



Annual noise contours Brussels Airport 2025

Final report

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Version 1.1

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1 Introduction

1.1 Background

The Flemish Government imposes an obligation on Brussels Airport Company to annually calculate noise contours in order to assess the noise impact caused by departing and landing aircraft on the area surrounding the airport. For Brussels Airport, these calculations are required under the Flemish Environmental Licensing Regulations (VLAREM).

These noise contours are calculated according to a strictly defined methodology (see §1.3) and reflect evolutions in the number of movements and fleet changes, as well as the actual use of runways and flight paths. Weather conditions and other events over the course of the year affect this actual use.

To check the accuracy of the calculations, the noise contours are compared with the sound measurements at a number of locations around the airport.

Between 1996 and 2014, these contours were calculated by the Acoustics and Thermal Physics Laboratory at KU Leuven. Between 2015 and 2020, the WAVES research group at Ghent University took on this task. Since 2021, these calculations have been carried out by To70. The calculations are commissioned by the airport operator, Brussels Airport Company.

1.2 Disclaimer

This assignment is performed by recognised sound experts working at To70 with the explicit instructions to submit a report that complies with the legal obligations imposed on Brussels Airport Company pertaining to the applicable legislation. The recognised sound experts at To70 are responsible for the conformity of this report, but are not responsible for the quality and comprehensiveness of the raw data provided to them. For the purposes of this report, Rik Graas was engaged on behalf of To70 as an accredited environmental expert on noise and vibration.

This report does not contain information, opinions or advice on the applicable (environmental) legislation at federal or regional level and is not suitable to be used for this purpose.

1.3 Mandatory calculations

The operator of an aerodrome classified as Class I¹ is required by the VLAREM environmental legislation to have the following noise contours calculated annually:

¹ Class I Airports: airports that comply with the definition of the 1944 Chicago Convention establishing the International Civil Aviation Organization and have a runway of at least 800 metres

- L_{den} noise contours of 55, 60, 65, 70 and 75 dB(A) to show noise impact over 24 hours, and to determine the number of people who are potentially seriously annoyed;
- L_{day} noise contours of 55, 60, 65, 70 and 75 dB(A) to show noise impact during the day from 07:00 to 19:00;
- $L_{evening}$ noise contours of 50, 55, 60, 65, 70 and 75 dB(A) to show noise impact during the evening from 19:00 to 23:00;
- L_{night} noise contours of 45, 50, 55, 60, 65 and 70 dB(A) to show noise impact at night from 23:00 to 07:00;

The VLAREM environmental legislation stipulates that the noise contours are calculated using a calculation model that is compatible with the methodology as stated in ECAC Doc. 29, third edition (2005) or a later edition. On 7 December 2016, the fourth edition of ECAC Doc. 29 was adopted. As such, the fourth edition serves as the guideline for the calculation method.

In addition to the VLAREM obligations, the environmental permit² granted to Brussels Airport Company requires extra noise contour calculations for:

- L_{den} noise contours from 45 dB(A) upwards, and L_{night} noise contours from 40 dB(A) upwards
- Frequency contours for 70 dB(A) and 60 dB(A):
 - Frequency contours for 70 dB(A) during the daytime period (07:00 to 19:00) for the following frequencies: 5x, 10x, 20x, 50x and 100x;
 - Frequency contours for 70 dB(A) during the evening period (19:00 to 23:00) for the following frequencies: 1x, 5x, 10x, and 20x;
 - Frequency contours for 70 dB(A) during the night period (23:00 to 07:00) for the following frequencies: 1x, 5x, 10x, and 20x;
 - Frequency contours for 60 dB(A) during the daytime period (07:00 to 19:00) for the following frequencies: 50x, 100x, 150x, and 200x;
 - Frequency contours for 60 dB(A) during the evening period (19:00 to 23:00) for the following frequencies: 10x, 15x, 20x, and 30x;
 - Frequency contours for 60 dB(A) during the night period (23:00 to 07:00) for the following frequencies: 10x, 15x, 20x, and 30x.

The number of people who are potentially seriously annoyed within the different L_{den} contour zones (55 dB(A) and above) is to be determined on the basis of the dose-response relationship included in VLAREM. The environmental permit also requires the number of people who are severely annoyed (45 dB(A) L_{den} and above) and number of people experiencing severe sleep

² Environmental permit OMV/2022106386 granted on 29 March 2024 to Brussels Airport Company. This permit was revoked by a ruling of the Council for Permit Disputes on 17 July 2025. In the same ruling, the Council ruled that, pending the issue of a new environmental permit, the effects of the revoked environmental permit would remain in force until 30 June 2029.

disturbance (from 40 dB(A) L_{night} and above) to be determined on the basis of the dose-response relationship established by the WHO.

The noise zones must be shown on a 1/25 000 scale map.

1.4 History of noise contours

The annual calculation of noise contours started in 1996. Until VLAREM was amended to comply with the European guideline on environmental noise (2002/49/EG) in 2005, the following division of the operational day was used (day: 06:00 – 23:00; night: 23:00 – 06:00). Since the point where VLAREM was brought in line with the Directive, the officially reportable noise contours are calculated according to the day format of the Directive (day: 07:00 – 19:00; evening: 19:00 – 23:00; night: 23:00 – 07:00).

Since 2011, the INM 7 model (sub-version INM 7.0b) has been used for the calculation of the noise contours. Model version 6.0c was used for the officially reported noise contours every year from 2000 to 2010. As the model used and the associated aircraft database affect the calculated noise contours, the noise contours for the year 2000 and for the years 2006 to 2010 were recalculated using version 7.0b³. That way, the evolution of the noise contours since the year 2000 can be mapped without any influence by the calculation model used.

Since the start of 2021, the calculations have been made using the Echo calculation model, developed by AerLabs BV. Under Echo, the calculations are performed according to the methodology stated in ECAC Doc. 29, fourth edition. In addition to this, refinements have been implemented since 2021 with respect to previous annual calculations in the data used and the input data in the calculations. In addition, the year 2019 has also been recalculated in the context of the EIA, using this updated calculation model. Further details of the changes in the method of calculation and the effects on the calculated noise levels are described in Appendix F.

Since 2021, the calculation of the noise contours has been performed using the Echo noise calculation model. Echo has been set up in accordance with the specifications of ECAC Doc. 29, fourth edition (2016). Echo has been verified on the basis of the verification framework of ECAC Doc. 29, fourth edition, Volume 3. Echo makes use of ANP database version 2.3.

This software meets the conditions stated in VLAREM: "Noise contours must be calculated using a calculation model compatible with the methodology, as stated in ECAC Doc. 29, third edition (2005) or a later edition." The software also complies with the European Environmental Noise Directive 2002/49/EC.

³ For the 60 and 70 dB(A) frequency contours, only the year 2010 was calculated using version 7.0b of the INM calculation model

1.5 Population data

To determine the number of residents and the number of people who are potentially seriously annoyed within the contour zones, the most recent population data as of 1 January 2026 is used. Additionally, population data as of 1 January 2022 is used to determine the number of people who are severely annoyed and who experience severe sleep disturbance in accordance with the provisions included in the special conditions of the environmental permit.

For 2017, the noise contours reports determined the exposed population on the basis of a homogeneous distribution of population over the area of the statistical sector. Since 2017, the calculation method has been refined by including the actual location of the address points. Based on the address files in the Brussels-Capital Region, Wallonia, and Flanders, in combination with the population information per statistic sector, the number of persons is calculated for each address location. This is done by uniformly distributing the number of persons per statistic sector over the number of address locations. In Flanders, address locations on business estates were excluded, unless there are several address locations in a statistical sector on business estates. The above is only applicable to locations in Flanders since an address file for industrial estates within the Brussels-Capital Region and Wallonia was not available.

1.6 Source data

For the calculation of the noise contours, and in order to be able to compare the results against those of the noise monitoring network, Brussels Airport Company has made source data available. A comprehensive summary of these source data carrying references to the corresponding files has been included in Appendix G.

2 Definitions

2.1 Explanation of a few frequently used terms

2.1.1 Noise contours

As a result of flight traffic, noise impact is either observed or calculated for every point around the airport. Due to a difference in distance from the noise source, these values may vary sharply from one point to another. Noise contours are isolines or lines of equal noise impact. These lines connect together points where equal noise impact is observed or calculated.

The noise contours with the highest values are those situated closer to the noise source. Further from the sound source, the value of the noise contours is lower.

2.1.2 Frequency contours

The acoustic impact of aircraft passing overhead can be characterised at every point around the airport by, for example, the maximum noise level observed during any such pass. This maximum noise level can be determined, for example, as the maximum of the equivalent sound pressure levels over one second ($L_{Aeq,1s,max}$) while the aircraft passes overhead.

The number of times that the maximum sound pressure level exceeds a particular value can be calculated for the passage of all aircraft over the course of a year. The number of times on average that this value is exceeded each day is the excess frequency. Frequency contours connect locations where this number is equal.

2.1.3 Noise zones

A noise zone is the zone delimited by two successive noise contours. The 60-65 dB(A) noise zone, for example, is the zone between the noise contours of 60 and 65 dB(A).

2.1.4 The A-weighted equivalent sound pressure level $L_{Aeq,T}$

The noise caused by aircraft passing overhead is not a constant noise, but has the characteristic of rising sharply to a maximum level and declining sharply again afterwards. Noise impact at a specific place resulting from fluctuating sounds over a period is represented by the A-weighted equivalent sound pressure level $L_{Aeq,T}$.

The A-weighted equivalent sound pressure level $L_{Aeq,T}$, over a period T, is the sound pressure level of the *constant* sound that contains the same acoustic energy as the fluctuating sound during the same period. The unit for an A-weighted equivalent sound pressure level is the dB(A).

The designation A-weighted (index A) means that an A-filter is used to determine the sound pressure levels. This filter reflects the pitch sensitivity of the human ear. Sounds at frequencies to which the ear is sensitive are weighted more than sounds at frequencies to which our hearing is less sensitive. Internationally, A-weighting is accepted as the standard measurement

for determining noise impact around airports. The use of A-weighting is also required by the VLAREM legislation on airports.

This report calculates three types of $L_{Aeq,T}$ contours, namely:

- L_{day} : the A-weighted equivalent sound pressure level for the daytime period, defined as the period between 07:00 and 19:00;
- $L_{evening}$: the A-weighted equivalent sound pressure level for the evening period, defined as the period between 19:00 and 23:00;
- L_{night} : means the A-weighted equivalent sound pressure level for the night period, defined as the period between 23:00 and 07:00.

2.1.5 L_{den}

The European directive on the control and assessment of environmental noise (transposed in VLAREM II), recommends using the L_{den} parameter to determine the exposure to noise over a longer period. The L_{den} (**Level Day-Evening-Night**) is the A-weighted equivalent sound pressure level over 24 hours, with a (penalty) correction of 5 dB(A) applied for noise during the evening period (equivalent to an increase of the number of evening flights by a factor of 3.16), and 10 dB(A) during the night (equivalent to an increase of the number of night flights by a factor of 10). For the calculation of the L_{den} noise contours, the day is divided as per section 57 of VLAREM II, with the evening period from 19:00 to 23:00 and the night period from 23:00 to 07:00. L_{den} is the weighted energetic sum of these three periods with a weighting according to the number of hours in each period (12 hours for the day, 4 hours for the evening and 8 hours for the night).

2.2 Link between nuisance and noise impact

An exposure relationship is imposed by Vlarem II - Chapter 5.57 to determine the number of people who are potentially seriously annoyed within the L_{den} noise contour of 55 dB(A). This formula gives the percentage of the population that is potentially severely annoyed in terms of the noise level expressed in L_{den} (Figure 1).

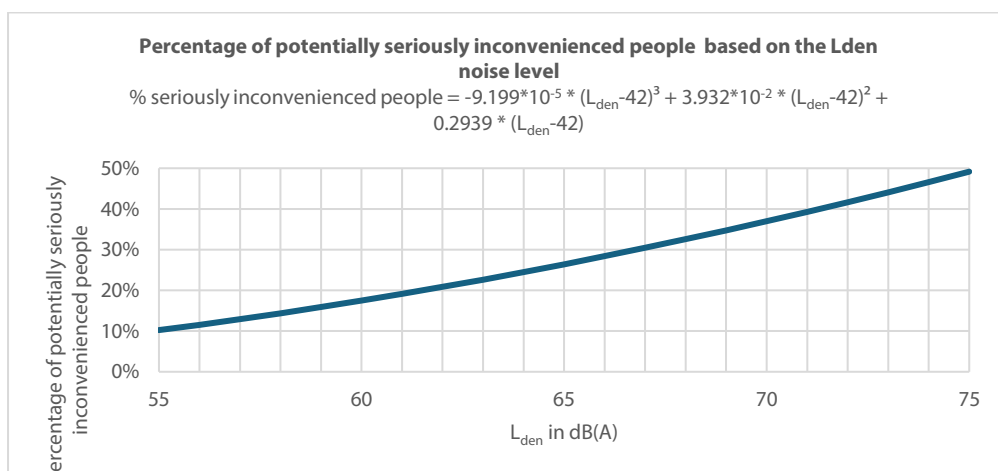


Figure 1: Percentage of people who are potentially seriously annoyed as a function of L_{den} for aircraft noise

(Source: VLAREM – environmental legislation based on Miedema 2000)

The above formula derives from a synthesis/analysis of various noise studies conducted by Miedema around several European and American airports⁴ and was adopted by the WG2 Dose/Effect of the European Commission⁵. Note that L_{den} only determines about 30% of the variance in reported severe inconvenience^{6,7}.

The special conditions of the airport's environmental permit include the additional requirement to annually determine the number of people who are severely annoyed within the L_{den} noise contour of 45 dB(A) (Figure 2) and the number of people who experience severe sleep disturbance within the L_{night} noise contour of 40 dB(A) (Figure 3) using the exposure-effect relationship specified by the WHO⁸. In an extension of the European Environmental Noise Directive (EU Directive 2002/49/EC)⁹, the new WHO exposure-effect relationships are adopted in the EU Directive.

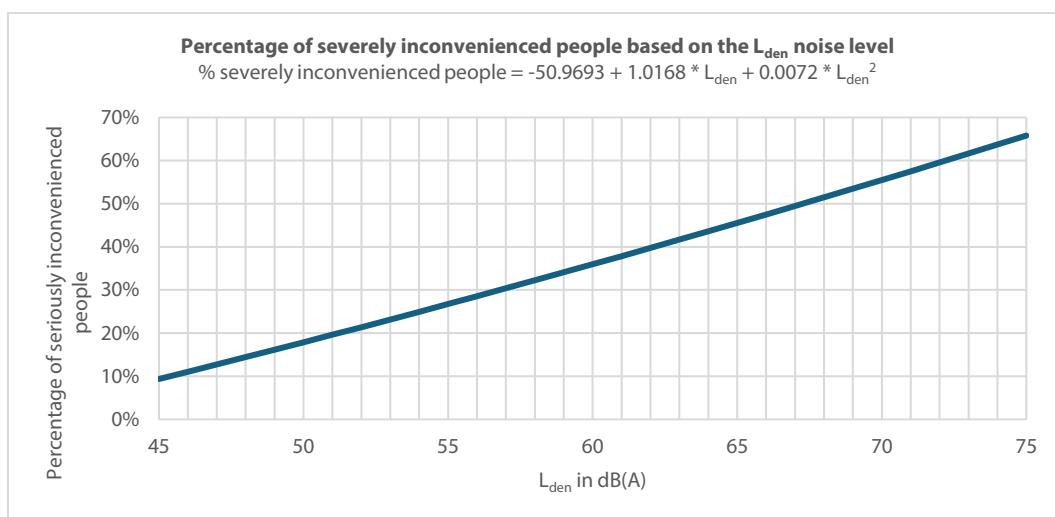


Figure 2: Percentage of people who are severely annoyed as a function of L_{den} due to aircraft noise.

⁴ Miedema H.M.E., Oudshoorn C.G.M., Elements for a position paper on relationships between transportation noise and annoyance, TNO report PG/VGZ/00.052, July 2000

⁵ European Commission, WG2 – Dose/effect, Position paper on dose response relationships between transport noise and annoyance, 20 February 2002

⁶ van Kempen EEMM et al. Selection and evaluation of exposure-effect relationships for health impact assessment in the field of noise and health, RIVM Report No. 630400001/2005. Bilthoven: RIVM; 2005.

⁷ Kroesen M, Molin EJE, van Wee B. Testing a theory of aircraft noise annoyance: a structural equation analysis. J Acoust Soc Am 2008;123:4250–60.

⁸ WHO Europe, Environmental Noise Guidelines for the European Region (2018), ISBN 978 92 890 53563

⁹ COMMISSION DIRECTIVE (EU) 2020/367 of 4 March 2020 amending Annex III to Directive 2002/49/EC of the European Parliament and of the Council as regards the determination of methods for determining the harmful effects of environmental noise.

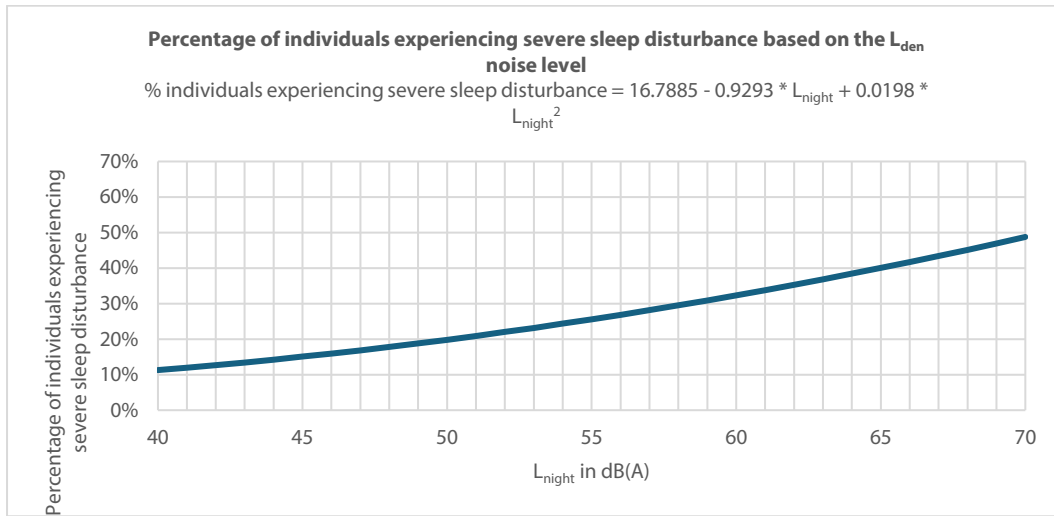


Figure 3: Percentage of individuals experiencing severe sleep disturbance as a function of L_{night} due to aircraft noise.

3 Methodology

Since the start of 2021, noise contours have been calculated using the Echo calculation model developed by AerLabs BV. This model and the methodology used comply with the methodology prescribed in the VLAREM legislation (Chapter 5.57 Airports), 29, fourth edition (2016). Supplementary to this, several details have been implemented in the calculation methodology compared to the previous annual calculations from 2021 onwards. This chapter provides a description of the working method.

The procedure for calculating noise contours consists of three phases:

- Collection of information concerning flight movements, the routes flown, aircraft characteristics and meteorological data.
- Performing noise calculations using the Echo calculation model.
- Processing contours using a Geographic Information System (GIS).

3.1 Data input

The annual calculations are based on the actual number of flights, broken down into the number of flights during the day (07:00 - 19:00), evening (19:00 - 23:00) and night (23:00 - 07:00).

The following data is required to specify aircraft movements:

- Aircraft type
- Time
- Type of movement (departure/arrival)
- Destination or origin
- Runway used for landing/take-off
- Flight path followed

The flight information is provided by Brussels Airport Company as an export of the flight movements from the central database (CDB). All the necessary information is stored in this database. The quality of the data is very good.

Each aircraft type is linked to an aircraft type for which the noise and performance data needed for noise calculations are included in the Aircraft Noise and Performance (ANP) database (see §3.2). In most cases, the aircraft type is present in the ANP database. For a small fraction of aircraft that cannot be directly linked, a suitable type is identified based on the number and type of engines and starting weight.

Helicopters are not included specifically in the calculations, but are added proportionally to the flight movement type (landing/take-off) and the time of day. In 2025, helicopter flights were responsible for about 1.0% of movements.

3.1.1 Radar data

Aircraft follow certain routes which are essentially determined by the runway used and the SID (Standard Instrument Departure) flown for take-offs, or by the runway used and the STAR (Standard Arrival Route) for arrivals. The existing SIDs and STARs are shown in the AIP (Aeronautical Information Publication). This official documentation specifies the procedures to be followed for the flight movements at a specific airport.

These descriptions for departure are not strict spatial specifications but established procedures. For example, when reaching a certain altitude or orientation point, a manoeuvre must be performed. When exactly this altitude and/or geographical location is reached depends on the aircraft type, weight (and indirectly on the destination), as well as weather conditions. This may result in a very large geographical distribution of the actual flight paths for the same SID. This creates bundles of movements that use the same or similar SIDs.

In the reporting up to and including 2020, a statistical division of the routes actually flown was used in the noise calculations per bundle based on radar data and translated to representative flights paths with a distribution of the traffic over these paths. For commonly used SIDs, these were further refined by a further breakdown based on aircraft type. As such, the representation of the flight paths was a statistical approximation of the actual flight paths.

Noise calculations since 2021 have been based on the actual flight paths of the flights, making direct use of the individual radar track of each aircraft in the calculation model. This radar data provides the position of the aircraft every four seconds. Based on these data, the flight path can be accurately represented.

Various start points (position where the aircraft comes onto the runway) are available on one runway. This start point is available for each flight based on information that originates from Skeyes and is supplied by Brussels Airport Company. In the noise calculations, take-offs are modelled from the actual start point on the runway. Approaches are modelled on the basis of the runway threshold, whereby a flight altitude of 50 foot above the runway threshold is assumed.

3.1.2 Meteorological data

For the calculation of the noise contours, the actual average meteorological conditions are used. These meteorological conditions are available for every thirty minutes (METAR) via Brussels Airport Company. The wind direction, wind speed and temperatures are linked to the individual flight movements. The headwind is calculated for each individual aircraft movement and for the runway used. In this way, an annual averaged meteorological condition, which is weighted for the number of flights under each meteorological condition, is obtained.

The wind speed is provided in accordance with the calculation method and converted to knots (kn). The meteorological parameters for 2025 are:

- Average headwind (annual average across all runways, take-off and landing): 7.1 kn.

- Average temperature: 11.9 °C.
- Average humidity: 74%.
- Average air pressure: 1016.44 mBar.

3.1.3 Take-off profile

The weight of the aircraft at departure influences the take-off profile. Given that this actual weight is not available in the CDB, a method proposed by ECAC Doc. 29 is used to take into account this effect (stage length). The Aircraft Noise and Performance (ANP) database provides an assumed take-off weight per stage length. It is assumed that the greater the distance from Brussels Airport to the destination, the more this aircraft will operate at its maximum take-off weight. This is justified, among other factors, by the fact that kerosene constitutes a significant part of the total weight of an aircraft. This complies with the methodology of the preceding annual reports.

The coordinates of all airports can be found on the following website:

<http://openflights.org/data>. This list is used to calculate the distance to Brussels Airport from any airport.

The profiles for take-offs are modelled according to the Noise Abatement Departure Procedure (NADP) 1, with acceleration at an altitude of 3,000 ft. This corresponds with the prescribed take-off procedure at Brussels Airport.

3.1.4 Approach profiles

In practice, flights approaching Brussels Airport descend from higher altitudes in a continuous descent to the runway or fly at a fixed altitude for a while before the final approach. Until 2020, one standard approach profile for approaching traffic was used in the noise calculations. In order to take into account the impact of the different approaches on noise, three approach profiles have been made available for approaching traffic for the calculation from 2021, and thus also this year:

- An approach profile with a continuous descent.
- An approach profile with a horizontal segment at c. 560 metres above the airport. This corresponds with an approach altitude of 2,000 ft above sea level.
- An approach profile with a horizontal segment at c. 870 metres above the airport. This corresponds with an approach altitude of 3,000 ft above sea level.

The allocation of the most appropriate approach profile for a flight is based on the radar data. Based on this linkage, 38.7% of approaching traffic is linked to a continuous descent, 36.6% to a descent with a horizontal segment at 2,000 ft and 24.7% to a descent with a horizontal segment at 3,000 ft.

3.2 Aircraft source data

Alongside the relevant data about aircraft movements, runway use and flight paths, the calculation of the noise impact also requires appropriate noise and performance data for the aircraft concerned. The source of the information is the international Aircraft Noise and Performance (ANP) databased, approved by the ECAC.

The ANP database gives noise and performance data of aircraft. The data in the database cover most larger, modern aircraft models and variants. Aircraft models and variants that are not included in the ANP database must be represented by substitutes (often designated as 'proxy' aircraft): aircraft with comparable noise and performance characteristics that are included in the ANP database, whereby a correction is applied based on the difference in noise impact based on noise certification data.

For the year calculation, use is made of ANP version 2.3 (October 2020). In 2022, seven aircraft types were added as 'proxy' aircraft to the ANP database, including NEO variants of the A320 and A321. These types have been considered in the performance of the annual calculations from 2022 onwards.

For the annual calculation, all registered passages are linked to a proxy based on the ANP Aircraft Substitution Tables.¹⁰ This link is made based on aircraft type and engine type. Some aircraft types cannot be linked on the basis of the substitution list. For those types, the allocation of the proxy aircraft is done based on the number and type of engines and start weight.

With regard to the proxy aircraft, a correction factor is applied in the noise calculations for the difference in noise impact between the actual aircraft type and the proxy aircraft. This correction is made on the basis of noise certification data. For most movements (99.04%), Brussels Airport Company has access to the noise certification data of the aircraft concerned. For the movements for which this is not the case, the correction is based on the correction in the ANP substitution list. That correction is each time based on the most noisy model variant of the aircraft concerned.

3.3 Match between measurements (NMS) and calculations (INM)

Echo enables calculations at specific locations around the airport. To check the assumptions concerning the input data and the accuracy of Echo, the calculated noise impact is compared with sound measurements taken at 31 locations.

The comparison with measurements provides a validation of the calculations. Both the noise calculations as well as the noise measurements bring certain limitations and uncertainties with them. The noise calculations do not, for example, take the actual altitude at which an

¹⁰ The ANP substitution list has been prepared for ANP version 2.2. In ANP version 2.3, the noise and performance data has been added for several new aircraft types. These types were added to the substitution list by To70.

aircraft flies overhead into account (this is determined by the assigned standard departure and approach profiles, not by the actual radar data). The measuring stations are unmanned because they are monitored continuously throughout the year. Local deviations caused by local noise events or background noise, for example, may affect the measured levels. Although these are removed from the measurements as far as possible (for example, through an automatic link between noise events and aircraft, based on the radar data), such contributions to the measured levels cannot be completely excluded.

If there is a sufficient correspondence between the annual averages of the measured noise vents and the annual average forecast based on the average day, over a sufficient number of measuring units, confidence can still be gained regarding the calculation method.

3.4 Technical data

The calculations are performed using Echo within a grid of 70 x 70 kilometres around the airport, with a grid mesh size of 250 metres. The altitude of the airport reference measuring point in relation to sea level is 175 ft.

3.5 Changes in calculation method compared to 2020 and previous years

An overview of the main changes in the method of calculation applied since the 2021 calculations and their effects on the results is described in Appendix F.

4 Results

4.1 Background information to help interpret the results

This section describes a number of air traffic statistics in order to provide a better picture of the evolution in traffic over the course of 2025 compared to previous years. For this, information such as the number of movements, the evolution of the fleet, and runway usage has been mapped.

4.1.1 Number of flight movements

One of the most important factors for the annual noise contours around an airport is the number of movements which occurred during the past year. Following the decline of the number of movements between 2011 and 2013, there was an increase of 6.9% in 2014 and a further increase of 3.4% in 2015. In 2016 the number of aircraft movements fell to 223.688 (-6.5%). This is largely a result of a temporary closure following the attacks on the airport on 22 March 2016. In 2017, the number of movements increased by 6.3% to 237.888. In 2018, the number of movements increased by 1.0% to 235.459. In 2019 there was once again a slight decline of 0.4% and the total number of movements was 234,460. In 2020, the picture was entirely defined by the impact of the global pandemic and the consequences for international travel. The number of flight movements fell by 59.1% to 95,811. In 2022 there were 178,930 aircraft movements, which is an increase of 50.7% compared to 2021. In 2023, the number of flight movements increased by 7.4% compared to 2022, to 192,257 movements. In 2024, this figure went up to 198,617 movements. In 2025, the number of aircraft movements increased for the fourth consecutive year to 204,147¹¹, up 2.8% from 2024. Despite this growth, the number of movements is still 12.9% lower than in 2019 and the airport has not yet reached its pre-pandemic level.

¹¹ This figure includes 5,777 exempt flights, meaning the number of non-exempt flights in 2025 was 198,370.

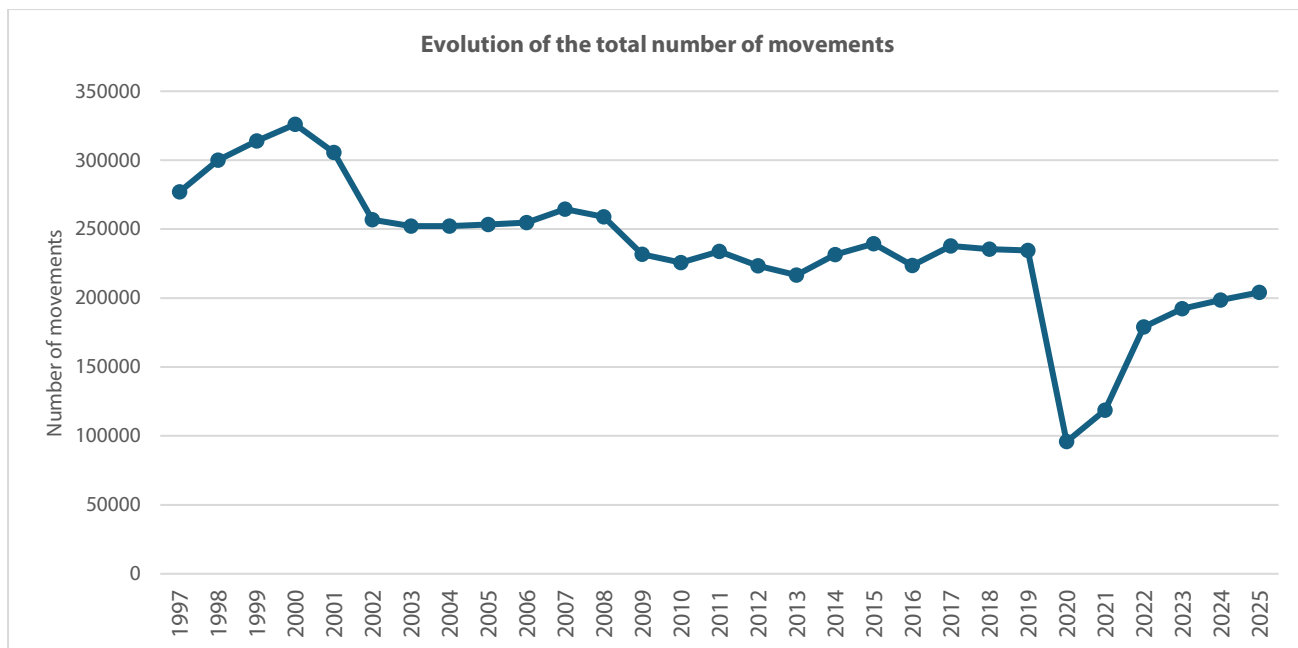


Figure 4: Evolution of flight traffic (all movements) at Brussels Airport.

The number of night movements (23:00 to 06:00 hours) decreased by 0.9% from 16,380 in 2024 to 16,237 in 2025, as shown in Figure 5. As a result, there were about 1,100 fewer night movements in 2025 compared to 2019 (17,347 night movements). In 2025, there were 4,885 nighttime departures. This includes helicopter movements and flight movements exempt from slot coordination, such as government and military flights. 299 night movements were exempt in 2025.

The primary reason for the reduction in night flights is the decrease in flights lacking a night slot; these flights frequently operated at night due to operational issues like delays or technical problems. Recent years have seen active cooperation among Brussels Airport Company, the slot coordinator, and the involved airlines, all aimed at minimising this proportion of flights.

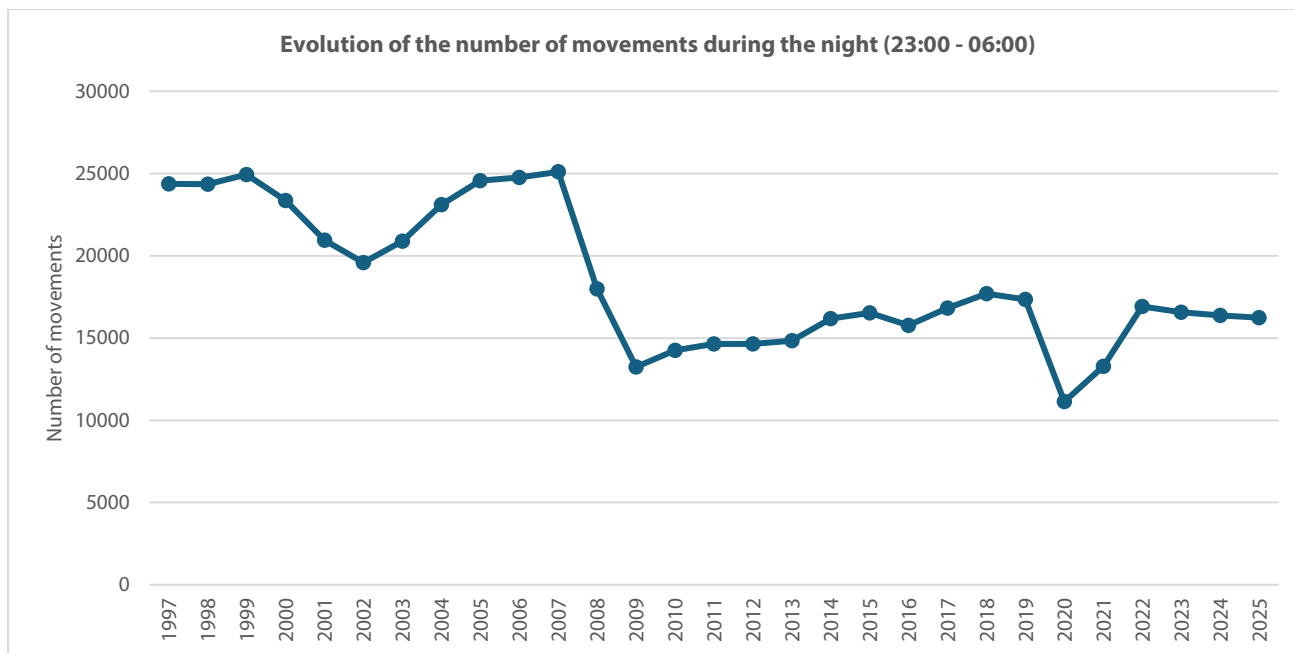


Figure 5: Evolution of flight traffic during the night (23:00-06:00) at Brussels Airport.

At 15,771 (15,866 in 2024), of which 4,374 for departure (4,743 in 2024), the number of night slots allocated¹² for aircraft movements for the year 2025 remained within the limits imposed on the Brussels Airport slot coordinator, which has been allowed to allocate a maximum of 16,000 night slots annually since 2009, of which a maximum of 5,000 for departure (MB 21/1/2009, Brussels Airport Company environmental permit).

The number of movements during the operational day period (06:00 to 23:00) rose by 3.1% from 182,237 in 2024 to 187,910 in 2025. The evolution of the number of movements in 2025 compared to 2024 is reflected in Table 1. The numbers for the night period are further broken down into operational night (23:00 - 06:00) and the morning period (06:00 - 07:00).

Table 1: Number of movements (including helicopter movements) in 2025 and evolution compared to 2024

| period | 2024 | | | 2025 | | | relative difference compared to 2024 | | |
|-------------------------|----------|------------|---------|----------|------------|---------|--------------------------------------|------------|-------|
| | landings | departures | total | landings | departures | total | landings | departures | total |
| day (07:00 - 19:00) | 64,873 | 65,702 | 130,575 | 66,269 | 68,515 | 134,784 | +2.2% | +4.3% | +3.2% |
| evening (19:00 - 23:00) | 20,845 | 21,496 | 42,341 | 21,738 | 21,373 | 43,111 | +4.3% | -0.6% | +1.8% |
| night (23:00 - 07:00) | 13,593 | 12,108 | 25,701 | 14,062 | 12,190 | 26,252 | +3.5% | +0.7% | +2.1% |
| 00:00 - 24:00 | 99,311 | 99,306 | 198,617 | 102,069 | 102,078 | 204,147 | +2.8% | +2.8% | +2.8% |
| 06:00 - 23:00 | 88,031 | 94,206 | 182,237 | 90,717 | 97,193 | 187,910 | +3.1% | +3.2% | +3.1% |
| 23:00 - 06:00 | 11,280 | 5,100 | 16,380 | 11,352 | 4,885 | 16,237 | +0.6% | -4.2% | -0.9% |
| 06:00 - 07:00 | 2,313 | 7,008 | 9,321 | 2,710 | 7,305 | 10,015 | +17.2% | +4.2% | +7.4% |

¹² night slot: permission granted by the coordinator of Brussels National airport, in accordance with Council Regulation (EEC) No 95/93 of 18 January 1993 on common rules for the allocation of slots at Community airports, to use the entire infrastructure necessary for the operation of an air service at Brussels National airport at a specified date and time of landing or take-off during the night as allocated by the coordinator.

The general increase of 2.8% in the number of movements on an annual basis between 2025 and 2024 is evenly distributed throughout the day (+3.2%) and morning between 06:00 and 07:00 (+7.4%). The relative increase in the number of nighttime flights (between 19:00 and 23:00) is the lowest (+1.8%). The number of movements in the operational night period (between 23:00 and 06:00) has actually decreased (-0.9%).

4.1.2 Other notable evolutions

In addition to the number of flight movements, there are a number of other parameters that also determine the size and the position of the noise contours, such as the runway and the route used, flight procedures and the fleet used. The most important changes are summarised in the following paragraphs.

Fleet changes during the day and in the evening (07:00 and 23:00).

Figure 6 reflects the evolution of the most commonly used aircraft types during the day and evening (between 07:00 and 23:00:00) for heavy aircraft (starting weight from 136 tons, heavy aircraft) and Figure 7 does so for lighter aircraft (starting weight up to 136 tons). Only aircraft types that have on average flown 1x per day in 2024 and 2025 are shown.

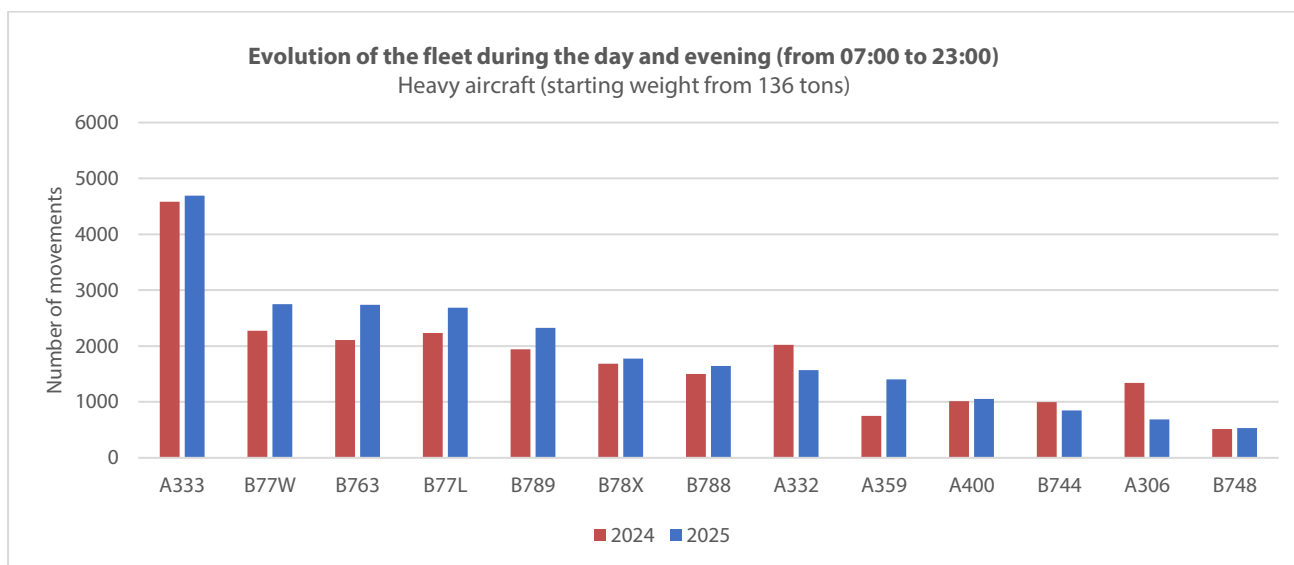


Figure 6: Evolution of the number of aircraft movements involving heavy aircraft between 07:00 and 23:00.

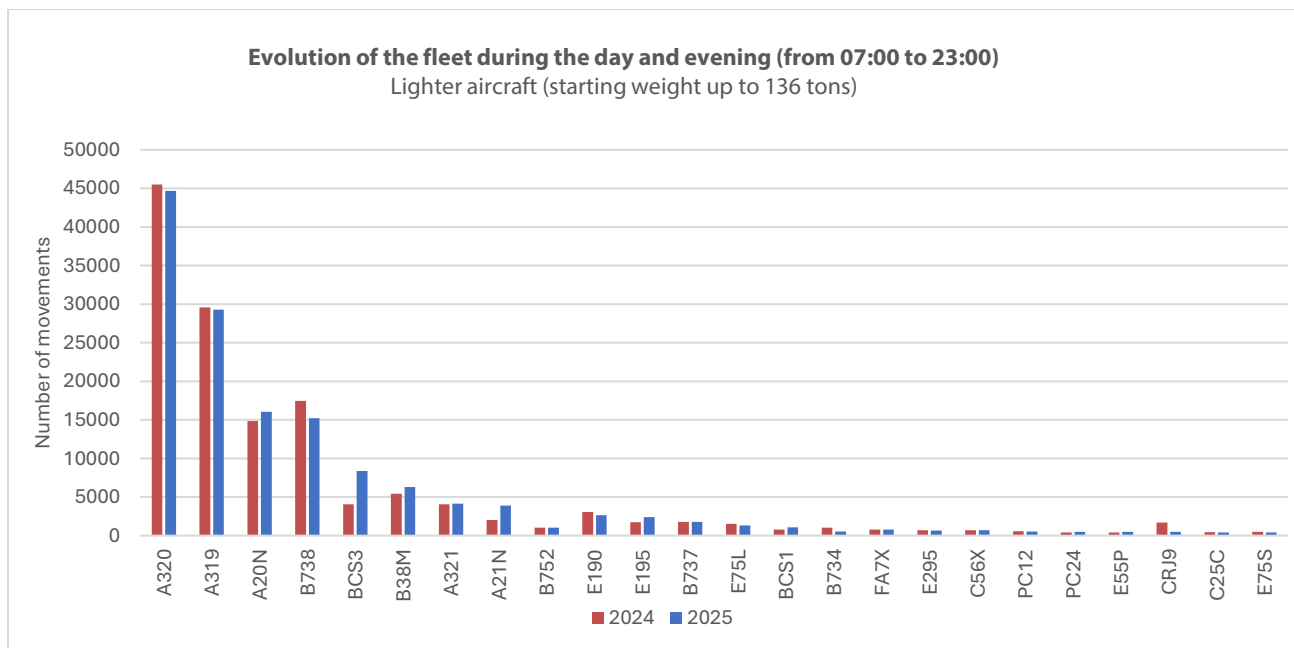


Figure 7: Evolution of the number of aircraft movements involving lighter aircraft between 07:00 and 23:00.

In general, the most-used aircraft were the A320, the A319 and the A320-neo (collectively responsible for 50.6% of all movements in 2025 between 07:00 and 23:00). Elsewhere, the evolution in the fleet over the course of 2025 compared to 2024 is visible in the number of movements involving aircraft types BCS3 (also known as the A220-300) (up from 4,064 movements in 2024 to 8,378 in 2025), A20N (14,864 movements in 2024 and 16,057 movements in 2025), B38M (5,415 movements in 2024 and 6,286 movements in 2025), and A21N (2,014 movements in 2024 and 3,900 in 2025). On the other hand, the use of types B738 and CRJ9 decreased by 12.9% and 71.1% respectively.

The A333 remains the most common heavy aircraft with an increase of 2.4%, followed by the B77W and the B763. Elsewhere, a general increase in movements of heavier aircraft is also visible, mainly involving types B77W (+20.7%), B763 (+29.9%), B77L (+20.1%), B789 (+19.8%), A359 (+87.2%) and A35K (+101.4%). A drop in the number of movements involving heavy aircraft is also visible for types A332 (-22.3%) and B744 (-15.0%).

Fleet changes in the night period (from 23:00 to 07:00)

The evolution of the most commonly used aircraft types in the night (between 23:00 and 07:00) is available in Figure 8 for arrivals and in Figure 9 for departures. Only aircraft types that have on average flown 1x per week in 2024 and 2025 are shown.

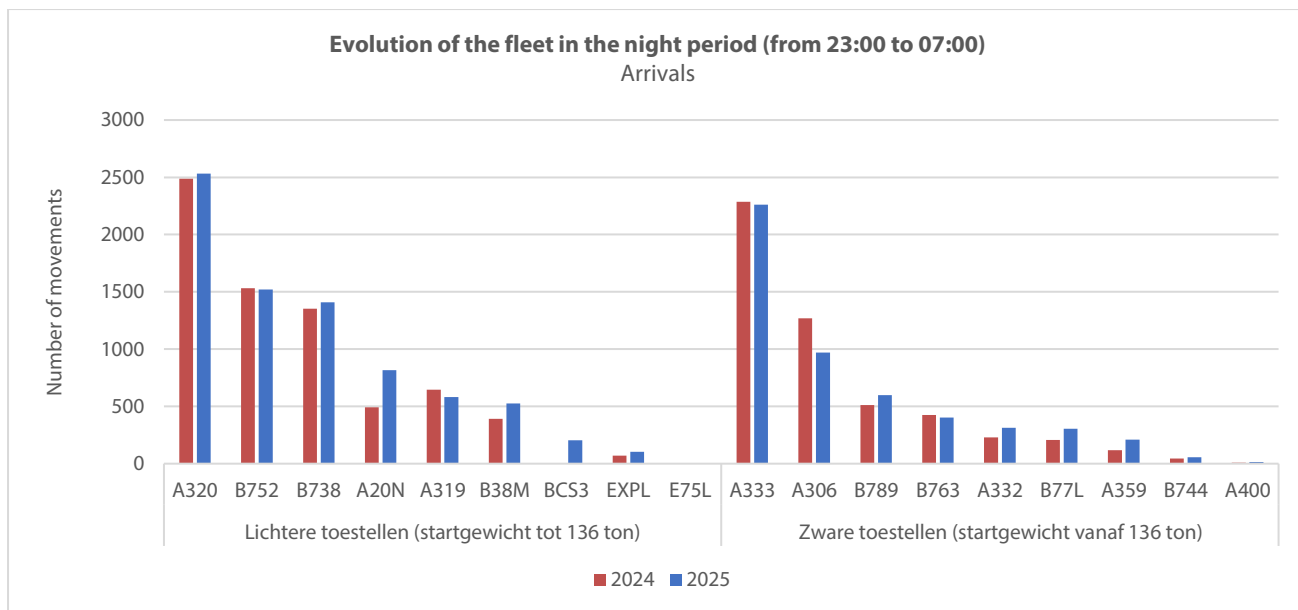
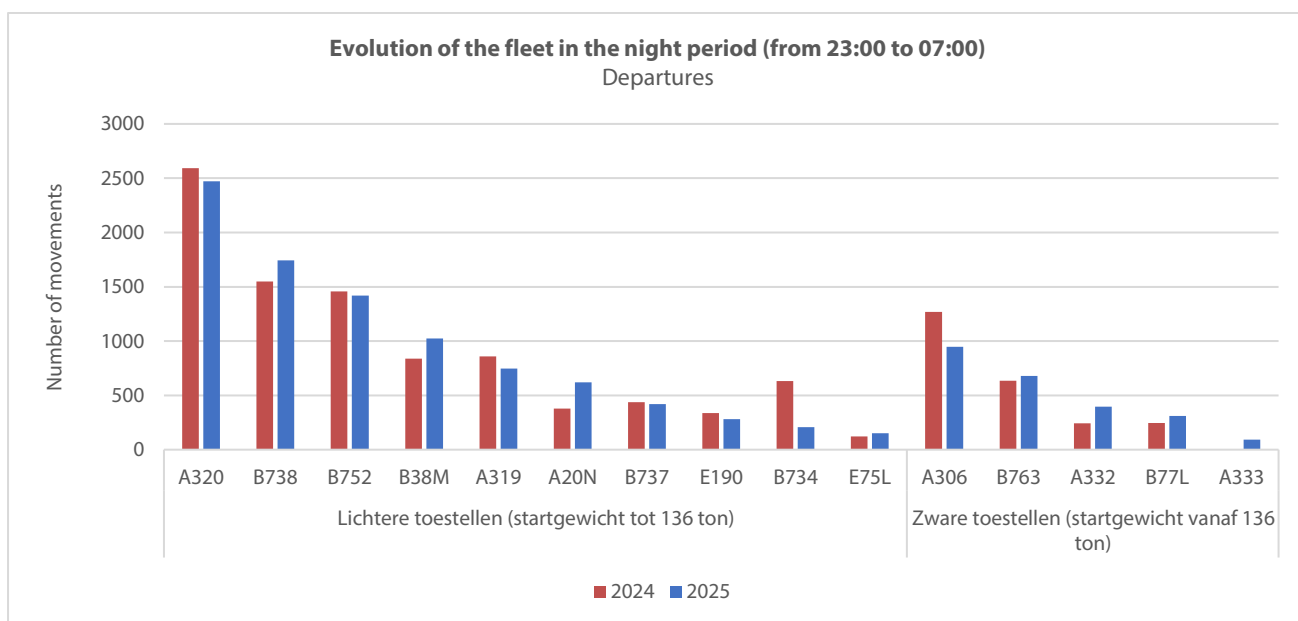


Figure 8: Evolution of the number of arrivals in the night period (from 23:00 to 07:00).



Figuur 9: Evolution of the number of departures in the night period (from 23:00 to 07:00 hours).

The number of arrivals by lighter aircraft at night increased by 4.2% compared to 2024. The number of departures also increased slightly by 0.6%, mainly due to an increasing number of departures by newer aircraft including types A20N (+39.0%), B38M (+21.0%) and the new BCS3 (+99.0%). On the other hand, the use of types A320, B752 and A319 has decreased. The number of arrivals in the night involving heavy aircraft increased by 2.3% compared to 2024. The number of departures in the night involving heavy aircraft increased by 1.0% compared to 2024. The A333 is the most common heavy aircraft, followed by the A306, B763 and the A332. For arriving traffic, the fleet renewal is visible in the increased use of types B789 and A359.

Runway and route usage

Preferential runway usage

The preferential runway usage, published in the AIP (Skeyes), indicates which runway is preferably to be used, depending on the time the movement occurs. Over certain periods, preferential runway use also considers the aircraft's destination (exit point) and maximum take-off weight. No changes were made to this schedule during 2025 (see Table 2).

If the preferential runway configuration cannot be used (e.g. due to meteorological conditions, runway maintenance, etc.), Skeyes will choose the most appropriate alternative configuration, taking into account weather conditions, runway equipment, traffic demand, etc. For this purpose, the preferential runway usage schedule includes wind limits, expressed as maximum crosswinds and maximum tailwind for each runway. To prevent these limits being exceeded, air traffic control must, when the situation arises, switch to an alternative configuration. Under preferential runway usage conditions, the maximum tailwind is 7 kt and the maximum crosswind is 20 kt. In the event of alternative runway usage, the maximum speeds are also 20 kt for crosswind but only 3 kt for tailwind.

Table 2: Preferential runway use since 19/09/2013 (source: AIP)

| | | Day | | Night |
|--------------------------|-----------|------------------------|------------------------|------------------------|
| | | 06:00 to 15:59 | 16:00 to 22:59 | 23:00 to 05:59 |
| Mon 06:00 – Tue 05:59 | Departure | 25R | | 25R/19 ⁽¹⁾ |
| | Landing | 25L/25R | | 25R/25L ⁽²⁾ |
| Tue 06:00 – Wed 05:59 | Departure | 25R | | 25R/19 ⁽¹⁾ |
| | Landing | 25L/25R | | 25R/25L ⁽²⁾ |
| Wed 06:00 – Thu 05:59 | Departure | 25R | | 25R/19 ⁽¹⁾ |
| | Landing | 25L/25R | | 25R/25L ⁽²⁾ |
| Thu 06:00 – Fri 05:59 | Departure | 25R | | 25R/19 ⁽¹⁾ |
| | Landing | 25L/25R | | 25R/25L ⁽²⁾ |
| Fri 06:00 – Sat 05:59 | Departure | 25R | | 25R ⁽³⁾ |
| | Landing | 25L/25R | | 25R |
| Sat 06:00 – Sun 05:59 | Departure | 25R | 25R/19 ⁽¹⁾ | 25L ⁽⁴⁾ |
| | Landing | 25L/25R | 25R/25L ⁽²⁾ | 25L |
| Sun 06:00 – Mon 05:59 | Departure | 25R/19 ⁽¹⁾ | 25R | 19 ⁽⁴⁾ |
| | Landing | 25R/25L ⁽²⁾ | 25L/25R | 19 |

(1) Runway 25R for traffic via ELSIK, NIK, HELEN, DENUT, KOK and CIV / Runway 19 for traffic via LNO, SPI, SOPOK, PITES and ROUSY (aircraft with MTOW between 80 and 200 tonnes can use runway 25R or 19, aircraft with MTOW > 200 tonnes must use runway 25R, regardless of their destination).

(2) Runway 25L only if air traffic control considers this necessary.

(3) Between 01:00 and 06:00, no slots may be allocated for departures.

(4) Between 00:00 and 06:00, no slots may be allocated for departures.

Use of runways

Generally speaking, the increased number of movements in 2025 compared to 2024 is also expressed in an increased volume of arriving and departing traffic on the various runways. Even so, the number of landings on 25L and departures from 25R have decreased. These effects are visible both during the day and evening (Figure 10) and at night (Figure 11). A complete account of the runway use is given in Annex A.

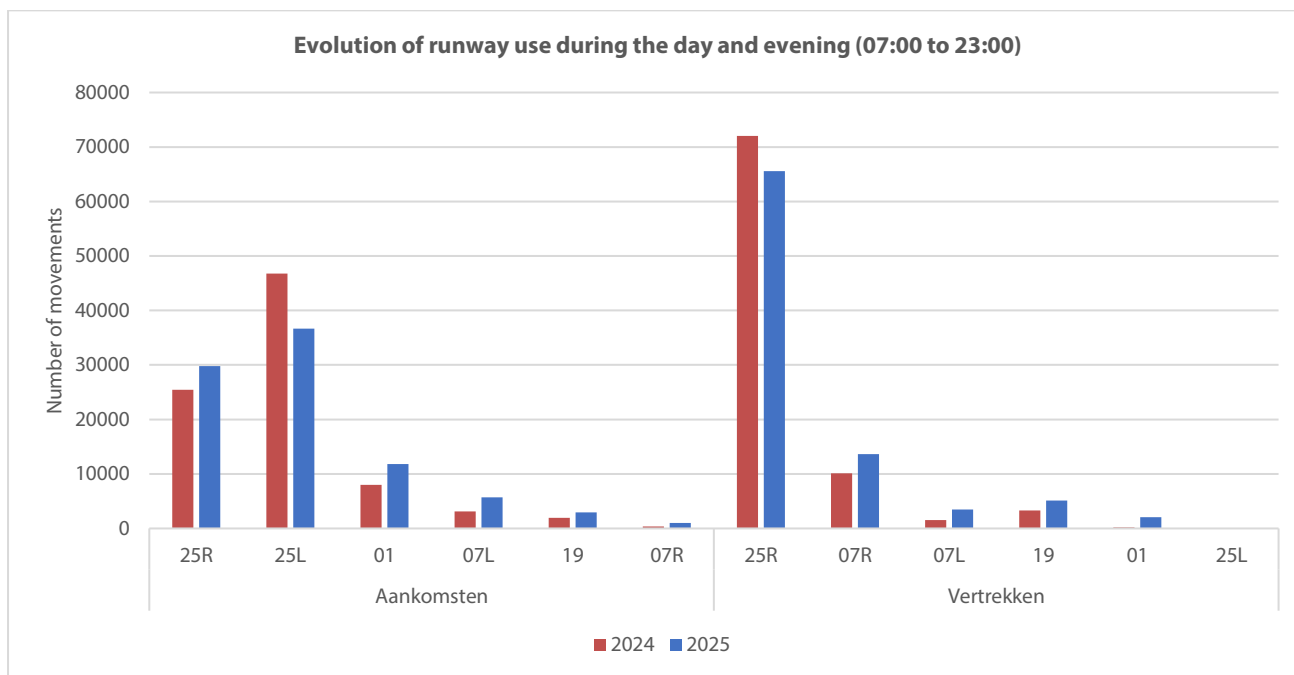


Figure 10: Evolution of the runway use between 07:00 and 23:00.

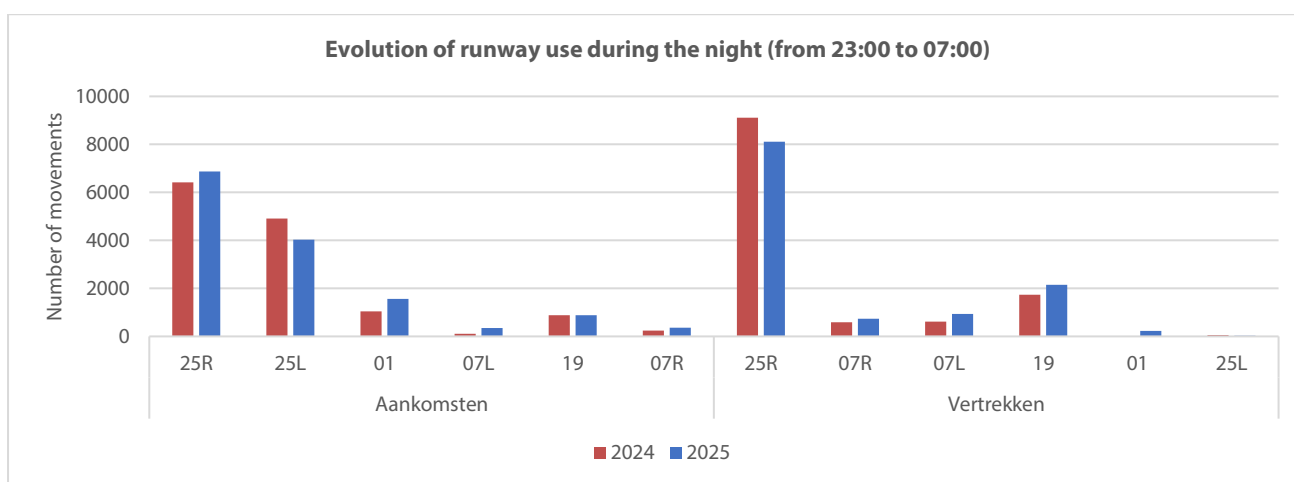


Figure 11: Evolution of the runway use during the night period (from 23:00 to 07:00).

Despite a decrease in volume compared to 2024, runway 25R remains the most used runway direction for departures in 2025 for both the day/evening and night periods, due to the preferential runway schedule and the prevailing wind conditions. The other runways have all seen an increase: more than 100% for 07L (1,520 in 2024 to 3,486 in 2025) and 01 (198 departures in 2024 to 2092 departures in 2025). Even though the increase for runway 01 is highly notable in terms of percentage, the absolute number of departures remains significantly lower than on other runways (except for runway 25L).

These shifts in runway use are partially a consequence of maintenance works on runway 07R/25L over the summer period, which saw aircraft that would normally land on runway 25L being shifted to runway 25R more often. On top of that, alternative configurations (non-PRS¹³) were often required due to meteorological circumstances, causing an increase in the use of runways 01, 07L and 07R. What's more, runways 07L and 07R could not be used simultaneously in the first half of the year. As a consequence, a configuration involving landings and departures on runway 07L was applied instead of landings on 07L and departures from 07R as usual, which also explains why the number of departures from 07L is higher than those from 07R, even though this is generally the other way round.

Runway 25L remains the most commonly used runway for arrivals in the day and evening periods, despite a decrease of 21.6% compared to 2024. All other runways saw an increase over the course of 2025, with the greatest increase in terms of percentage on runways 07R and 07L, and the greatest total increase on runway 25R. Elsewhere, the number of night arrivals increased by 7.1% on runway 25R and by 50.0% on runway 01, while the number of landings on 25L actually decreased by 17.9%.

Route usage

In 2025, a new landing procedure was introduced for arrivals on runway 07L. This RNP landing procedure was introduced at the start of the renovation works on runway 07R/25L and remained in operation afterwards. Figure 12 shows the flightpaths for approaches to runway 07L for both the conventional VOR procedure and the RNP procedure. In this RNP procedure, aircraft are already aligned with the runway further away, while the older VOR procedure contained a left turn right before landing.

¹³ Non-preferential runway use

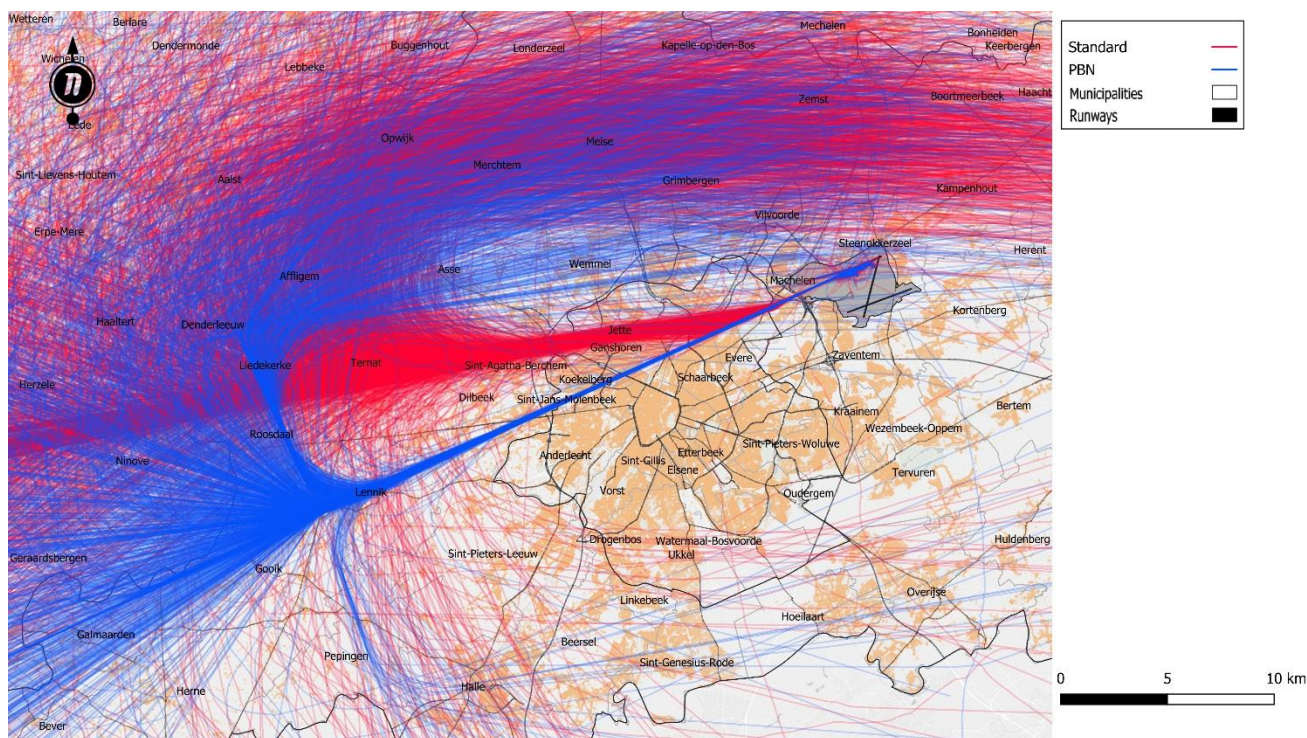


Figure 12: Visualisation of VOR (red) and RNP (blue) approach procedures for runway 07L into Brussels Airport

4.2 Comparison of measurements and calculations

Echo enables a number of acoustic parameters to be calculated at a specified location around the airport. The extent to which the calculated values correspond to the values registered and processed by the measuring system can be evaluated by performing these calculations at the Noise Monitoring System (NMS) measuring station locations. Different data sources are used in the NMS system and are correlated with each other: noise measurements, flight lists (CDB), radar tracks and weather. The comparison between measurements and calculations is made for the level indicators $L_{Aeq,24h}$, L_{night} and L_{den} .

The calculated values are compared with the values of the aircraft correlated measured noise events. These are noise events whereby an automatic link could be made in the NMS with the flight and radar data.

The system of correlation is imperfect and it is possible for events to be incorrectly attributed to overflying traffic and vice versa. To minimise the contribution of such incorrect classifications, a trigger level is set with a minimum duration time: an event is expected only when the trigger level of 10 s is exceeded. The event ends when the trigger level is not achieved during 5 s. The trigger levels are set for each measuring station and depend on the local noise in the area. These trigger levels were evaluated in the beginning of 2015 and adjusted for several measuring stations. At that time, the maximum duration of an event was increased from 75 s (for 2014) to 125 s. Over the previous years, and for 2025, this criterion was retained. In events of even longer duration, the chance of this being caused by an aircraft is quite small.

Note that beyond the conditions relating to the event duration and trigger level, a correlation with a registered aircraft movement is also necessary based on its radar track results.

In the table below, a comparison is made between the values simulated with Echo at the different measuring station locations and the values measured/calculated on the basis of the correlated events for the chosen parameters. Aside from data from the measuring stations of Brussels Airport Company, results from the Environment, Nature and Energy Department (LNE) measuring stations (with codes NMT 40-2 and higher) are also recorded. The measurement data from these measuring stations are input and linked to flight data in the NMS of the airport.

For the measurement stations of the OIM in the Brussels-Capital Region, the above procedure is not possible because the measurement data are not provided to BAC (until 2009 the measurement data of the OIM for two measuring stations — Haren and Evere — were provided). An overview of the location of all measuring stations is given in Appendix B.

The measuring stations NMT01-2, NMT03-3, NMT15-3, NMT23-1 and NMT27-1 are located on the airport site and/or in the immediate vicinity of the runway system and airport installations. The flight-correlated noise events comprise contributions from ground noise as well as overflights. The link to specific flight movements is not always equally reliable for these measuring stations. For these reasons, the measured values at these measuring stations are less relevant for assessing noise emission from aircraft flying overhead, and while they are reported, they are not considered in the assessment of the accuracy of the simulations.

The fraction of time the metering system was active (so-called 'uptime') was slightly higher in 2025 than in 2024. The average uptime for the BAC measurement units was 99.2%, the measurement stations of the Department of Environment were active 99.9% of the time. This results in an overall average of 99.4%. The site with the lowest uptime is location 06-01 (95.6%). Nevertheless, this value remains very high. Elsewhere, location 48-03 (Berthem) was discontinued in 2025 and is not included in this report as a result.

For the comparison of the measurements with the calculations (for a whole year), a correction is made per measuring stations for the uptime fraction. It is also assumed that during the periods lacking measurements, there was the same proportion of exposure to aircraft noise as during the periods in which the measuring station was active. The correction is, as a consequence of the high uptime, virtually negligible.

The comparison between calculations and measurements based on the $L_{Aeq,24h}$ shows that the discrepancy between the calculated values and the measured values across all measuring stations, except NMT20-03 (Machelen) and NMT42-2 (Diegem), is smaller than 2 dB(A) (after also excluding the measuring points NMT01-2, NMT03-3, NMT15-3 and NMT23-1 and NMT27-1 as discussed above). At seven measuring stations, the deviation is limited to up to 0.5 dB(A). At 15 measuring stations, the measurements are higher than the calculations, at 12 measuring stations the measurements are lower than the calculations (in each case with the abovementioned exclusions). The global discrepancy between simulations and measurements

is 1.3 dB(A) (root-mean-square error or RMSE), if NMT01-2, NMT03-3, NMT15-3, NMT23-1 and NMT27-1 are excluded from this evaluation.

Globally, equivalent limited deviations between measurements and simulations are obtained for L_{night} (2.3 dB (A) RMSE, excluding measuring stations NMT01-2, NMT03-3, NMT15-3, NMT23-1 and NMT27-1). At seven measuring stations, the differences are less than or equal to 0.5 dB(A).

For the noise indicator L_{den} , the RMSE is 1.6 dB(A) (excluding NMT01-2, NMT03-3, NMT15-3, NMT23-1 and NMT27-1). At most of the other measuring stations (22), the deviations were within 2 dB(A). There are seven measuring stations that give a deviation of up to 0.5 dB(A). At 15 measuring stations, the calculations result in an underestimation of the measured levels, at 11 measuring stations they lead to an overestimation (excluding NMT01-2, NMT03-3, NMT15-3, NMT23-1 and NMT27-1).

Table 3: Correspondence between calculations and measurements for noise indicator LAeq,24h (in dB(A)). For the grey rows in the table, comparison between measurements and calculations is not relevant (see text).

| Location code | Location name | Measurements 2025 (dB(A)) | Calculations 2025 (dB(A)) | Difference (dB(A)) |
|---------------|---------------------|---------------------------------|------------------------------|-----------------------|
| NMT01-02 | STEENOKKERZEEL | 58.8 | 63.3 | -4.5 |
| NMT02-02 | KORTENBERG | 65.9 | 66.5 | -0.6 |
| NMT03-03 | HUMMELGEM | 61.8 | 62.6 | -0.9 |
| NMT04-01 | NOSSEGEM | 62.2 | 62.6 | -0.4 |
| NMT06-01 | EVERE | 50.0 | 49.2 | 0.8 |
| NMT07-02 | STERREBEEK | 49.2 | 48.6 | 0.6 |
| NMT08-01 | KAMPENHOUT | 57.1 | 55.5 | 1.6 |
| NMT09-02 | PERK | 46.8 | 48.8 | -2.0 |
| NMT10-03 | NEDER-OVER-HEEMBEEK | 53.5 | 52.5 | 1.0 |
| NMT11-02 | SINT-PIETERS-WOLUWE | 52.0 | 51.7 | 0.2 |
| NMT12-01 | DUISBURG | 45.9 | 45.4 | 0.5 |
| NMT13-02 | GRIMBERGEN | 42.9 | 44.1 | -1.2 |
| NMT14-01 | WEMMEL | 47.0 | 46.4 | 0.6 |
| NMT15-03 | ZAVENTEM | 45.7 | 54.1 | -8.4 |
| NMT16-02 | VELTEM | 55.6 | 55.7 | -0.2 |
| NMT19-04 | VILVOORDE | 50.7 | 50.5 | 0.1 |
| NMT20-03 | MACHELEN | 49.8 | 52.1 | -2.4 |
| NMT21-01 | STROOMBEEK-BEVER | 51.3 | 49.5 | 1.8 |
| NMT23-01 | STEENOKKERZEEL | 65.2 | 66.5 | -1.4 |
| NMT24-01 | KRAAINEM | 53.2 | 52.5 | 0.7 |
| NMT26-03 | SCHAARBEEK | 49.0 | 49.8 | -0.8 |
| NMT27-01 | MIL | 65.8 | 67.8 | -1.9 |
| NMT40-02 | KONINGSLO | 51.6 | 51.1 | 0.0 |
| NMT41-01 | GRIMBERGEN | 45.0 | 45.9 | -0.9 |
| NMT42-02 | DIEGEM | 63.1 | 60.5 | 2.6 |
| NMT43-02 | ERPS-KWERPS | 55.4 | 56.5 | -1.1 |
| NMT44-02 | TERVUREN | 46.4 | 46.1 | 0.3 |
| NMT45-01 | MEISE | 42.6 | 43.5 | -0.9 |
| NMT46-02 | WEZEMBEEK-OPPEM | 54.8 | 54.2 | 0.6 |
| NMT47-03 | STERREBEEK | 50.6 | 49.3 | 1.2 |
| NMT70-01 | ROTSELAAR | 49.5 | 49.5 | 0.0 |

Table 4: Correspondence between calculations and measurements for Lnight sound indicator (in dB(A)). For the grey rows in the table, comparison between measurements and calculations is not relevant (see text).

| Location code | Location name | Measurements 2025 (dB(A)) | Calculations 2025 (dB(A)) | Difference (dB(A)) |
|---------------|---------------------|---------------------------------|------------------------------|-----------------------|
| NMT01-02 | STEENOKKERZEEL | 55.7 | 62.0 | -6.2 |
| NMT02-02 | KORTENBERG | 61.7 | 62.3 | -0.6 |
| NMT03-03 | HUMMELGEM | 57.0 | 55.8 | 1.2 |
| NMT04-01 | NOSSEGEM | 60.1 | 59.9 | 0.2 |
| NMT06-01 | EVERE | 43.4 | 43.2 | 0.2 |
| NMT07-02 | STERREBEEK | 49.6 | 48.4 | 1.2 |
| NMT08-01 | KAMPENHOUT | 53.2 | 53.9 | -0.7 |
| NMT09-02 | PERK | 43.2 | 46.3 | -3.1 |
| NMT10-03 | NEDER-OVER-HEEMBEEK | 50.3 | 48.8 | 1.5 |
| NMT11-02 | SINT-PIETERS-WOLUWE | 48.0 | 47.9 | 0.1 |
| NMT12-01 | DUISBURG | 43.8 | 42.8 | 1.1 |
| NMT13-02 | GRIMBERGEN | 37.1 | 39.3 | -2.2 |
| NMT14-01 | WEMMEL | 43.5 | 42.9 | 0.7 |
| NMT15-03 | ZAVENTEM | 46.6 | 51.8 | -5.2 |
| NMT16-02 | VELTEM | 51.7 | 51.8 | -0.1 |
| NMT19-04 | VILVOORDE | 47.7 | 47.3 | 0.4 |
| NMT20-03 | MACHELEN | 47.2 | 49.2 | -2.0 |
| NMT21-01 | STROOMBEEK-BEVER | 48.6 | 46.0 | 2.6 |
| NMT23-01 | STEENOKKERZEEL | 63.5 | 65.1 | -1.6 |
| NMT24-01 | KRAAINEM | 48.6 | 48.5 | 0.1 |
| NMT26-03 | SCHAARBEEK | 43.5 | 44.9 | -1.3 |
| NMT27-01 | MIL | 63.1 | 63.9 | -0.7 |
| NMT40-02 | KONINGSLO | 48.4 | 47.4 | 1.0 |
| NMT41-01 | GRIMBERGEN | 42.2 | 42.7 | -0.5 |
| NMT42-02 | DIEGEM | 58.8 | 55.8 | 3.0 |
| NMT43-02 | ERPS-KWERPS | 50.2 | 51.9 | -1.7 |
| NMT44-02 | TERVUREN | 46.4 | 44.8 | 1.6 |
| NMT45-01 | MEISE | 37.7 | 39.8 | -2.1 |
| NMT46-02 | WEZEMBEEK-OPPEM | 50.7 | 50.4 | 0.2 |
| NMT47-03 | STERREBEEK | 51.1 | 49.0 | 2.1 |
| NMT70-01 | ROTSELAAR | 45.5 | 45.6 | -0.1 |

Table 5: Correspondence between calculations and measurements for Lden sound indicator (in dB(A)). For the grey rows in the table, comparison between measurements and calculations is not relevant (see text).

| Location code | Location name | Measurements 2025 (dB(A)) | Calculations 2025 (dB(A)) | Difference (dB(A)) |
|---------------|---------------------|---------------------------------|------------------------------|-----------------------|
| NMT01-02 | STEENOKKERZEEL | 63.3 | 68.8 | -5.5 |
| NMT02-02 | KORTENBERG | 69.9 | 70.5 | -0.6 |
| NMT03-03 | HUMMELGEM | 65.4 | 65.7 | -0.3 |
| NMT04-01 | NOSSEGEM | 67.3 | 67.5 | -0.1 |
| NMT06-01 | EVERE | 53.2 | 52.7 | 0.6 |
| NMT07-02 | STERREBEEK | 55.7 | 54.7 | 1.0 |
| NMT08-01 | KAMPENHOUT | 61.1 | 61.0 | 0.1 |
| NMT09-02 | PERK | 50.9 | 53.6 | -2.7 |
| NMT10-03 | NEDER-OVER-HEEMBEEK | 57.9 | 56.7 | 1.2 |
| NMT11-02 | SINT-PIETERS-WOLUWE | 56.3 | 56.1 | 0.2 |
| NMT12-01 | DUISBURG | 50.9 | 50.2 | 0.7 |
| NMT13-02 | GRIMBERGEN | 46.5 | 48.0 | -1.6 |
| NMT14-01 | WEMMEL | 51.2 | 50.7 | 0.6 |
| NMT15-03 | ZAVENTEM | 52.6 | 58.9 | -6.3 |
| NMT16-02 | VELTEM | 59.7 | 59.9 | -0.2 |
| NMT19-04 | VILVOORDE | 55.5 | 55.1 | 0.3 |
| NMT20-03 | MACHELEN | 54.8 | 56.8 | -2.1 |
| NMT21-01 | STROOMBEEK-BEVER | 56.0 | 53.8 | 2.2 |
| NMT23-01 | STEENOKKERZEEL | 70.6 | 72.1 | -1.5 |
| NMT24-01 | KRAAINEM | 57.2 | 56.7 | 0.5 |
| NMT26-03 | SCHAARBEEK | 52.5 | 53.4 | -1.0 |
| NMT27-01 | MIL | 70.6 | 72.0 | -1.4 |
| NMT40-02 | KONINGSLO | 56.0 | 55.3 | 0.7 |
| NMT41-01 | GRIMBERGEN | 49.6 | 50.4 | -0.7 |
| NMT42-02 | DIEGEM | 67.1 | 64.4 | 2.7 |
| NMT43-02 | ERPS-KWERPS | 59.0 | 60.4 | -1.4 |
| NMT44-02 | TERVUREN | 52.7 | 51.6 | 1.0 |
| NMT45-01 | MEISE | 46.3 | 47.7 | 0.0 |
| NMT46-02 | WEZEMBEEK-OPPEM | 59.0 | 58.6 | 0.4 |
| NMT47-03 | STERREBEEK | 57.2 | 55.4 | 1.8 |
| NMT70-01 | ROTSELAAR | 53.6 | 53.6 | 0.0 |

4.3 Noise contours

This section shows the results of the noise contour calculations for the parameters described above (L_{day} , L_{evening} , L_{night} , L_{den} , freq.70,day , freq.70,evening , freq.70,night , freq.60,day , freq.60,evening and freq.60,night). These illustrations display the results for the years 2025, 2024 and 2019. In the contour report for 2019, the contours were still calculated using INM 7.0b. To enable results to be compared, the contours of 2019 were re-modelled using the Echo calculation model (as used for contours from 2021). As described earlier, counts of the number of residents are conducted using the most recent population data as of 1 January 2026. To quantify the effect of population evolution, counts are also conducted using population data as at 1 January 2025. To aid legibility of the figures, two contour values are visualised for each figure. Appendix D displays the visualisation of all contour values for the years 2025 and 2024.

The surface area and the number of residents is calculated for each noise contour. Additionally, the number of people who are potentially seriously and severely annoyed (based on L_{den} contours) and people experiencing severe sleep disturbance (based on L_{night} contours) was calculated according to the method described in paragraph 2.2. The appendices offer more details per municipality (appendix C). Appendix D shows the visualisation of the contours. The evolution of the area and inhabitants per contour over several years is shown in Appendix E.

4.3.1 L_{day} contours

The L_{day} contours give the A-weighted equivalent sound pressure level over the period 07:00 to 19:00 and are reported from 55 dB(A) to 75 dB(A) in steps of 5 dB(A). The evolution of the contours for 2019, 2024 and 2025 is shown in Figure 13, where only the 55 dB(A) and 60 dB(A) contours are presented.

The evaluation period for the L_{day} contours falls entirely within the operational day period (06:00 to 23:00) as determined at Brussels Airport. This means that the 'Departure 25R – Landing 25L/25R' runway schedule is to be preferred at all times, except at the weekend on Saturdays after 16:00 and on Sundays before 16:00, when departures are to be distributed over 25R and 19. When this preferential runway usage cannot be applied due to weather conditions (as is often the case with easterly winds), the combination of departing at 07R and/or 07L and landing at 01, 07L or 07R is generally applied.

There are a number of relevant findings. In the first place, there was an increase in the number of landings (+2.2%) and departures (+4.3%) during the day. This explains the local increases in contours in 2025 compared to 2024. This increase in daytime movements is divided into an increase in light aircraft types (+2.0%) and an increase in heavy aircraft types (+10.7%).

There are also evolutions in the use of runways, with the number of daytime landings increasing on almost all runways, except runway 25L, on which the number of landings decreased. This decrease on runway 25L is largely down to the planned maintenance on this

runway which took place between 12 July 2025 and 27 August 2025. During this period, landing aircraft were mainly moved toward runway 25R, resulting in an increase there. This increase was also magnified by a higher number of departures from runway 07L.

The largest relative increase is seen on runway 07R, where the number of landings has increased from 46 in 2024 to 531 in 2025. The largest relative increase in landings on runways with over 1,000 movements was seen on runway 07L. The number of landings on this runway increased from 2,731 in 2024 to 4,842 in 2025. Partly because of the increased number of departures from 07L (up from 889 to 2,397), the size of the contour in line with this runway east of the airport has expanded. The number of landings from the south towards runway 01 increased significantly by 48.6%, expanding the noise contour south of the airport.

During the day between 07:00 and 19:00, 25R remains the most commonly used runway. Even so, the number of departures from this runway decreased by -8.3% from 53,979 in 2024 to 49,501 in 2025. This explains the general slight decrease in noise levels west of the airport. As a consequence of the implementation of the RNP approach procedure for landings on 07L in 2025, there is a slight visible increase in noise levels in line with this runway to the west of the airport.

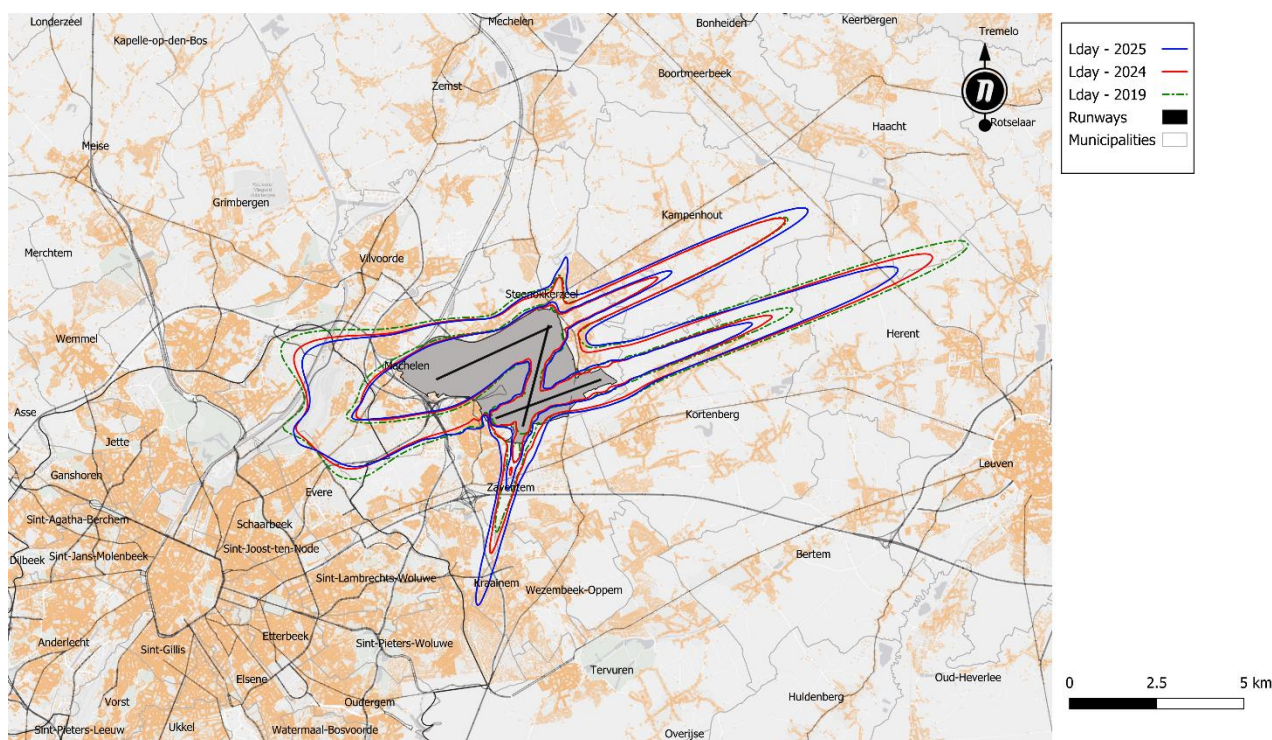


Figure 13: L_{day} noise contours of 55 and 60 dB(A) around Brussels Airport in 2019 (green), 2024 (red) and 2025 (blue).

The total area within the L_{day} contour of 55 dB(A) in 2025 is 5.6% larger than 2024 (from 4.400 to 4.648 hectares). The number of residents inside the L_{day} contour of the 55 dB(A) noise contour rose by 14.3% (from 33,047 to 37,775). The number of residents within the contour has increased by 533 (+1.4%) due to changes in population numbers. Compared to the year 2019,

the total area is 4.9% smaller (4.886 ha in 2019) and the population 7.9% higher (35,003 in 2019), based on the population register of 1 January 2022).

4.3.2 Evening contours

The L_{evening} contours give the A-weighted equivalent sound pressure level over the period 19:00 to 23:00 and are reported from 50 dB(A) to 75 dB(A) in steps of 5 dB(A). The evolution of the contours for 2019, 2024 and 2025 is shown in Figure 14, with only the 50 dB(A) and 55 dB(A) contour presented. As a lower level is reported compared to L_{day} , there is a visual magnifying effect. Given the 5 dB(A) correction for the calculation of L_{den} , the 50 dB(A) contour becomes as significant as the L_{day} contour of 55 dB(A). The evaluation period for the L_{evening} contours falls entirely within the operational daytime period (06:00 to 23:00) as determined at Brussels Airport.

There are a number of relevant findings, which differ from the daytime period findings. Firstly, there was only an increase in the number of landings during the evening (+4.3%); the number of departures decreased slightly by 0.6%. In the evening, only the number of movements involving lighter aircraft increased (+2.8%), whereas the number of movements involving heavy aircraft dropped (-6.9%).

The use of runway 25L for evening arrivals has also decreased (-18.9%). The cause for this is the same as for the day period: the scheduled maintenance of the runway. Unlike this runway, there is a visible rise in the number of arrivals on all other runways. The number of arrivals in the evening on runway 07L increased from 418 in 2024 to 885 in 2025. The number of departures increased on each runway except runways 25R, where the number of departures decreased by -11.1% (18,064 in 2024 to 16,061 in 2025). The number of landings from the south toward runway 01 and the number of departures from runway 01 toward the north have increased from 2,214 to 3,184 and from 79 to 399 respectively. The noise contour to the south and north of the airport has expanded as a result. During the evening too, the effect of the application of the RNP approach procedure for 07L is visible. This has resulted in a shift in noise levels to the west of the airport.

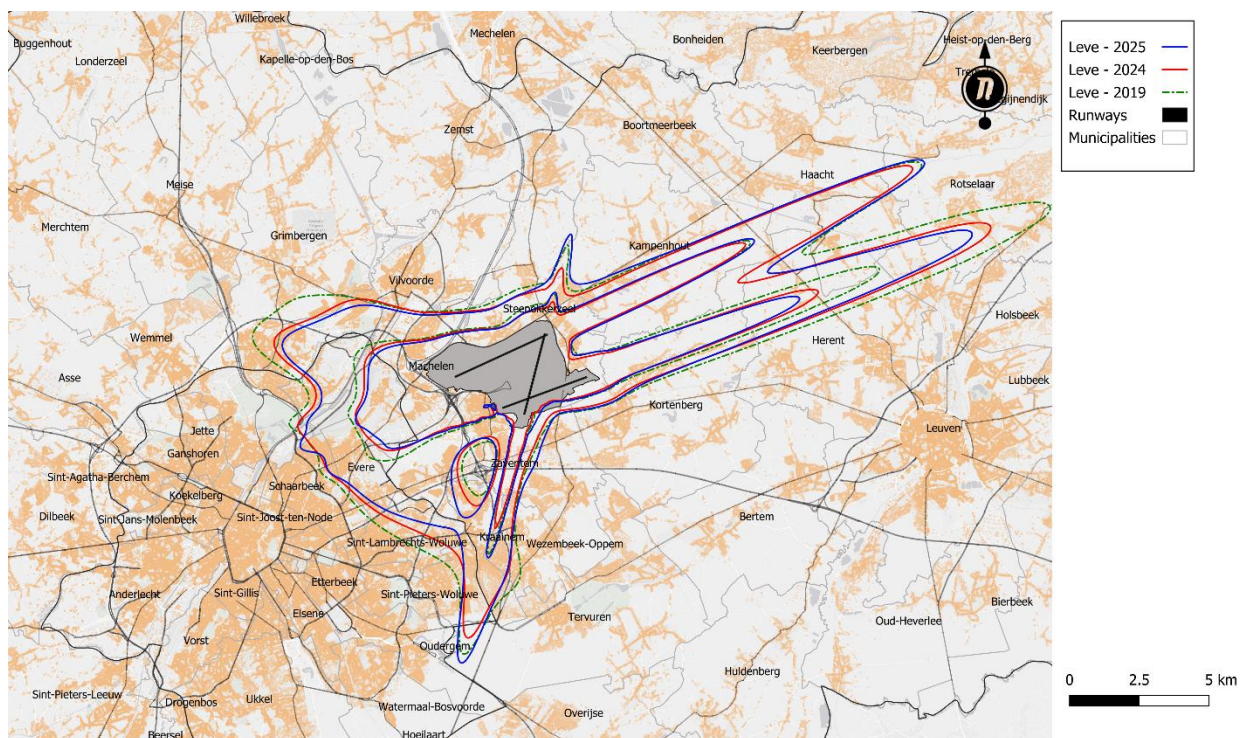


Figure 14: L_{evening} noise contours of 50 and 55 dB(A) around Brussels Airport in 2019 (green), 2024 (red) and 2025 (blue).

The total area within the L_{evening} contour of 50 dB(A) in 2025 is 0.2% smaller than in 2024 (from 11,703 ha to 11,682 ha). The number of residents within the L_{evening} contour of 50 dB(A) decreased by 9.4% (from 191,469 to 173,537). The number of residents within the contour has decreased by 616 (-0.4%) due to changes in population numbers. As a result, the number of residents within the contour based on the population data as at 1 January 2026 is lower than that based on the population data as at 1 January 2025. Compared to the year 2019, the total area is 16.6% smaller (14,010 ha in 2019) and the number of inhabitants is 22.8% lower (224,882 in 2019, based on the population register of 1 January 2022).

4.3.3 L_{night} contours

The L_{night} contours give the A-weighted equivalent sound pressure level over the period 23:00 to 07:00 and are reported from 40 dB(A) to 70 dB(A) in steps of 5 dB(A). The evolution of the contours for 2019, 2024 and 2025 is shown in Figure 15, with only the 40 dB(A) and 45 dB(A) contour presented. By reporting an additional contour, there is a visually magnifying effect compared to the day and evening. The 45 dB(A) L_{night} contour is larger than the 55 dB(A) contour for the daytime and, by correcting 10 dB(A) for the calculation of L_{den} , becomes as significant as the L_{day} contour of 55 dB(A) and the L_{evening} contour of 50 dB(A).

The evaluation period for the L_{night} contours does not concur with the operational nighttime period (23:00 to 06:00) but also includes the flights of the operational daytime period between 06:00 and 07:00. The noise contours are a combination of the runway and route usage during the operational night and during the operational day.

The number of landings in the evening period increased by 3.5% and the number of departures increased by 0.7%. The number of movements involving heavier aircraft increased by 1.9% and the number of movements involving lighter aircraft increased by 2.2%. Just as in 2024, the A306 has makes up the largest share of departing night flights involving heavier aircraft. Even so, this share has decreased compared to 2024. That said, there have been increased in types A332, A333, B77L and B763 in 2025 for traffic departing at night compared to 2024.

During the night too, there has been a decrease in the share of landings on runway 25L. The cause for this is the same as for the day and evening period: the scheduled maintenance of the runway. The number of departures from runway 25L dropped considerably from 4,907 in 2024 to 4,030 in 2025, for example. On the other hand, the number of landings on 25R increased from 6,415 in 2024 to 6,872 in 2025. The other runways also witnessed an increase in the number of landings.

The number of departures on runway 25R in the night decreased by 11.0% in 2025. Regardless, this remains by far the most used runway for departures in the night. Elsewhere, a bulge is visible in line with runway 25R/07L to the west of the airport. This can mainly be attributed to a change in procedure, following the adoption of an RNP approach for runway 07L. This has caused aircraft approaching the runway to stay in line with the runway to a greater extent, given the fact that the RNP procedure is fully in line with the runway, while the previous VOR procedure contained a turn at the end. Combined with increased use of runway 07L over the course of 2025, this has caused a peak in noise levels.

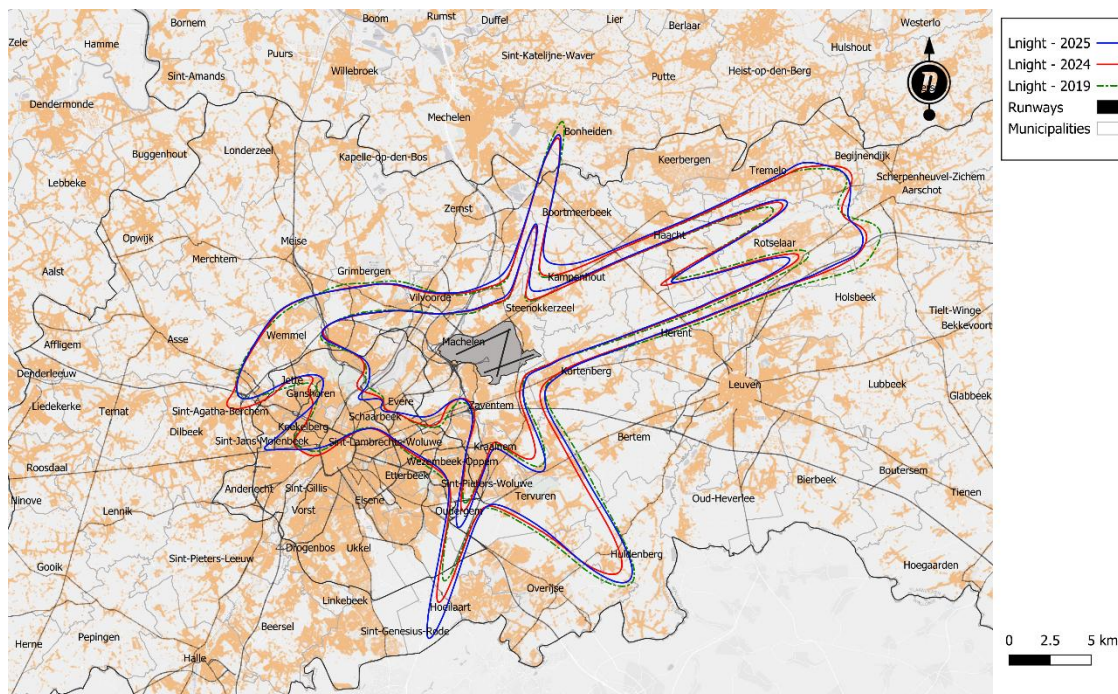


Figure 15: L_{night} noise contours of 40 and 45 dB(A) around Brussels Airport in 2019 (green), 2024 (red) and 2025 (blue).

The total area within the L_{night} contour of 40 dB(A) in 2025 is 3.5% larger than in 2024 (from 33.810 ha to 34.979). The number of residents within the L_{night} contour of 40 dB(A) increased by 2.0% (from 719,725 to 734,178). The number of residents within the contour has increased by 4,822 (+0.7%) due to changes in population numbers. Compared to the year 2019, the total area is 0.2% smaller (35.049 ha in 2019) and the population 5.4% higher (696,610 in 2019), based on the population register of 1 January 2022).

4.3.4 L_{den} contours

The L_{den} value is a composite of L_{day} , $L_{evening}$ and L_{night} , and is reported in increments of 5 dB(A) from 45 dB(A) to 75 dB(A). The evening flight movements are penalised with 5 dB(A) and the night flight movements with 10 dB(A). The evolution of the contours for 2019, 2024 and 2025 is shown in Figure 16, with only the 45 dB(A) and 50 dB(A) contour presented.

The modified form is a weighted combination of all the effects that have been dealt with in detail in the discussion of the L_{day} , $L_{evening}$ and L_{night} contours. The findings for the different periods are confirmed.

Compared to 2024, noise levels increased slightly in most places in 2025. To the west of the airport, noise levels went down in several areas due to runway 25R being used less frequently for departures. Even so, noise levels have clearly increased elsewhere to the west due to the RNP approach procedure for 07L. These effects on the L_{den} contour are also reflected in the contours for the day, evening and night.

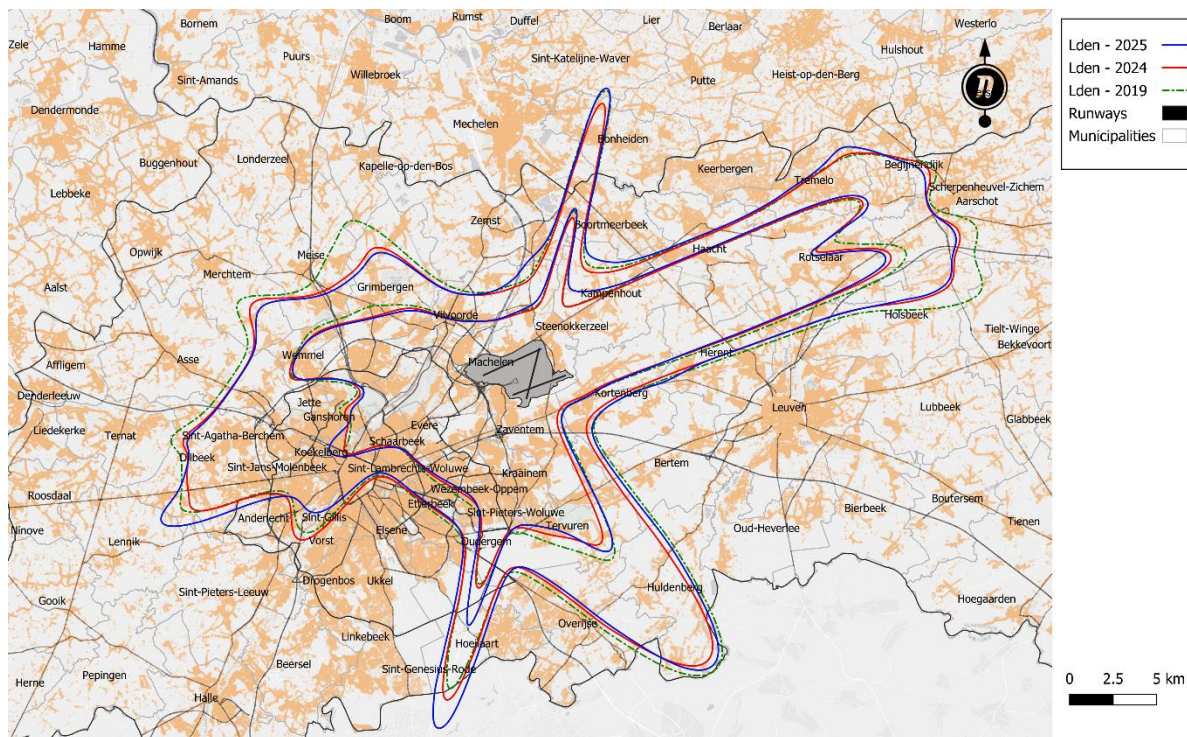


Figure 16: L_{den} noise contours of 45 and 50 dB(A) around Brussels Airport in 2019 (green), 2024 (red) and 2025 (blue).

The total surface area inside the L_{den} noise contour of 45 dB(A) increased in 2025 by 2.9% compared with 2024 (from 53,203 ha to 54,724 ha). The number of residents within the L_{den} contour of 45 dB(A) increased by 3.3% (from 1,200,242 to 1,161,066). The number of inhabitants within the contour has increased by 7,286 (+0.6%) due to changes in population numbers. Compared to the year 2019, the total area is 4.9% smaller (57.527 ha in 2019) and the population 1.0% higher (1,117,804 in 2019, based on the population register of 1 January 2022).

4.3.5 Freq.70,day contours (daytime: 07:00-19:00)

The Freq.70,day contours are calculated over an evaluation period consisting of the same evaluation period as L_{day} . Unlike in previous years, where the frequency contours were calculated for the combined day and evening periods, these figures were broken down separately last year. As such, Figure 17 shows both the 2024 and 2025 frequency contours where noise levels of 70 dB(A) or more occurred on average 5x and 10x per day during the daytime period (07:00 - 19:00).

One thing that stands out is that the frequency contour has expanded in size (5x) to the southwest of the airport. Owing to the maintenance works on runway 25L/07R, runway 19 was used more frequently for departures toward the south, and noise levels in excess of 70 dB(A) were experienced more often in this area.

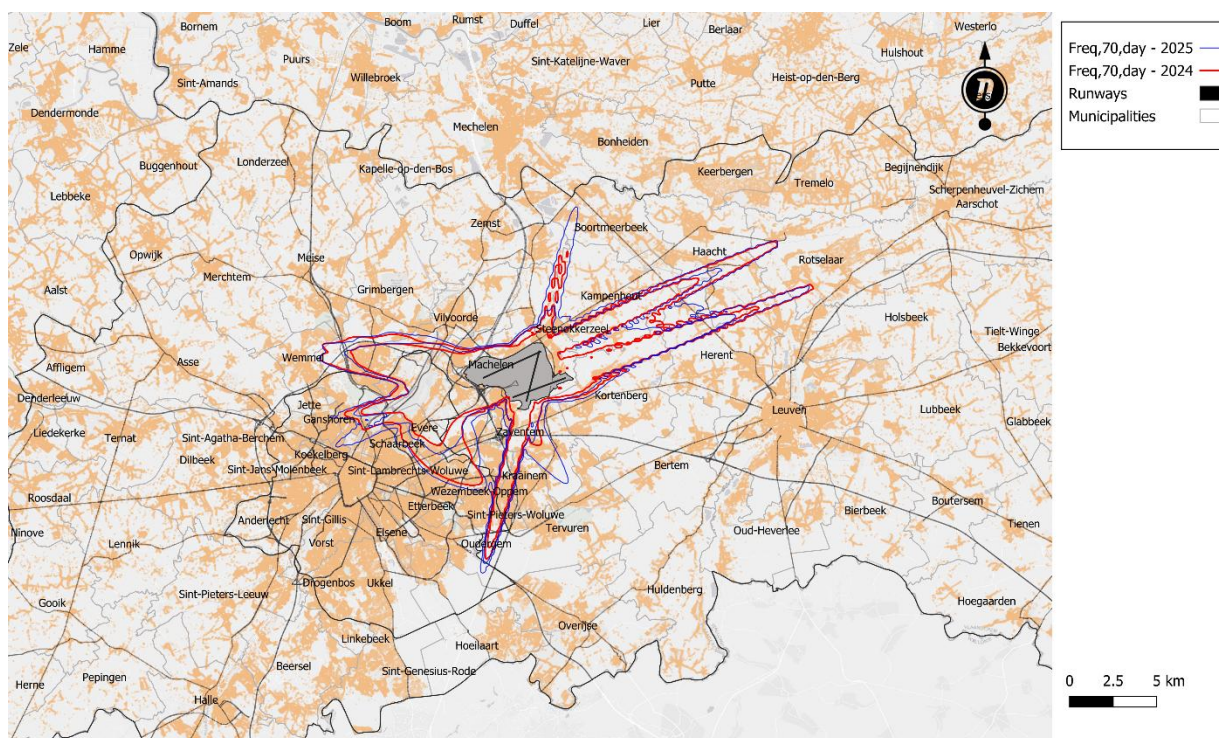


Figure 17: Freq.70,day contours (5x and 10x above 70 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue)

The total surface area within the '5x above 70 dB(A)' Freq.70.day contour in 2025 increased by 19.8% compared to 2024 (from 11,040 ha to 13,233 ha). The number of residents within this contour has risen by 35% (from 202,631 to 273,160). The number of residents within the contour has increased by 905 (+0.3%) due to changes in population numbers.

4.3.6 Freq.70,evening contours (evening: 19:00 - 23:00)

The Freq.70,evening contours are calculated over the evaluation period consisting of the same evaluation period as $L_{evening}$. Unlike in previous years, where the frequency contours were calculated for the combined day and evening periods, these figures were broken down separately last year. As such, Figure 18 shows both the 2024 and 2025 frequency contours where noise levels of 70 dB(A) or more occurred on average 1x and 5x per day during the evening period (19:00 - 23:00).

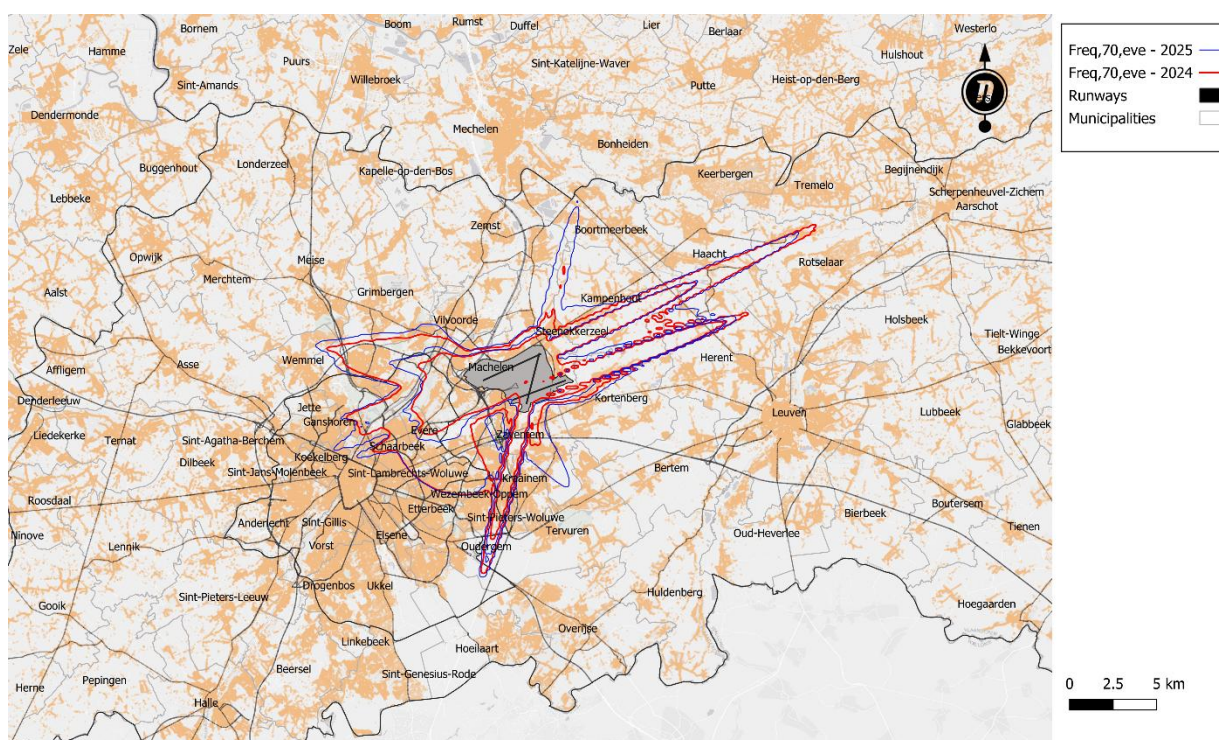


Figure 18: Freq.70,evening contours (1x and 5x above 70 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue).

The total surface area within the '1x above 70 dB(A)' Freq.70.evening contour in 2025 increased by 10.7% compared to 2024 (from 13,043 ha to 14,443 ha). The number of residents within this contour has risen by 25% (from 274,045 to 343,352). The number of residents within the contour has decreased by 1,041 (-0.3%) due to changes in population numbers. Compared to 2019, the total area is 20.6% smaller (11,973 ha in 2019) and the number of residents 43.0% lower (240,060 in 2019 based on the population register of 1 January 2022).

4.3.7 Freq.70,night contours (night: 23:00-07:00)

The Freq.70,night contours are calculated for an evaluation period that is the same as for L_{night} . The evolution of the Freq.70,night contours reflects the general changes in traffic volume, the changes in runway usage and the changes in the fleet that were discussed for L_{night} . The figure shows the contours of 2024 and 2025 where a noise level of 70 dB(A) occurred 1x and 5x per day on average during the night period (23:00 to 07:00).

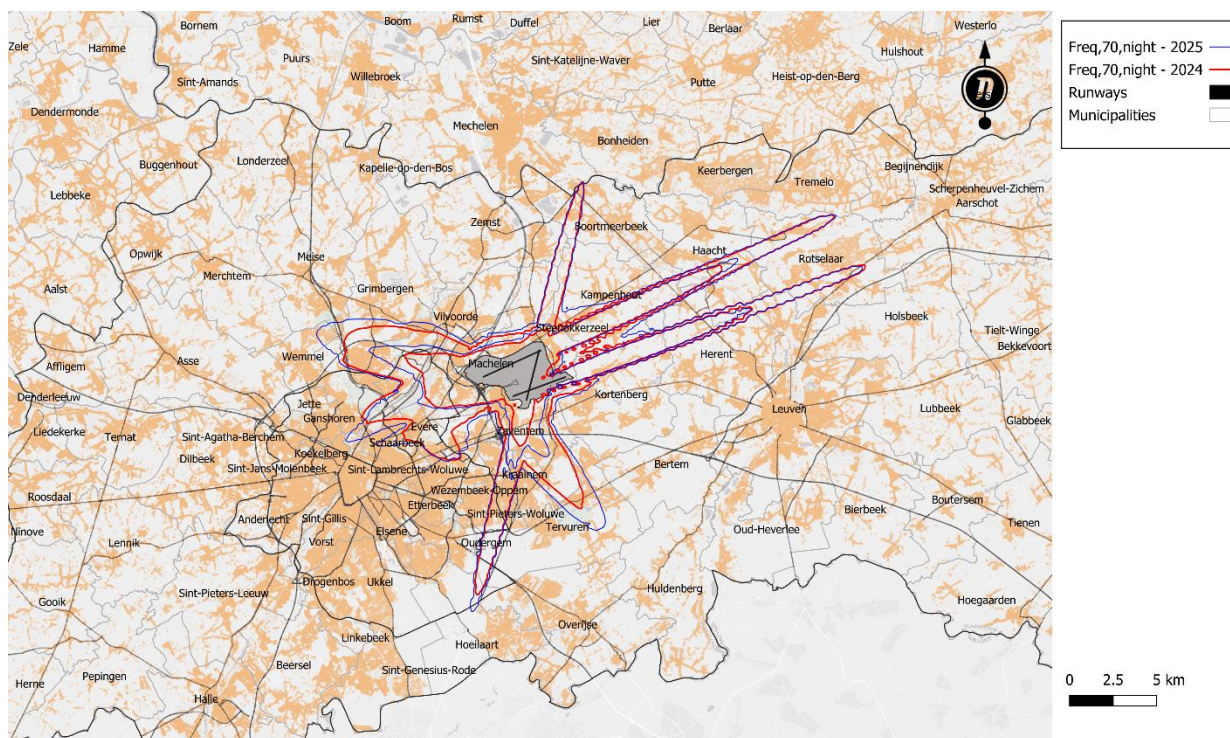


Figure 19: Freq.70,night contours (1x and 5x above 70 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue).

The total surface area within the '1x above 70 dB(A)' Freq.70,night contour in 2025 increased by 18.9% compared to 2024 (from 12,612 ha to 14,995 ha). The number of residents within this contour has risen by 36.0% (from 170,060 to 230,649). The number of residents within the contour has decreased by 2,097 (-0.9%) due to changes in population numbers. Compared to 2019, the total area is 25.8% smaller (11,920 ha in 2019) and the number of residents 62.9% lower (141,583 in 2019 based on the population register of 1 January 2022).

4.3.8 Freq.60,day contours (day: 07:00-19:00)

The Freq.60,day contours are calculated over an evaluation period consisting of the same evaluation period as L_{day} . Unlike in previous years, where the frequency contours were calculated for the combined day and evening periods, these figures were broken down separately last year. As such, Figure 20 shows both the 2024 and 2025 frequency contours where noise levels of 60 dB(A) or more occurred on average 50x and 100x per day during the daytime period (07:00 - 19:00).

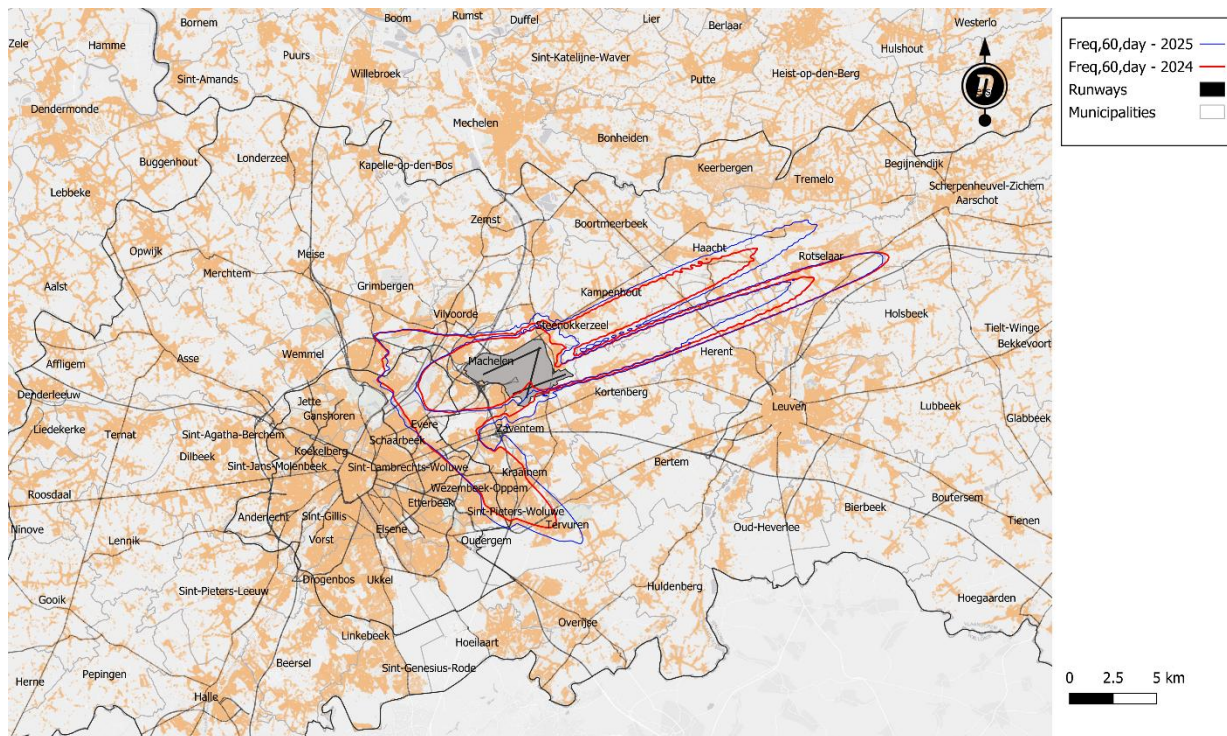


Figure 20: Freq.60,day contours (50x and 100x above 60 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue)

The total surface area within the '50x above 60 dB(A)' Freq.60.day contour in 2025 increased by 17.8% compared to 2024 (from 12,189 ha to 14,362 ha). The number of residents within this contour has risen by 14.0% (from 177,500 to 202,450). The number of inhabitants within the contour has increased by 973 (+0.5%) due to changes in population numbers.

4.3.9 Freq.60,evening contours (evening: 19:00 - 23:00)

The Freq.60,evening contours are calculated over an evaluation period consisting of the same evaluation period as L_{evening} . Unlike in previous years, where the frequency contours were calculated for the combined day and evening periods, these figures were broken down separately last year. As such, Figure 21 shows both the 2024 and 2025 frequency contours where noise levels of 60 dB(A) or more occurred on average 10x and 15x per day during the evening period (19:00 - 23:00).

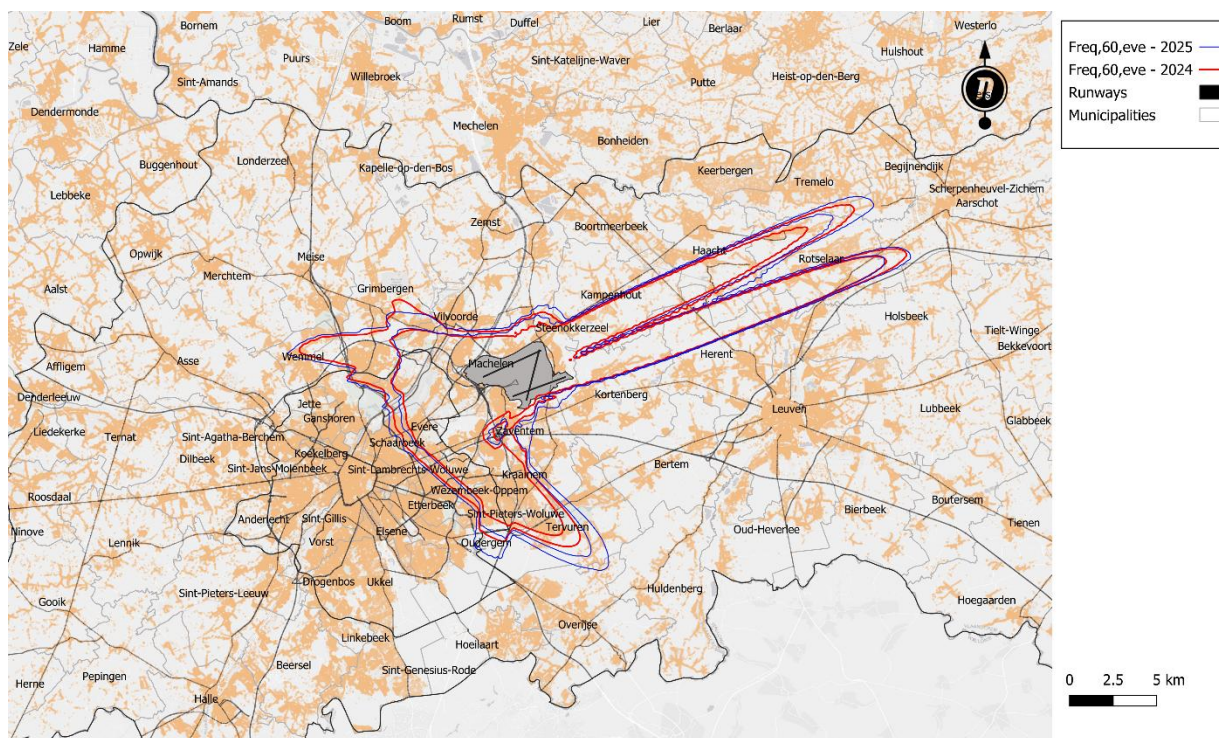


Figure 21: Freq.60,evening contours (10x and 15x above 60 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue)

The total surface area within the '10x above 60 dB(A)' Freq.60.evening contour in 2025 increased by 14.4% compared to 2024 (from 17,799 ha to 20,354 ha). The number of residents within this contour has risen by 12.0% (from 309,099 to 345,483). The number of residents within the contour has increased by 3,362 (+1.0%) due to changes in population numbers.

4.3.10 Freq.60,night contours (night: 23:00-07:00)

The Freq.60,night contours are calculated for an evaluation period that is the same as for L_{night} . The evolution of the Freq.60,night contours reflects the general changes in traffic volume, the changes in runway usage and the changes in the fleet that were discussed for L_{night} . The figure shows the contours of 2024 and 2025 where a noise level of 60 dB(A) occurred 10x and 15x per day on average during the night period (23:00 to 07:00).

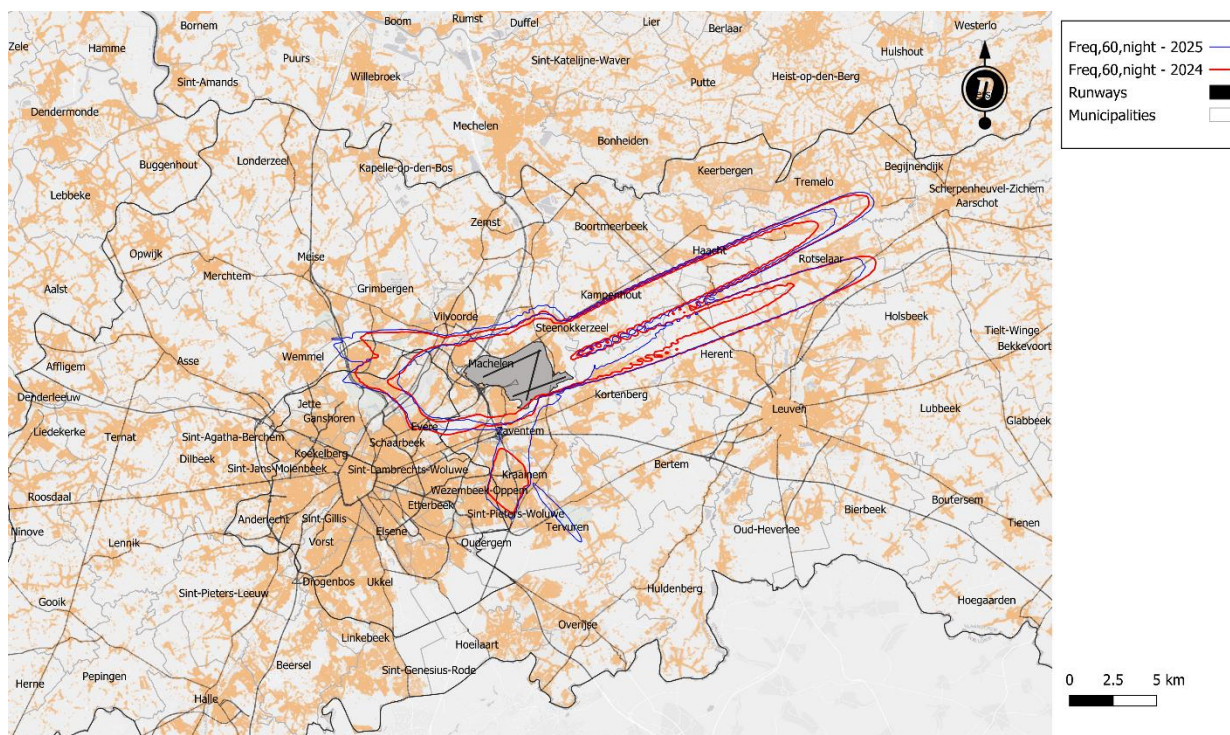


Figure 22: Freq.60,night contours (10x and 15x above 60 dB(A)) around Brussels Airport in 2024 (red) and 2025 (blue).

The total surface area within the '10x above 60 dB(A)' Freq.60,night contour in 2025 increased by 10.1% compared to 2024 (from 13,838 ha to 15,241 ha). The number of residents within this contour has risen by 12.0% (from 161,591 to 181,603). The number of residents within the contour has increased by 698 (+0.4%) due to changes in population numbers. Compared to 2019, the total area is 7.3% smaller (14,204 ha in 2019) and the number of residents 16.0% lower (156,569 in 2019 based on the population register of 1 January 2022).

4.4 Health effects

4.4.1 Number of people who are potentially seriously annoyed

The number of people who are potentially seriously annoyed within the L_{den} 55 dB(A) contour was determined on the basis of the L_{den} calculated and the exposure-effect relationship included in VLAREM II (see paragraph 2.2). The number of people who are potentially seriously annoyed is also reported per municipality. This report uses the most recent population figures (1 January 2026).

Table 6 shows the results for the number of people who are potentially seriously annoyed. The results are also shown graphically in Figure 23. Table 6 shows that the year 2019 has been modelled both with INM7.0b (official noise contours reporting 2019) and later resumed with Echo (comparability with contours from 2021).

The total number of people who are potentially seriously annoyed in 2025 within the contour of 55 dB(A) stands at 14,305, an increase of 7.4% compared to 2024. The number of people who are potentially seriously annoyed within the contour of 55 dB(A) increased by 132 (+0.9%) due to changes in population numbers in 2025.

In nine municipalities, the number of people who are potentially seriously annoyed went up compared to 2024. The biggest rises occurred in the municipalities of Zaventem (+395), Sint-Pieters-Woluwe (+175), Steenokkerzeel (+172), Kampenhout (+163) and Evere (+143). The rise in Zaventem and Sint-Pieters-Woluwe is partially caused by the increased number of departures from runway 19 and arrivals on runway 01. The rise in Steenokkerzeel is also due to increased traffic, with departures from runway 01 and arrivals on runway 19 both going up. The rise in Kampenhout can partially be explained by the increased number of departures from runway 07L. The rise in Evere can be explained by the implementation of the new RNP procedure, which required airborne traffic to fly directly along the central axis of the runway for arrivals on runway 07L. More detail on the location of this RNP procedure is provided in Section 4.1.2

In the remaining municipality, the number of people who are potentially seriously annoyed actually decreased or remained the same compared to 2024. The largest drops occurred in the municipalities of Vilvoorde (-147) and Brussels (-110). In other municipalities, the number decreased by several dozen.

The most exposed municipalities in absolute numbers are Machelen, Zaventem, Steenokkerzeel, Brussels, Evere and Kampenhout, with a total of 11,819 people potentially seriously annoyed, or 82.6% of the total number.

Table 6: Evolution of the number of people who are potentially severely annoyed within the Lden noise contour of 55 dB(A)

| Year | 2000 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 |
|-----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|--------------|---------------|---------------|---------------|---------------|
| Noise model | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | INM 7.0b | Echo | INM 7.0b | Echo | Echo | Echo | Echo | Echo |
| Method | opp | opp | opp | opp | opp | opp | opp | opp | opp | opp | opp | opp | address | address | address | address | address | address | address | address | address | address |
| Population data | 1Jan00 | 1Jan03 | 1Jan06 | 1Jan07 | 1Jan07 | 1Jan08 | 1Jan08 | 1Jan10 | 1Jan10 | 1Jan10 | 1Jan11 | 1Jan11 | 1Jan16 | 1Jan17 | 1Jan19 | 1Jan22 | 1Jan20 | 1Jan22 | 1Jan23 | 1Jan24 | 1Jan25 | 1Jan26 |
| Brussel | 2,441 | 1,254 | 1,691 | 1,447 | 1,131 | 1,115 | 1,061 | 1,080 | 928 | 1,780 | 1,739 | 1,789 | 1,803 | 1,889 | 1,898 | 1,933 | 959 | 1,151 | 1,554 | 1,830 | 2,018 | 1,908 |
| Evere | 3,648 | 2,987 | 3,566 | 3,325 | 2,903 | 2,738 | 2,599 | 2,306 | 1,142 | 2,975 | 1,443 | 1,850 | 1,505 | 1,875 | 1,754 | 1,902 | 0 | 100 | 1,237 | 1,542 | 1,645 | 1,788 |
| Grimbergen | 3,111 | 479 | 1,305 | 638 | 202 | 132 | 193 | 120 | 0 | 175 | 428 | 517 | 449 | 440 | 485 | 8 | 0 | 0 | 0 | 0 | 0 | 0 |
| Haacht | 96 | 103 | 119 | 58 | 36 | 31 | 37 | 37 | 24 | 50 | 115 | 70 | 78 | 66 | 51 | 164 | 2 | 74 | 136 | 152 | 157 | 188 |
| Herent | 186 | 88 | 140 | 162 | 119 | 115 | 123 | 134 | 107 | 152 | 111 | 161 | 133 | 136 | 136 | 183 | 3 | 88 | 144 | 156 | 160 | 145 |
| Huldenberg | 112 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Kampenhout | 529 | 747 | 727 | 582 | 453 | 483 | 461 | 399 | 430 | 469 | 648 | 566 | 457 | 563 | 439 | 632 | 329 | 481 | 635 | 659 | 570 | 733 |
| Kortenberg | 664 | 548 | 621 | 604 | 512 | 526 | 497 | 422 | 603 | 443 | 366 | 438 | 431 | 521 | 495 | 654 | 101 | 301 | 571 | 618 | 573 | 581 |
| Kraainem | 1,453 | 934 | 1,373 | 1,277 | 673 | 669 | 667 | 500 | 589 | 111 | 368 | 379 | 388 | 524 | 393 | 400 | 22 | 256 | 487 | 524 | 395 | 488 |
| Leuven | 70 | 0 | 9 | 22 | 2 | 1 | 3 | 5 | 0 | 11 | 0 | 0 | 13 | 18 | 22 | 114 | 0 | 0 | 35 | 47 | 49 | 36 |
| Machelen | 3,433 | 2,411 | 2,724 | 2,635 | 2,439 | 2,392 | 2,470 | 2,573 | 2,278 | 2,505 | 2,598 | 2,649 | 3,015 | 2,995 | 3,032 | 2,872 | 2,194 | 2,242 | 2,557 | 2,825 | 2,895 | 2,874 |
| Meise | 506 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Overijse | 70 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Rotelaar | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 78 | 0 | 0 | 0 | 2 | 3 | 0 |
| Schaarbeek | 2,026 | 995 | 1,937 | 1,440 | 603 | 1,153 | 1,652 | 1,703 | 76 | 1,647 | 354 | 956 | 6 | 165 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Sint-L.-Woluwe | 1,515 | 382 | 1,218 | 994 | 489 | 290 | 196 | 150 | 0 | 0 | 0 | 1 | 142 | 44 | 241 | 16 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sint-P.-Woluwe | 642 | 411 | 798 | 607 | 396 | 477 | 270 | 82 | 390 | 0 | 79 | 102 | 90 | 338 | 85 | 78 | 0 | 7 | 284 | 356 | 71 | 246 |
| Steenokkerzeel | 1,769 | 1,530 | 1,584 | 1,471 | 1,327 | 1,351 | 1,360 | 1,409 | 1,455 | 1,439 | 1,675 | 1,525 | 1,506 | 1,595 | 1,545 | 1,583 | 1,388 | 1,298 | 1,587 | 1,725 | 1,667 | 1,839 |
| Tervuren | 1,550 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Vilvoorde | 2,622 | 1,158 | 1,483 | 1,177 | 894 | 812 | 868 | 851 | 302 | 1,012 | 1,120 | 1,136 | 1,146 | 1,103 | 1,129 | 879 | 139 | 7 | 76 | 352 | 527 | 380 |
| Wemmel | 142 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wezembeek-O. | 1,818 | 739 | 878 | 670 | 359 | 425 | 408 | 399 | 457 | 172 | 282 | 252 | 268 | 360 | 250 | 302 | 35 | 226 | 401 | 419 | 311 | 420 |
| Zaventem | 5,478 | 3,490 | 3,558 | 3,628 | 2,411 | 2,152 | 2,544 | 2,716 | 2,618 | 1,884 | 2,638 | 1,835 | 2,144 | 2,315 | 2,464 | 2,670 | 1,582 | 1,485 | 2,039 | 2,225 | 2,282 | 2,677 |
| Zemst | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| Total | 33,889 | 18,257 | 23,732 | 20,737 | 14,950 | 14,861 | 15,409 | 14,886 | 11,399 | 14,825 | 13,965 | 14,226 | 13,575 | 14,948 | 14,420 | 14,469 | 6,756 | 7,716 | 11,744 | 13,432 | 13,323 | 14,305 |

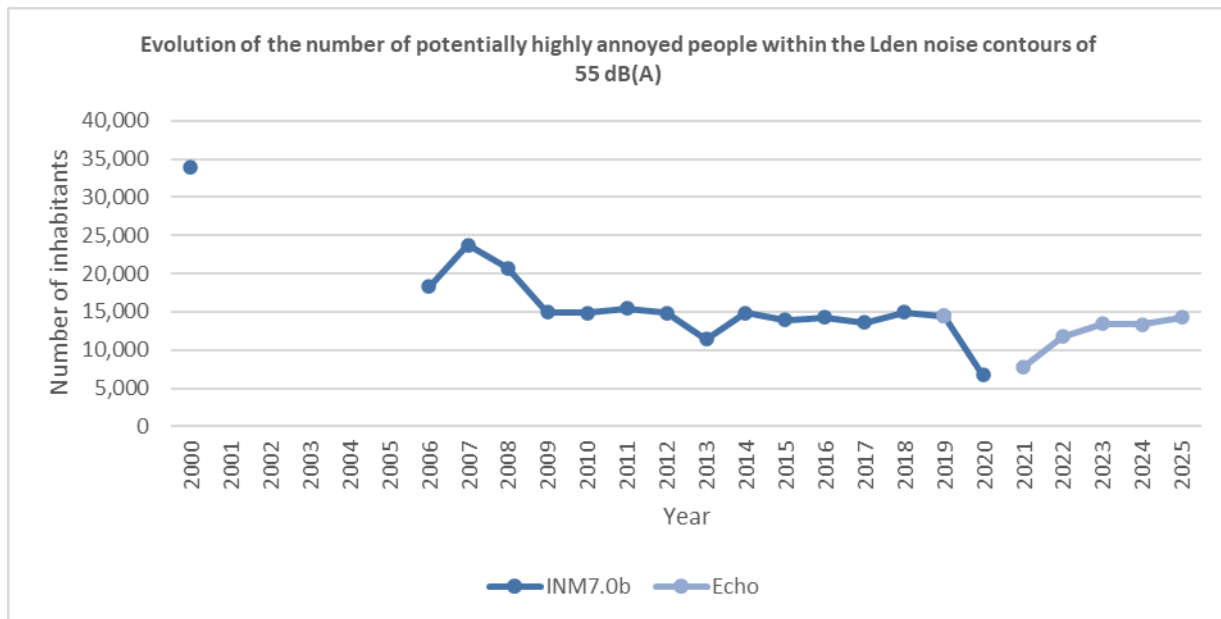


Figure 23: Evolution of the number of people who are potentially severely annoyed within the Lden noise contour of 55 dB(A)

4.4.2 Number of people who are severely annoyed

The number of people who are severely annoyed within the L_{den} contour of 45 dB(A) was determined based on the L_{den} calculated and the exposure-effect relationship for severe inconvenience specified by the WHO (see paragraph 2.2). The number of people who are severely annoyed is also reported by municipality. This paragraph uses population data as of 1 January 2022 in accordance with the requirements included in the special conditions of the environmental permit. The counts based on the most recent population data are available in Appendix C.3.

Table 7: Evolution of the number of people who are severely annoyed within the Lden noise contour of 45 dB(A)

| Year | 2019 | 2024 | 2025 |
|------------------------|----------------|----------------|----------------|
| Noise model | Echo | Echo | Echo |
| Method | address | address | adress |
| Population data | 1jan'22 | 1jan'22 | 1jan'22 |
| Aarschot | 832 | 538 | 499 |
| Anderlecht | 9,420 | 10,263 | 8,761 |
| Asse | 1,925 | 1,844 | 1,814 |
| Begijnendijk | 653 | 667 | 685 |
| Bertem | 33 | 10 | 27 |
| Bonheiden | 413 | 301 | 385 |
| Boortmeerbeek | 593 | 520 | 602 |
| Brussel | 29,164 | 29,500 | 27,682 |
| Dilbeek | 4,056 | 3,819 | 4,432 |
| Etterbeek | 757 | 570 | 446 |
| Evere | 11,296 | 11,037 | 10,902 |
| Ganshoren | 3,471 | 3,338 | 3,254 |
| Graven | 1 | 0 | 0 |
| Grimbergen | 7,262 | 6,704 | 6,524 |
| Haacht | 1,746 | 1,703 | 1,813 |
| Herent | 1,330 | 1,106 | 1,129 |
| Hoeilaart | 29 | 32 | 75 |
| Holsbeek | 369 | 259 | 239 |
| Huldenberg | 1,011 | 822 | 921 |
| Jette | 8,173 | 7,901 | 7,798 |
| Kampenhout | 2,739 | 2,665 | 2,951 |
| Kapelle-op-den-Bos | 19 | 0 | 0 |
| Koekelberg | 3,049 | 3,122 | 3,481 |
| Kortenberg | 3,286 | 2,981 | 3,178 |
| Kraainem | 3,468 | 3,400 | 3,446 |
| Leuven | 1,376 | 1,159 | 1,128 |
| Machelen | 5,877 | 5,787 | 5,734 |
| Mechelen | 89 | 78 | 87 |
| Meise | 1,396 | 890 | 802 |
| Merchtem | 293 | 222 | 149 |
| Oudergem | 152 | 83 | 151 |
| Overijse | 758 | 544 | 456 |
| Rotselaar | 3,705 | 3,536 | 3,484 |
| Schaarbeek | 24,094 | 24,040 | 24,501 |
| Sint-Agatha-Berchem | 2,855 | 2,892 | 3,018 |
| Sint-Gillis | 937 | 1,427 | 208 |
| Sint-Jans-Molenbeek | 14,260 | 14,352 | 15,807 |
| Sint-Joost-ten-Node | 3,210 | 3,304 | 3,014 |
| Sint-Katelijne-Waver | 3 | 0 | 4 |
| Sint-Lambrechts-Woluwe | 11,679 | 11,028 | 10,612 |
| Sint-Pieters-Woluwe | 6,732 | 6,291 | 6,220 |
| Steenokkerzeel | 3,843 | 3,865 | 4,059 |
| Ternat | 1 | 0 | 0 |
| Tervuren | 4,136 | 3,843 | 3,949 |
| Tielt-Winge | 4 | 0 | 0 |
| Tremelo | 956 | 964 | 1,106 |
| Vilvoorde | 8,806 | 8,483 | 8,383 |
| Vorst | 779 | 1,278 | 0 |
| Waver | 1 | 0 | 0 |
| Wemmel | 3,156 | 3,115 | 3,090 |
| Wezembeek-Oppem | 3,371 | 3,306 | 3,419 |
| Zaventem | 10,070 | 9,653 | 9,906 |
| Zemst | 109 | 80 | 192 |
| Total | 207,741 | 203,322 | 200,543 |

4.4.3 Number of people who experience severe sleep disturbance

The number of people who experience severe sleep disturbance within the L_{night} noise contour of 40 dB(A) was determined based on the L_{night} calculated and the exposure-effect relationship for people who experience severe sleep disturbance specified by the WHO (see paragraph 2.2). The number of people who experience severe sleep disturbance is also reported by municipality. This uses population data as of 1 January 2022. The counts based on the most recent population data are available in Appendix C.3.

Table 8: Evolution of the number of people who experience severe sleep disturbance within the Lnight noise contour of 40 dB(A)

| Year | 2019 | 2024 | 2025 |
|------------------------|---------------|---------------|----------------|
| Noise model | Echo | Echo | Echo |
| Method | address | address | adress |
| Population data | 1jan'22 | 1jan'22 | 1jan'22 |
| Aarschot | 240 | 192 | 184 |
| Anderlecht | 78 | 351 | 575 |
| Asse | 1,203 | 1,252 | 1,141 |
| Begijnendijk | 296 | 365 | 343 |
| Bertem | 5 | 0 | 0 |
| Bonheiden | 152 | 1 | 11 |
| Boortmeerbeek | 399 | 384 | 390 |
| Brussel | 16,309 | 17,041 | 15,628 |
| Dilbeek | 1 | 193 | 0 |
| Evere | 6,676 | 6,678 | 6,607 |
| Ganshoren | 0 | 0 | 25 |
| Grimbergen | 3,958 | 3,791 | 3,790 |
| Haacht | 1,042 | 1,048 | 1,111 |
| Herent | 628 | 531 | 506 |
| Hoelaart | 2 | 7 | 19 |
| Holsbeek | 39 | 2 | 1 |
| Huldenberg | 373 | 277 | 355 |
| Jette | 2,971 | 3,782 | 2,404 |
| Kampenhout | 1,659 | 1,675 | 1,864 |
| Koekelberg | 1,236 | 1,308 | 1,856 |
| Kortenberg | 1,664 | 1,473 | 2,154 |
| Kraainem | 2,119 | 2,120 | 2,154 |
| Leuven | 672 | 505 | 452 |
| Machelen | 3,508 | 3,513 | 3,500 |
| Mechelen | 58 | 48 | 52 |
| Meise | 150 | 148 | 150 |
| Overijse | 141 | 118 | 118 |
| Rotselaar | 2,462 | 2,388 | 2,350 |
| Schaarbeek | 12,714 | 13,047 | 13,058 |
| Sint-Jans-Molenbeek | 6,905 | 7,039 | 10,538 |
| Sint-Joost-ten-Node | 478 | 593 | 547 |
| Sint-Lambrechts-Woluwe | 5,615 | 5,127 | 4,579 |
| Sint-Pieters-Woluwe | 2,904 | 2,660 | 2,652 |
| Steenokkerzeel | 2,377 | 2,482 | 2,568 |
| Tervuren | 2,936 | 2,492 | 2,707 |
| Tremelo | 448 | 459 | 543 |
| Vilvoorde | 5,403 | 5,118 | 5,226 |
| Wemmel | 2,169 | 2,189 | 2,205 |
| Wezembeek-Oppem | 2,169 | 2,163 | 2,239 |
| Zaventem | 6,526 | 6,289 | 6,424 |
| Zemst | 35 | 32 | 39 |
| Eindtotaal | 98,723 | 98,882 | 100,598 |

Appendix A. Runway usage

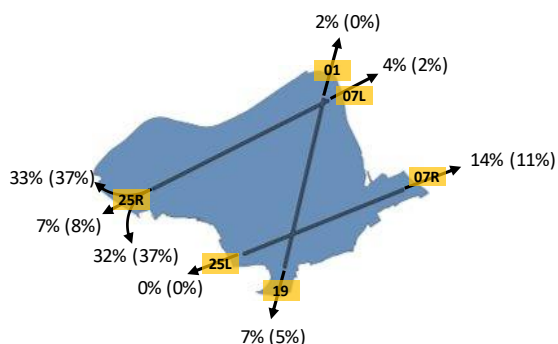
This Annex provides a full overview of runway usage. The number of departures and arrivals in 2025 are provided for each runway, both as an absolute figure and as a percentage, and compared against those for 2024 in terms of:

- The total
- The day period, from 07:00 to 19:00
- The evening period, from 19:00 to 23:00
- The night period, from 23:00 to 07:00

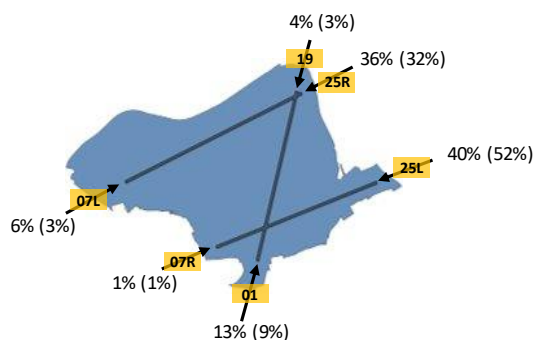
The figures show the share of departures and arrivals for each runway, with runway usage in 2024 between brackets. The tables also show the absolute number of movements.

Total runway usage: all flights (day, evening and night)

Departures



Arrivals

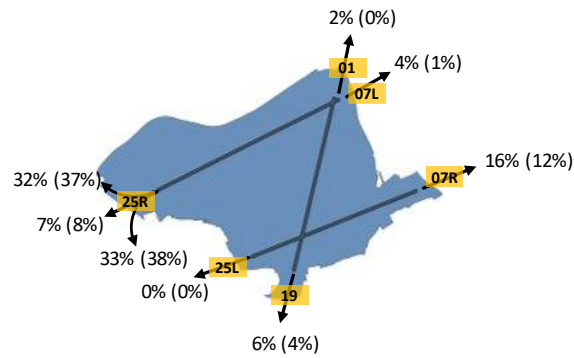


| All flights (day, evening, and night) | | | | |
|---------------------------------------|----------|--------|------------|-------|
| Departures | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 199 | 2,320 | 0.2% | 2.3% |
| 07L | 2,132 | 4,424 | 2.1% | 4.3% |
| 07R | 10,702 | 14,349 | 10.8% | 14.1% |
| 19 | 5,052 | 7,275 | 5.1% | 7.1% |
| 25L | 69 | 39 | 0.1% | 0.0% |
| 25R | 81,152 | 73,670 | 81.7% | 72.2% |

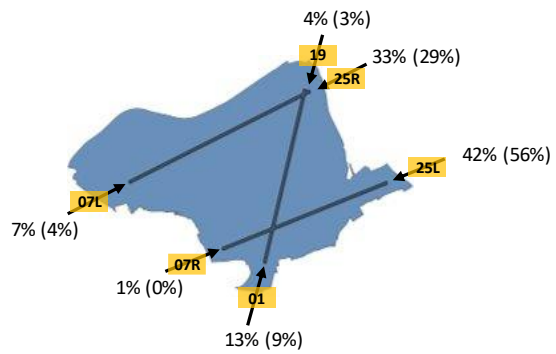
| All flights (day, evening, and night) | | | | |
|---------------------------------------|----------|--------|------------|-------|
| Arrivals | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 9,054 | 13,364 | 9.1% | 13.1% |
| 07L | 3,257 | 6,079 | 3.3% | 6.0% |
| 07R | 594 | 1,382 | 0.6% | 1.4% |
| 19 | 2,843 | 3,842 | 2.9% | 3.8% |
| 25L | 51,679 | 40,720 | 52.0% | 39.9% |
| 25R | 31,884 | 36,682 | 32.1% | 35.9% |

Runway usage over the day period, from 07:00 to 19:00

Departures



Arrivals

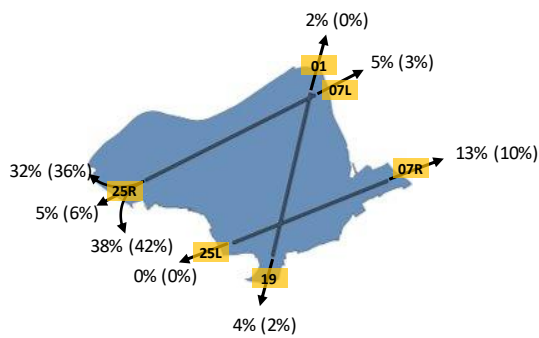


| Day flights | | | | |
|-------------|----------|--------|------------|-------|
| Departures | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 119 | 1,693 | 0.2% | 2.5% |
| 07L | 889 | 2,397 | 1.4% | 3.5% |
| 07R | 7,925 | 10,749 | 12.1% | 15.7% |
| 19 | 2,782 | 4,168 | 4.2% | 6.1% |
| 25L | 8 | 7 | 0.0% | 0.0% |
| 25R | 53,979 | 49,501 | 82.2% | 72.2% |

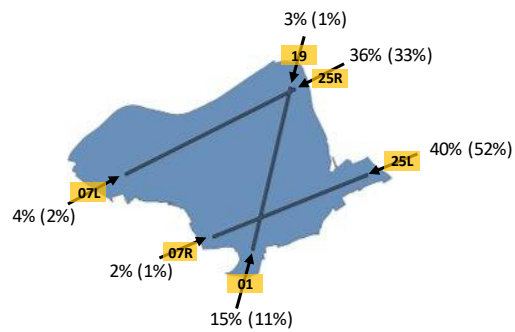
| Day flights | | | | |
|-------------|----------|--------|------------|-------|
| Arrivals | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 5,797 | 8,615 | 8.9% | 13.0% |
| 07L | 2,731 | 4,842 | 4.2% | 7.3% |
| 07R | 46 | 531 | 0.1% | 0.8% |
| 19 | 1,654 | 2,361 | 2.5% | 3.6% |
| 25L | 36,013 | 27,962 | 55.5% | 42.2% |
| 25R | 18,632 | 21,958 | 28.7% | 33.1% |

Runway usage over the evening period, from 19:00 to 23:00

Departures



Arrivals



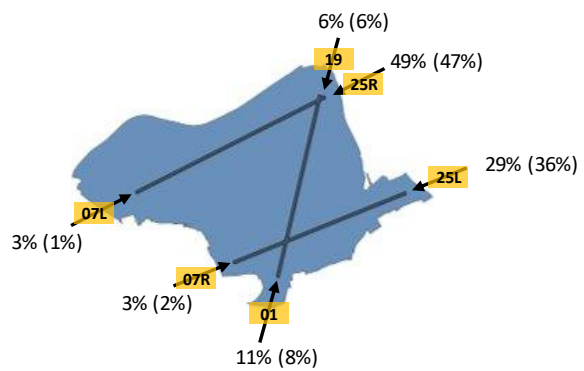
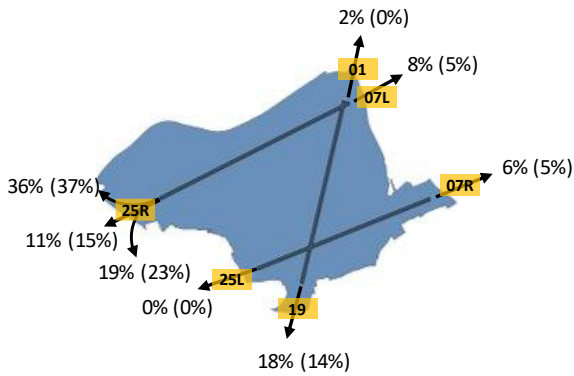
| Evening flights | | | | |
|-----------------|----------|--------|------------|-------|
| Departures | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 79 | 399 | 0.4% | 1.9% |
| 07L | 631 | 1,089 | 2.9% | 5.1% |
| 07R | 2,193 | 2,870 | 10.2% | 13.4% |
| 19 | 528 | 952 | 2.5% | 4.5% |
| 25L | 1 | 1 | 0.0% | 0.0% |
| 25R | 18,064 | 16,061 | 84.0% | 75.1% |

| Evening flights | | | | |
|-----------------|----------|-------|------------|-------|
| Arrivals | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 2,214 | 3,184 | 10.6% | 14.6% |
| 07L | 418 | 885 | 2.0% | 4.1% |
| 07R | 309 | 490 | 1.5% | 2.3% |
| 19 | 308 | 599 | 1.5% | 2.8% |
| 25L | 10,759 | 8,728 | 51.6% | 40.2% |
| 25R | 6,837 | 7,852 | 32.8% | 36.1% |

Runway usage over the night period from 23:00 to 07:00

Departures

Arrivals



| Night flights | | | | |
|---------------|----------|-------|------------|-------|
| Departures | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 1 | 228 | 0.0% | 1.9% |
| 07L | 612 | 938 | 5.1% | 7.7% |
| 07R | 584 | 730 | 4.8% | 6.0% |
| 19 | 1,742 | 2,155 | 14.4% | 17.7% |
| 25L | 60 | 31 | 0.5% | 0.3% |
| 25R | 9,109 | 8,108 | 75.2% | 66.5% |

| Night flights | | | | |
|---------------|----------|-------|------------|-------|
| Arrivals | | | | |
| Runway | Quantity | | Proportion | |
| | 2024 | 2025 | 2024 | 2025 |
| 01 | 1,043 | 1,565 | 7.7% | 11.1% |
| 07L | 108 | 352 | 0.8% | 2.5% |
| 07R | 239 | 361 | 1.8% | 2.6% |
| 19 | 881 | 882 | 6.5% | 6.3% |
| 25L | 4,907 | 4,030 | 36.1% | 28.7% |
| 25R | 6,415 | 6,872 | 47.2% | 48.9% |

Appendix B. Location of the measuring stations

This Annex shows the locations of the measuring station.

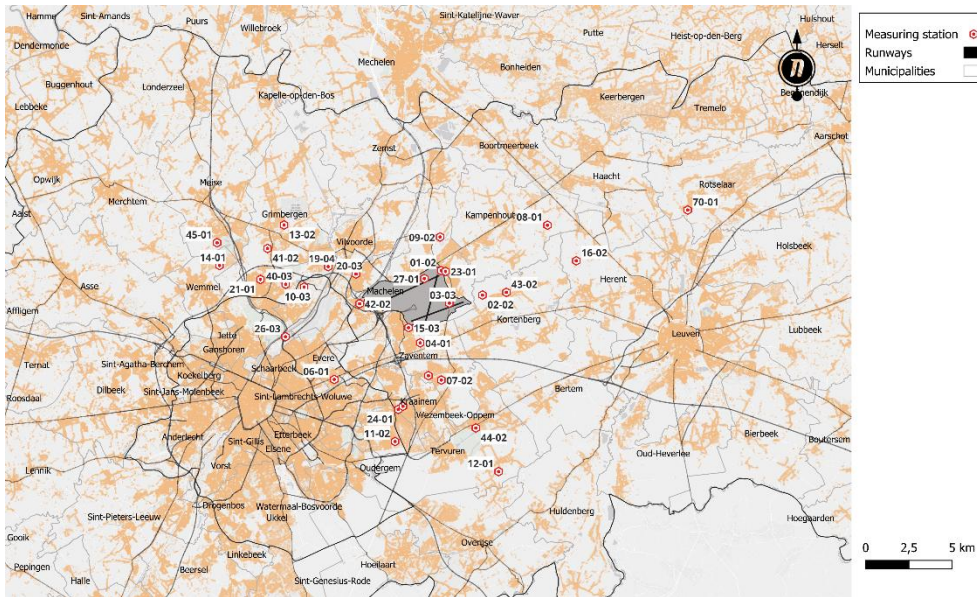


Figure 24: Location of the measuring stations

Table 9: Overview of the measuring stations

| Location code | Location name | Location code | Location name |
|---------------|---------------------|---------------|------------------|
| 01-02 | Steenokkerzeel | 40-02* | Koningslo |
| 02-02 | Kortenbergh | 41-01* | Grimbergen |
| 03-03 | Hummelgem | 42-02* | Diegem |
| 04-01 | Nossegem | 43-02* | Erps-Kwerps |
| 06-01 | Evere | 44-02* | Tervuren |
| 07-02 | Sterrebeek | 45-01* | Meise |
| 08-01 | Kampenhout | 46-02* | Wezembeek-Oppeem |
| 09-02 | Perk | 47-03* | Sterrebeek |
| 10-03 | Neder-Over-Heembeek | 48-03* | Bertem |
| 11-02 | Sint-Pieters-Woluwe | 70-01* | Rotselaar |
| 12-01 | Duisburg | | |
| 13-02 | Grimbergen | | |
| 14-01 | Wemmel | | |
| 15-03 | Zaventem | | |
| 16-02 | Veltem | | |
| 19-04 | Vilvoorde | | |
| 20-03 | Machelen | | |
| 21-01 | Stroombeek-Bever | | |
| 23-01 | Steenokkerzeel | | |
| 24-01 | Kraainem | | |
| 26-03 | Schaarbeek | | |

*noise data Department Environment off-line correlated by NMS

Appendix C. Results of the 2025 contour calculations

This Annex shows the number of residents per contour zone and per municipality.

C.1 Surface area per contour zone and per municipality

Table 10: Surface area per Lday contour zone and municipality (2025)

| Area (ha) | Lday - contour zones in dB(A) (d. 07h-19h) | | | | | Totaal |
|-----------------|--|------------|------------|------------|-----------|--------------|
| | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Brussel | 542 | 29 | 0 | 0 | 0 | 571 |
| Evere | 20 | 0 | 0 | 0 | 0 | 20 |
| Haacht | 1 | 0 | 0 | 0 | 0 | 1 |
| Herent | 201 | 0 | 0 | 0 | 0 | 201 |
| Kampenhout | 430 | 60 | 0 | 0 | 0 | 490 |
| Kortenbergh | 450 | 153 | 25 | 0 | 0 | 628 |
| Kraainem | 37 | 0 | 0 | 0 | 0 | 37 |
| Machelen | 407 | 277 | 104 | 35 | 2 | 825 |
| Steenokkerzeel | 494 | 314 | 204 | 99 | 75 | 1,186 |
| Vilvoorde | 9 | 0 | 0 | 0 | 0 | 9 |
| Wezembeek-Oppem | 41 | 0 | 0 | 0 | 0 | 41 |
| Zaventem | 411 | 138 | 38 | 36 | 16 | 639 |
| Total | 3,043 | 971 | 371 | 170 | 93 | 4,648 |

Tabel 11: Surface area per Levening contour zone and municipality (2025)

| Area (ha) | Levening - contour zones in dB(A) (ev. 19h-23h) | | | | | | |
|------------------------|---|--------------|------------|------------|------------|-----------|---------------|
| Municipality | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | Totaal |
| Brussel | 637 | 403 | 2 | 0 | 0 | 0 | 1,042 |
| Evere | 456 | 0 | 0 | 0 | 0 | 0 | 456 |
| Haacht | 731 | 0 | 0 | 0 | 0 | 0 | 731 |
| Herent | 706 | 112 | 0 | 0 | 0 | 0 | 818 |
| Kampenhout | 1,020 | 416 | 65 | 0 | 0 | 0 | 1,501 |
| Kortenbergh | 527 | 382 | 111 | 16 | 0 | 0 | 1,036 |
| Kraainem | 292 | 38 | 0 | 0 | 0 | 0 | 330 |
| Leuven | 220 | 0 | 0 | 0 | 0 | 0 | 220 |
| Machelen | 264 | 461 | 250 | 80 | 31 | 3 | 1,089 |
| Rotselaar | 182 | 0 | 0 | 0 | 0 | 0 | 182 |
| Schaarbeek | 79 | 0 | 0 | 0 | 0 | 0 | 79 |
| Sint-Lambrechts-Woluwe | 173 | 0 | 0 | 0 | 0 | 0 | 173 |
| Sint-Pieters-Woluwe | 209 | 0 | 0 | 0 | 0 | 0 | 209 |
| Steenokkerzeel | 477 | 491 | 285 | 197 | 86 | 66 | 1,602 |
| Tervuren | 84 | 0 | 0 | 0 | 0 | 0 | 84 |
| Vilvoorde | 454 | 0 | 0 | 0 | 0 | 0 | 454 |
| Wezembeek-Oppem | 140 | 42 | 0 | 0 | 0 | 0 | 182 |
| Zaventem | 891 | 414 | 115 | 37 | 29 | 8 | 1,494 |
| Total | 7,542 | 2,759 | 828 | 330 | 146 | 77 | 11,682 |

Tabel 12: Surface area per Lnight contour zone and municipality (2025)

| Area (ha) | Lnight - contour zones in dB(A) (n. 23h-07h) | | | | | | | Totaal |
|------------------------|--|--------------|--------------|--------------|------------|------------|-----------|---------------|
| | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | >70 | |
| Aarschot | 451 | 0 | 0 | 0 | 0 | 0 | 0 | 451 |
| Anderlecht | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| Asse | 495 | 0 | 0 | 0 | 0 | 0 | 0 | 495 |
| Begijnendijk | 509 | 0 | 0 | 0 | 0 | 0 | 0 | 509 |
| Bertem | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Bonheiden | 53 | 0 | 0 | 0 | 0 | 0 | 0 | 53 |
| Boortmeerbeek | 339 | 0 | 0 | 0 | 0 | 0 | 0 | 339 |
| Brussel | 1,276 | 762 | 370 | 0 | 0 | 0 | 0 | 2,408 |
| Dilbeek | 58 | 0 | 0 | 0 | 0 | 0 | 0 | 58 |
| Evere | 183 | 329 | 0 | 0 | 0 | 0 | 0 | 512 |
| Ganshoren | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Grimbergen | 1,104 | 339 | 0 | 0 | 0 | 0 | 0 | 1,443 |
| Haacht | 629 | 983 | 127 | 0 | 0 | 0 | 0 | 1,739 |
| Herent | 381 | 747 | 213 | 0 | 0 | 0 | 0 | 1,341 |
| Hoeilaart | 399 | 0 | 0 | 0 | 0 | 0 | 0 | 399 |
| Holsbeek | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| Huldenberg | 912 | 0 | 0 | 0 | 0 | 0 | 0 | 912 |
| Jette | 241 | 0 | 0 | 0 | 0 | 0 | 0 | 241 |
| Kampenhout | 812 | 1,039 | 607 | 195 | 14 | 0 | 0 | 2,667 |
| Koekelberg | 83 | 0 | 0 | 0 | 0 | 0 | 0 | 83 |
| Kortenberg | 625 | 506 | 348 | 118 | 18 | 0 | 0 | 1,615 |
| Kraainem | 318 | 222 | 44 | 0 | 0 | 0 | 0 | 584 |
| Leuven | 194 | 260 | 0 | 0 | 0 | 0 | 0 | 454 |
| Machelen | 17 | 255 | 538 | 243 | 63 | 27 | 7 | 1,150 |
| Mechelen | 124 | 0 | 0 | 0 | 0 | 0 | 0 | 124 |
| Meise | 155 | 0 | 0 | 0 | 0 | 0 | 0 | 155 |
| Oudergem | 217 | 1 | 0 | 0 | 0 | 0 | 0 | 218 |
| Overijse | 297 | 0 | 0 | 0 | 0 | 0 | 0 | 297 |
| Rotselaar | 2,437 | 949 | 0 | 0 | 0 | 0 | 0 | 3,386 |
| Schaarbeek | 515 | 74 | 0 | 0 | 0 | 0 | 0 | 589 |
| Sint-Jans-Molenbeek | 449 | 0 | 0 | 0 | 0 | 0 | 0 | 449 |
| Sint-Joost-ten-Node | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| Sint-Lambrechts-Woluwe | 555 | 0 | 0 | 0 | 0 | 0 | 0 | 555 |
| Sint-Pieters-Woluwe | 281 | 160 | 0 | 0 | 0 | 0 | 0 | 441 |
| Steenokkerzeel | 353 | 482 | 552 | 297 | 247 | 115 | 76 | 2,122 |
| Tervuren | 2,396 | 128 | 0 | 0 | 0 | 0 | 0 | 2,524 |
| Tremelo | 708 | 1 | 0 | 0 | 0 | 0 | 0 | 709 |
| Vilvoorde | 582 | 623 | 17 | 0 | 0 | 0 | 0 | 1,222 |
| Watermaal-Bosvoorde | 206 | 0 | 0 | 0 | 0 | 0 | 0 | 206 |
| Wemmel | 831 | 0 | 0 | 0 | 0 | 0 | 0 | 831 |
| Wezembeek-Oppem | 343 | 289 | 55 | 0 | 0 | 0 | 0 | 687 |
| Zaventem | 544 | 1,325 | 553 | 257 | 52 | 38 | 4 | 2,773 |
| Zemst | 111 | 31 | 0 | 0 | 0 | 0 | 0 | 142 |
| Total | 20,279 | 9,505 | 3,424 | 1,110 | 394 | 180 | 87 | 34,979 |

Tabel 13: Surface area per Lden contour zone and municipality (2025)

| Area (ha) | Lden - contour zones in dB(A) (d. 07h-19h, ev. 19h-23h, n. 23h-07h) | | | | | | | Totaal |
|------------------------|---|---------------|--------------|--------------|------------|------------|------------|---------------|
| | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Aarschot | 1,273 | 10 | 0 | 0 | 0 | 0 | 0 | 1,283 |
| Anderlecht | 665 | 0 | 0 | 0 | 0 | 0 | 0 | 665 |
| Asse | 991 | 0 | 0 | 0 | 0 | 0 | 0 | 991 |
| Begijnendijk | 926 | 76 | 0 | 0 | 0 | 0 | 0 | 1,002 |
| Bertem | 229 | 0 | 0 | 0 | 0 | 0 | 0 | 229 |
| Bonheiden | 407 | 0 | 0 | 0 | 0 | 0 | 0 | 407 |
| Boortmeerbeek | 395 | 78 | 0 | 0 | 0 | 0 | 0 | 473 |
| Brussel | 734 | 1,030 | 777 | 167 | 0 | 0 | 0 | 2,708 |
| Dilbeek | 2,794 | 0 | 0 | 0 | 0 | 0 | 0 | 2,794 |
| Etterbeek | 35 | 0 | 0 | 0 | 0 | 0 | 0 | 35 |
| Evere | 0 | 280 | 233 | 0 | 0 | 0 | 0 | 513 |
| Ganshoren | 244 | 0 | 0 | 0 | 0 | 0 | 0 | 244 |
| Graven | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| Grimbergen | 1,415 | 1,103 | 0 | 0 | 0 | 0 | 0 | 2,518 |
| Haacht | 445 | 889 | 618 | 0 | 0 | 0 | 0 | 1,952 |
| Herent | 605 | 604 | 548 | 26 | 0 | 0 | 0 | 1,783 |
| Hoeilaart | 856 | 61 | 0 | 0 | 0 | 0 | 0 | 917 |
| Holsbeek | 783 | 0 | 0 | 0 | 0 | 0 | 0 | 783 |
| Huldenberg | 2,589 | 0 | 0 | 0 | 0 | 0 | 0 | 2,589 |
| Jette | 519 | 0 | 0 | 0 | 0 | 0 | 0 | 519 |
| Kampenhout | 851 | 864 | 990 | 371 | 57 | 0 | 0 | 3,133 |
| Koekelberg | 100 | 18 | 0 | 0 | 0 | 0 | 0 | 118 |
| Kortenberg | 843 | 523 | 466 | 300 | 70 | 6 | 0 | 2,208 |
| Kraainem | 15 | 389 | 170 | 10 | 0 | 0 | 0 | 584 |
| Lennik | 55 | 0 | 0 | 0 | 0 | 0 | 0 | 55 |
| Leuven | 345 | 243 | 117 | 0 | 0 | 0 | 0 | 705 |
| Machelen | 0 | 115 | 391 | 404 | 171 | 46 | 23 | 1,150 |
| Mechelen | 194 | 0 | 0 | 0 | 0 | 0 | 0 | 194 |
| Meise | 673 | 18 | 0 | 0 | 0 | 0 | 0 | 691 |
| Merchtem | 417 | 0 | 0 | 0 | 0 | 0 | 0 | 417 |
| Oudergem | 302 | 138 | 0 | 0 | 0 | 0 | 0 | 440 |
| Overijse | 1,558 | 5 | 0 | 0 | 0 | 0 | 0 | 1,563 |
| Rotselaar | 1,169 | 2,456 | 70 | 0 | 0 | 0 | 0 | 3,695 |
| Schaarbeek | 311 | 474 | 5 | 0 | 0 | 0 | 0 | 790 |
| Sint-Agatha-Berchem | 295 | 0 | 0 | 0 | 0 | 0 | 0 | 295 |
| Sint-Gillis | 41 | 0 | 0 | 0 | 0 | 0 | 0 | 41 |
| Sint-Jans-Molenbeek | 507 | 94 | 0 | 0 | 0 | 0 | 0 | 601 |
| Sint-Joost-ten-Node | 108 | 2 | 0 | 0 | 0 | 0 | 0 | 110 |
| Sint-Katelijne-Waver | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 23 |
| Sint-Lambrechts-Woluwe | 213 | 517 | 0 | 0 | 0 | 0 | 0 | 730 |
| Sint-Pieters-Leeuw | 12 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| Sint-Pieters-Woluwe | 401 | 308 | 82 | 0 | 0 | 0 | 0 | 791 |
| Steenokkerzeel | 425 | 352 | 554 | 436 | 273 | 179 | 131 | 2,350 |
| Terhulpen | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| Tervuren | 2,025 | 1,286 | 0 | 0 | 0 | 0 | 0 | 3,311 |
| Tremelo | 1,100 | 193 | 0 | 0 | 0 | 0 | 0 | 1,293 |
| Vilvoorde | 740 | 679 | 269 | 0 | 0 | 0 | 0 | 1,688 |
| Vorst | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Waterloo | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 139 |
| Watermaal-Bosvoorde | 189 | 131 | 0 | 0 | 0 | 0 | 0 | 320 |
| Waver | 60 | 0 | 0 | 0 | 0 | 0 | 0 | 60 |
| Wemmel | 493 | 385 | 0 | 0 | 0 | 0 | 0 | 878 |
| Wezembeek-Oppem | 0 | 554 | 126 | 6 | 0 | 0 | 0 | 686 |
| Zaventem | 62 | 1,398 | 739 | 396 | 109 | 37 | 31 | 2,772 |
| Zemst | 216 | 74 | 0 | 0 | 0 | 0 | 0 | 290 |
| Total | 29,973 | 15,347 | 6,155 | 2,116 | 680 | 268 | 185 | 54,724 |

Tabel 14: Surface area per Freq.60,day contour zone and municipality (2025)

| Area (ha) | Freq.60,day - contour zones (day 07h-19h) | | | | |
|------------------------|---|--------------|------------|------------|---------------|
| | 50-100 | 100-150 | 150-200 | >200 | Totaal |
| Aarschot | 3 | 0 | 0 | 0 | 3 |
| Brussel | 671 | 452 | 0 | 0 | 1,123 |
| Evere | 391 | 0 | 0 | 0 | 391 |
| Grimbergen | 69 | 0 | 0 | 0 | 69 |
| Haacht | 827 | 235 | 0 | 0 | 1,062 |
| Herent | 530 | 459 | 0 | 0 | 989 |
| Kampenhout | 1,421 | 79 | 0 | 0 | 1,500 |
| Kortenberg | 191 | 808 | 0 | 0 | 999 |
| Kraainem | 521 | 0 | 0 | 0 | 521 |
| Leuven | 198 | 130 | 0 | 0 | 328 |
| Machelen | 189 | 623 | 291 | 0 | 1,103 |
| Rotselaar | 1,354 | 42 | 0 | 0 | 1,396 |
| Schaarbeek | 13 | 0 | 0 | 0 | 13 |
| Sint-Lambrechts-Woluwe | 304 | 0 | 0 | 0 | 304 |
| Sint-Pieters-Woluwe | 270 | 0 | 0 | 0 | 270 |
| Steenokkerzeel | 279 | 574 | 413 | 256 | 1,522 |
| Tervuren | 496 | 0 | 0 | 0 | 496 |
| Vilvoorde | 407 | 0 | 0 | 0 | 407 |
| Wezembeek-Oppem | 543 | 0 | 0 | 0 | 543 |
| Zaventem | 846 | 226 | 241 | 10 | 1,323 |
| Total | 9,523 | 3,628 | 945 | 266 | 14,362 |

Tabel 15: Surface area per Freq.60, evening contour zone and municipality (2025)

| Area (ha) | Freq.60, evening - contour zones in dB(A) (av. 19h-23h) | | | | |
|------------------------|---|--------------|--------------|--------------|---------------|
| | 10-15 | 15-20 | 20-30 | >30 | Totaal |
| Aarschot | 166 | 4 | 0 | 0 | 170 |
| Begijnendijk | 101 | 0 | 0 | 0 | 101 |
| Brussel | 303 | 200 | 324 | 472 | 1,299 |
| Evere | 46 | 197 | 270 | 0 | 513 |
| Grimbergen | 864 | 51 | 0 | 0 | 915 |
| Haacht | 239 | 122 | 727 | 237 | 1,325 |
| Herent | 138 | 74 | 406 | 488 | 1,106 |
| Kampenhout | 144 | 129 | 976 | 400 | 1,649 |
| Kortenberg | 109 | 52 | 122 | 803 | 1,086 |
| Kraainem | 8 | 159 | 410 | 6 | 583 |
| Leuven | 19 | 17 | 145 | 161 | 342 |
| Machelen | 28 | 35 | 120 | 965 | 1,148 |
| Meise | 1 | 0 | 0 | 0 | 1 |
| Oudergem | 32 | 0 | 0 | 0 | 32 |
| Overijse | 48 | 0 | 0 | 0 | 48 |
| Rotselaar | 502 | 706 | 818 | 54 | 2,080 |
| Schaarbeek | 214 | 18 | 0 | 0 | 232 |
| Sint-Lambrechts-Woluwe | 158 | 217 | 184 | 0 | 559 |
| Sint-Pieters-Woluwe | 93 | 130 | 222 | 1 | 446 |
| Steenokkerzeel | 149 | 139 | 125 | 1,303 | 1,716 |
| Tervuren | 650 | 497 | 288 | 0 | 1,435 |
| Tremelo | 157 | 0 | 0 | 0 | 157 |
| Vilvoorde | 431 | 253 | 84 | 1 | 769 |
| Wemmel | 207 | 0 | 0 | 0 | 207 |
| Wezembeek-Oppem | 58 | 135 | 445 | 7 | 645 |
| Zaventem | 331 | 458 | 488 | 513 | 1,790 |
| Total | 5,196 | 3,593 | 6,154 | 5,411 | 20,354 |

Tabel 16: Surface area per Freq.60,night contour zone and municipality (2025)

| Area (ha) | Freq.60,night - contour zones (night 23h-07h) | | | | |
|---------------------|---|--------------|--------------|--------------|---------------|
| | 10-15 | 15-20 | 20-30 | >30 | Totaal |
| Begijnendijk | 112 | 0 | 0 | 0 | 112 |
| Brussel | 484 | 475 | 299 | 0 | 1,258 |
| Evere | 163 | 5 | 0 | 0 | 168 |
| Grimbergen | 472 | 0 | 0 | 0 | 472 |
| Haacht | 473 | 195 | 610 | 0 | 1,278 |
| Herent | 898 | 42 | 122 | 0 | 1,062 |
| Kampenhout | 205 | 248 | 1,236 | 8 | 1,697 |
| Kortenberg | 537 | 399 | 70 | 0 | 1,006 |
| Kraainem | 342 | 0 | 0 | 0 | 342 |
| Leuven | 330 | 0 | 0 | 0 | 330 |
| Machelen | 98 | 145 | 883 | 24 | 1,150 |
| Rotselaar | 1,028 | 755 | 35 | 0 | 1,818 |
| Sint-Pieters-Woluwe | 76 | 0 | 0 | 0 | 76 |
| Steenokkerzeel | 133 | 211 | 520 | 877 | 1,741 |
| Tervuren | 110 | 0 | 0 | 0 | 110 |
| Tremelo | 200 | 18 | 0 | 0 | 218 |
| Vilvoorde | 636 | 40 | 0 | 0 | 676 |
| Wemmel | 1 | 0 | 0 | 0 | 1 |
| Wezembeek-Oppem | 376 | 0 | 0 | 0 | 376 |
| Zaventem | 543 | 191 | 296 | 320 | 1,350 |
| Total | 7,217 | 2,724 | 4,071 | 1,229 | 15,241 |

Tabel 17: Surface area per Freq.70,day contour zone and municipality (2025)

| Area (ha) | Freq.70,day - contour zones (day 07h-19h) | | | | | Totaal |
|------------------------|---|--------------|--------------|--------------|--------------|---------------|
| | 5-10 | 10-20 | 20-50 | 50-100 | >100 | |
| Boortmeerbeek | 85 | 0 | 0 | 0 | 0 | 85 |
| Brussel | 391 | 392 | 594 | 177 | 6 | 1,560 |
| Evere | 126 | 280 | 106 | 0 | 0 | 512 |
| Grimbergen | 415 | 151 | 0 | 0 | 0 | 566 |
| Haacht | 365 | 120 | 55 | 1 | 0 | 541 |
| Herent | 326 | 52 | 83 | 168 | 0 | 629 |
| Jette | 9 | 0 | 0 | 0 | 0 | 9 |
| Kampenhout | 517 | 412 | 280 | 401 | 0 | 1,610 |
| Kortenberg | 226 | 128 | 236 | 332 | 147 | 1,069 |
| Kraainem | 33 | 40 | 148 | 0 | 0 | 221 |
| Leuven | 116 | 0 | 0 | 0 | 0 | 116 |
| Machelen | 56 | 96 | 222 | 211 | 389 | 974 |
| Oudergem | 21 | 1 | 0 | 0 | 0 | 22 |
| Rotselaar | 141 | 0 | 0 | 0 | 0 | 141 |
| Schaarbeek | 195 | 48 | 0 | 0 | 0 | 243 |
| Sint-Jans-Molenbeek | 16 | 0 | 0 | 0 | 0 | 16 |
| Sint-Lambrechts-Woluwe | 448 | 3 | 0 | 0 | 0 | 451 |
| Sint-Pieters-Woluwe | 57 | 43 | 76 | 0 | 0 | 176 |
| Steenokkerzeel | 210 | 226 | 386 | 334 | 460 | 1,616 |
| Tervuren | 32 | 63 | 24 | 0 | 0 | 119 |
| Vilvoorde | 128 | 387 | 35 | 0 | 0 | 550 |
| Wemmel | 5 | 0 | 0 | 0 | 0 | 5 |
| Wezembeek-Oppem | 18 | 29 | 102 | 0 | 0 | 149 |
| Zaventem | 742 | 377 | 456 | 148 | 67 | 1,790 |
| Zemst | 63 | 0 | 0 | 0 | 0 | 63 |
| Total | 4,741 | 2,848 | 2,803 | 1,772 | 1,069 | 13,233 |

Tabel 18: Surface area per Freq.70, evening contour zone and municipality (2025)

| Area (ha) | Freq.70, evening - contour zones in dB(A) (av. 19h-23h) | | | | |
|------------------------|---|--------------|--------------|--------------|---------------|
| | 1-5 | 5-10 | 10-20 | >20 | Totaal |
| Boortmeerbeek | 105 | 0 | 0 | 0 | 105 |
| Brussel | 821 | 341 | 323 | 75 | 1,560 |
| Evere | 304 | 202 | 7 | 0 | 513 |
| Grimbergen | 635 | 0 | 0 | 0 | 635 |
| Haacht | 457 | 33 | 30 | 0 | 520 |
| Herent | 308 | 46 | 77 | 124 | 555 |
| Kampenhout | 1,058 | 188 | 211 | 360 | 1,817 |
| Kortenbergh | 366 | 195 | 95 | 421 | 1,077 |
| Kraainem | 242 | 161 | 9 | 0 | 412 |
| Machelen | 108 | 139 | 217 | 548 | 1,012 |
| Oudergem | 32 | 0 | 0 | 0 | 32 |
| Rotselaar | 169 | 0 | 0 | 0 | 169 |
| Schaarbeek | 519 | 0 | 0 | 0 | 519 |
| Sint-Jans-Molenbeek | 20 | 0 | 0 | 0 | 20 |
| Sint-Joost-ten-Node | 1 | 0 | 0 | 0 | 1 |
| Sint-Lambrechts-Woluwe | 581 | 0 | 0 | 0 | 581 |
| Sint-Pieters-Woluwe | 62 | 100 | 0 | 0 | 162 |
| Steenokkerzeel | 404 | 246 | 317 | 685 | 1,652 |
| Tervuren | 76 | 54 | 0 | 0 | 130 |
| Vilvoorde | 602 | 82 | 4 | 0 | 688 |
| Wemmel | 40 | 0 | 0 | 0 | 40 |
| Wezembeek-Oppeem | 39 | 116 | 2 | 0 | 157 |
| Zaventem | 1,231 | 319 | 315 | 149 | 2,014 |
| Zemst | 72 | 0 | 0 | 0 | 72 |
| Total | 8,252 | 2,222 | 1,607 | 2,362 | 14,443 |

Tabel 19: Surface area per Freq.70,night contour zone and municipality (2025)

| Area (ha) | Freq.70,night - contour zones (night 23h-07h) | | | | |
|------------------------|---|--------------|--------------|--------------|---------------|
| Municipality | 1-5 | 5-10 | 10-20 | >20 | Totaal |
| Boortmeerbeek | 208 | 0 | 0 | 0 | 208 |
| Brussel | 740 | 450 | 142 | 0 | 1,332 |
| Evere | 447 | 0 | 0 | 0 | 447 |
| Grimbergen | 830 | 7 | 0 | 0 | 837 |
| Haacht | 305 | 259 | 31 | 0 | 595 |
| Herent | 191 | 171 | 147 | 0 | 509 |
| Hoeilaart | 12 | 0 | 0 | 0 | 12 |
| Kampenhout | 884 | 172 | 409 | 243 | 1,708 |
| Kortenberg | 277 | 124 | 433 | 0 | 834 |
| Kraainem | 215 | 29 | 0 | 0 | 244 |
| Leuven | 159 | 0 | 0 | 0 | 159 |
| Machelen | 236 | 194 | 299 | 346 | 1,075 |
| Mechelen | 1 | 0 | 0 | 0 | 1 |
| Meise | 40 | 0 | 0 | 0 | 40 |
| Oudergem | 93 | 0 | 0 | 0 | 93 |
| Rotselaar | 630 | 0 | 0 | 0 | 630 |
| Schaarbeek | 194 | 0 | 0 | 0 | 194 |
| Sint-Lambrechts-Woluwe | 50 | 0 | 0 | 0 | 50 |
| Sint-Pieters-Woluwe | 173 | 0 | 0 | 0 | 173 |
| Steenokkerzeel | 550 | 216 | 416 | 550 | 1,732 |
| Tervuren | 628 | 0 | 0 | 0 | 628 |
| Tremelo | 1 | 0 | 0 | 0 | 1 |
| Vilvoorde | 433 | 229 | 0 | 0 | 662 |
| Watermaal-Bosvoorde | 79 | 0 | 0 | 0 | 79 |
| Wemmel | 91 | 0 | 0 | 0 | 91 |
| Wezembeek-Oppem | 274 | 36 | 0 | 0 | 310 |
| Zaventem | 1,236 | 595 | 344 | 85 | 2,260 |
| Zemst | 91 | 0 | 0 | 0 | 91 |
| Totaal | 9,068 | 2,482 | 2,221 | 1,224 | 14,995 |

C.2 Number of residents per contour zone and per municipality based on housing stock as at 01-01-2026

Table 20: Number of residents per L_{day} contour zone and municipality (2025)

| Number of inhabitants | L_{day} - contour zones in dB(A) (d. 07h-19h) | | | | | |
|-----------------------|---|--------------|------------|----------|----------|---------------|
| Municipality | 55-60 | 60-65 | 65-70 | 70-75 | >75 | Totaal |
| Brussel | 7,210 | 605 | 0 | 0 | 0 | 7,815 |
| Evere | 630 | 0 | 0 | 0 | 0 | 630 |
| Herent | 503 | 0 | 0 | 0 | 0 | 503 |
| Kampenhout | 1,087 | 199 | 0 | 0 | 0 | 1,286 |
| Kortenberg | 2,117 | 241 | 0 | 0 | 0 | 2,358 |
| Kraainem | 259 | 0 | 0 | 0 | 0 | 259 |
| Machelen | 5,856 | 4,620 | 111 | 0 | 0 | 10,587 |
| Steenokkerzeel | 5,836 | 1,032 | 191 | 0 | 0 | 7,059 |
| Wezembeek-Oppem | 785 | 0 | 0 | 0 | 0 | 785 |
| Zaventem | 6,189 | 304 | 0 | 0 | 0 | 6,493 |
| Total | 30,472 | 7,001 | 302 | 0 | 0 | 37,775 |

Table 21: Number of residents per $L_{evening}$ contour zone and municipality (2025)

| Number of inhabitants | $L_{evening}$ - contour zones in dB(A) (ev. 19h-23h) | | | | | | |
|------------------------|--|---------------|--------------|------------|----------|----------|----------------|
| Municipality | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | Totaal |
| Brussel | 7,804 | 7,274 | 248 | 0 | 0 | 0 | 15,326 |
| Evere | 39,484 | 0 | 0 | 0 | 0 | 0 | 39,484 |
| Haacht | 2,128 | 0 | 0 | 0 | 0 | 0 | 2,128 |
| Herent | 1,423 | 72 | 0 | 0 | 0 | 0 | 1,495 |
| Kampenhout | 4,363 | 1,073 | 214 | 0 | 0 | 0 | 5,650 |
| Kortenberg | 3,248 | 1,621 | 134 | 0 | 0 | 0 | 5,003 |
| Kraainem | 8,508 | 271 | 0 | 0 | 0 | 0 | 8,779 |
| Leuven | 686 | 0 | 0 | 0 | 0 | 0 | 686 |
| Machelen | 6,142 | 6,494 | 3,706 | 26 | 0 | 0 | 16,368 |
| Rotselaar | 129 | 0 | 0 | 0 | 0 | 0 | 129 |
| Schaarbeek | 14,611 | 0 | 0 | 0 | 0 | 0 | 14,611 |
| Sint-Lambrechts-Woluwe | 8,680 | 0 | 0 | 0 | 0 | 0 | 8,680 |
| Sint-Pieters-Woluwe | 8,966 | 0 | 0 | 0 | 0 | 0 | 8,966 |
| Steenokkerzeel | 3,628 | 5,378 | 790 | 194 | 0 | 0 | 9,990 |
| Vilvoorde | 8,146 | 0 | 0 | 0 | 0 | 0 | 8,146 |
| Wezembeek-Oppem | 3,789 | 811 | 0 | 0 | 0 | 0 | 4,600 |
| Zaventem | 16,881 | 6,472 | 143 | 0 | 0 | 0 | 23,496 |
| Total | 138,616 | 29,466 | 5,235 | 220 | 0 | 0 | 173,537 |

Table 22: Number of residents per L_{night} contour zone and municipality (2025)

| Number of inhabitants | L _{night} - contour zones in dB(A) (n. 23h-07h) | | | | | | | Totaal |
|------------------------|--|----------------|---------------|--------------|------------|-----------|----------|----------------|
| | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | >70 | |
| Aarschot | 1,575 | 0 | 0 | 0 | 0 | 0 | 0 | 1,575 |
| Anderlecht | 5,525 | 0 | 0 | 0 | 0 | 0 | 0 | 5,525 |
| Asse | 10,499 | 0 | 0 | 0 | 0 | 0 | 0 | 10,499 |
| Begijnendijk | 2,862 | 0 | 0 | 0 | 0 | 0 | 0 | 2,862 |
| Bonheiden | 81 | 0 | 0 | 0 | 0 | 0 | 0 | 81 |
| Boortmeerbeek | 3,142 | 0 | 0 | 0 | 0 | 0 | 0 | 3,142 |
| Brussel | 97,573 | 15,761 | 6,967 | 0 | 0 | 0 | 0 | 120,301 |
| Dilbeek | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |
| Evere | 20,131 | 25,642 | 0 | 0 | 0 | 0 | 0 | 45,773 |
| Ganshoren | 177 | 0 | 0 | 0 | 0 | 0 | 0 | 177 |
| Grimbergen | 12,560 | 14,750 | 0 | 0 | 0 | 0 | 0 | 27,310 |
| Haacht | 3,025 | 4,160 | 98 | 0 | 0 | 0 | 0 | 7,283 |
| Herent | 1,401 | 1,359 | 463 | 0 | 0 | 0 | 0 | 3,223 |
| Hoeilaart | 159 | 0 | 0 | 0 | 0 | 0 | 0 | 159 |
| Holsbeek | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Huldenberg | 3,023 | 0 | 0 | 0 | 0 | 0 | 0 | 3,023 |
| Jette | 21,032 | 0 | 0 | 0 | 0 | 0 | 0 | 21,032 |
| Kampenhout | 3,850 | 4,917 | 1,835 | 420 | 122 | 0 | 0 | 11,144 |
| Koekelberg | 15,599 | 0 | 0 | 0 | 0 | 0 | 0 | 15,599 |
| Kortenberg | 7,340 | 2,768 | 1,505 | 138 | 0 | 0 | 0 | 11,751 |
| Kraainem | 7,756 | 5,854 | 322 | 0 | 0 | 0 | 0 | 13,932 |
| Leuven | 2,317 | 1,019 | 0 | 0 | 0 | 0 | 0 | 3,336 |
| Machelen | 3 | 4,850 | 9,234 | 2,666 | 15 | 0 | 0 | 16,768 |
| Mechelen | 464 | 0 | 0 | 0 | 0 | 0 | 0 | 464 |
| Meise | 1,129 | 0 | 0 | 0 | 0 | 0 | 0 | 1,129 |
| Oudergem | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Overijse | 1,007 | 0 | 0 | 0 | 0 | 0 | 0 | 1,007 |
| Rotselaar | 12,465 | 4,663 | 0 | 0 | 0 | 0 | 0 | 17,128 |
| Schaarbeek | 80,266 | 14,188 | 0 | 0 | 0 | 0 | 0 | 94,454 |
| Sint-Jans-Molenbeek | 86,540 | 0 | 0 | 0 | 0 | 0 | 0 | 86,540 |
| Sint-Joost-ten-Node | 4,632 | 0 | 0 | 0 | 0 | 0 | 0 | 4,632 |
| Sint-Lambrechts-Woluwe | 38,418 | 0 | 0 | 0 | 0 | 0 | 0 | 38,418 |
| Sint-Pieters-Woluwe | 13,203 | 5,800 | 0 | 0 | 0 | 0 | 0 | 19,003 |
| Steenokkerzeel | 1,721 | 2,276 | 5,699 | 2,146 | 366 | 16 | 0 | 12,224 |
| Tervuren | 20,962 | 515 | 0 | 0 | 0 | 0 | 0 | 21,477 |
| Tremelo | 4,428 | 2 | 0 | 0 | 0 | 0 | 0 | 4,430 |
| Vilvoorde | 24,024 | 14,452 | 0 | 0 | 0 | 0 | 0 | 38,476 |
| Watermaal-Bosvoorde | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Wemmel | 18,139 | 0 | 0 | 0 | 0 | 0 | 0 | 18,139 |
| Wezembeek-Oppem | 6,936 | 6,738 | 1,078 | 0 | 0 | 0 | 0 | 14,752 |
| Zaventem | 8,255 | 17,848 | 10,392 | 617 | 0 | 0 | 0 | 37,112 |
| Zemst | 215 | 68 | 0 | 0 | 0 | 0 | 0 | 283 |
| Total | 542,449 | 147,630 | 37,593 | 5,987 | 503 | 16 | 0 | 734,178 |

Table 23: Number of residents per L_{den} contour zone and municipality (2025)

| Number of inhabitants | Lden - contour zones in dB(A) (d. 07h-19h, ev. 19h-23h, n. 23h-07h) | | | | | | | Totaal |
|------------------------|---|----------------|---------------|---------------|--------------|------------|----------|------------------|
| | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Aarschot | 3,935 | 73 | 0 | 0 | 0 | 0 | 0 | 4,008 |
| Anderlecht | 82,354 | 0 | 0 | 0 | 0 | 0 | 0 | 82,354 |
| Asse | 13,421 | 0 | 0 | 0 | 0 | 0 | 0 | 13,421 |
| Begijnendijk | 4,790 | 271 | 0 | 0 | 0 | 0 | 0 | 5,061 |
| Bertem | 275 | 0 | 0 | 0 | 0 | 0 | 0 | 275 |
| Bonheiden | 3,622 | 0 | 0 | 0 | 0 | 0 | 0 | 3,622 |
| Boortmeerbeek | 3,782 | 567 | 0 | 0 | 0 | 0 | 0 | 4,349 |
| Brussel | 87,521 | 63,069 | 7,338 | 4,862 | 0 | 0 | 0 | 162,790 |
| Dilbeek | 36,937 | 0 | 0 | 0 | 0 | 0 | 0 | 36,937 |
| Etterbeek | 3,961 | 0 | 0 | 0 | 0 | 0 | 0 | 3,961 |
| Evere | 0 | 30,298 | 15,475 | 0 | 0 | 0 | 0 | 45,773 |
| Ganshoren | 25,741 | 0 | 0 | 0 | 0 | 0 | 0 | 25,741 |
| Grez-Doiceau | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Grimbergen | 11,007 | 23,258 | 0 | 0 | 0 | 0 | 0 | 34,265 |
| Haacht | 3,237 | 4,215 | 1,609 | 0 | 0 | 0 | 0 | 9,061 |
| Herent | 3,791 | 1,454 | 1,047 | 16 | 0 | 0 | 0 | 6,308 |
| Hoeilaart | 583 | 33 | 0 | 0 | 0 | 0 | 0 | 616 |
| Holsbeek | 2,289 | 0 | 0 | 0 | 0 | 0 | 0 | 2,289 |
| Huldenberg | 7,499 | 0 | 0 | 0 | 0 | 0 | 0 | 7,499 |
| Jette | 54,276 | 0 | 0 | 0 | 0 | 0 | 0 | 54,276 |
| Kampenhout | 2,873 | 4,583 | 3,815 | 884 | 193 | 0 | 0 | 12,348 |
| Koekelberg | 17,810 | 5,090 | 0 | 0 | 0 | 0 | 0 | 22,900 |
| Kortenberg | 8,080 | 4,375 | 2,840 | 950 | 26 | 0 | 0 | 16,271 |
| Kraainem | 138 | 9,957 | 3,790 | 48 | 0 | 0 | 0 | 13,933 |
| La Hulpe | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Lennik | 213 | 0 | 0 | 0 | 0 | 0 | 0 | 213 |
| Leuven | 5,585 | 1,371 | 330 | 0 | 0 | 0 | 0 | 7,286 |
| Machelen | 0 | 1,241 | 7,149 | 7,628 | 749 | 0 | 0 | 16,767 |
| Mechelen | 727 | 0 | 0 | 0 | 0 | 0 | 0 | 727 |
| Meise | 6,261 | 381 | 0 | 0 | 0 | 0 | 0 | 6,642 |
| Merchtem | 1,387 | 0 | 0 | 0 | 0 | 0 | 0 | 1,387 |
| Oudergem | 1,253 | 2 | 0 | 0 | 0 | 0 | 0 | 1,255 |
| Overijse | 3,482 | 61 | 0 | 0 | 0 | 0 | 0 | 3,543 |
| Rotselaar | 3,760 | 13,925 | 2 | 0 | 0 | 0 | 0 | 17,687 |
| Schaarbeek | 53,077 | 76,282 | 15 | 0 | 0 | 0 | 0 | 129,374 |
| Sint-Agatha-Berchem | 25,753 | 0 | 0 | 0 | 0 | 0 | 0 | 25,753 |
| Sint-Gillis | 2,181 | 0 | 0 | 0 | 0 | 0 | 0 | 2,181 |
| Sint-Jans-Molenbeek | 77,362 | 21,148 | 0 | 0 | 0 | 0 | 0 | 98,510 |
| Sint-Joost-ten-Node | 25,168 | 0 | 0 | 0 | 0 | 0 | 0 | 25,168 |
| Sint-Katelijne-Waver | 39 | 0 | 0 | 0 | 0 | 0 | 0 | 39 |
| Sint-Lambrechts-Woluwe | 25,788 | 35,089 | 0 | 0 | 0 | 0 | 0 | 60,877 |
| Sint-Pieters-Leeuw | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| Sint-Pieters-Woluwe | 17,834 | 14,676 | 2,226 | 0 | 0 | 0 | 0 | 34,736 |
| Steenokkerzeel | 1,273 | 1,746 | 4,509 | 4,299 | 718 | 177 | 0 | 12,722 |
| Tervuren | 11,574 | 11,664 | 0 | 0 | 0 | 0 | 0 | 23,238 |
| Tremelo | 7,846 | 594 | 0 | 0 | 0 | 0 | 0 | 8,440 |
| Vilvoorde | 18,940 | 22,098 | 3,544 | 0 | 0 | 0 | 0 | 44,582 |
| Waterloo | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| Watermaal-Bosvoorde | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 |
| Wavre | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Wemmel | 5,687 | 12,598 | 0 | 0 | 0 | 0 | 0 | 18,285 |
| Wezembeek-Oppem | 0 | 11,572 | 3,173 | 7 | 0 | 0 | 0 | 14,752 |
| Zaventem | 257 | 19,000 | 12,758 | 5,087 | 10 | 0 | 0 | 37,112 |
| Zemst | 1,564 | 97 | 0 | 0 | 0 | 0 | 0 | 1,661 |
| Total | 675,003 | 390,789 | 69,620 | 23,781 | 1,696 | 177 | 0 | 1,161,066 |

Table 24: Number of residents per Freq.70,day contour zone and municipality 2025

| Number of inhabitants | Freq.70,day - contour zones (day 07h-19h) | | | | | Totaal |
|------------------------|---|---------------|---------------|---------------|--------------|----------------|
| | 5-10 | 10-20 | 20-50 | 50-100 | >100 | |
| Boortmeerbeek | 686 | 0 | 0 | 0 | 0 | 686 |
| Brussel | 30,268 | 5,385 | 3,480 | 5,150 | 262 | 44,545 |
| Evere | 15,002 | 25,493 | 5,278 | 0 | 0 | 45,773 |
| Grimbergen | 5,900 | 11,159 | 0 | 0 | 0 | 17,059 |
| Haacht | 1,268 | 97 | 15 | 0 | 0 | 1,380 |
| Herent | 636 | 100 | 269 | 365 | 0 | 1,370 |
| Jette | 1,788 | 0 | 0 | 0 | 0 | 1,788 |
| Kampenhout | 1,910 | 1,487 | 911 | 885 | 0 | 5,193 |
| Kortenbergh | 2,007 | 1,333 | 1,272 | 1,275 | 417 | 6,304 |
| Kraainem | 973 | 821 | 3,089 | 0 | 0 | 4,883 |
| Leuven | 270 | 0 | 0 | 0 | 0 | 270 |
| Machelen | 1,880 | 2,040 | 2,984 | 3,402 | 4,057 | 14,363 |
| Rotselaar | 61 | 0 | 0 | 0 | 0 | 61 |
| Schaarbeek | 25,565 | 8,971 | 0 | 0 | 0 | 34,536 |
| Sint-Jans-Molenbeek | 4,553 | 0 | 0 | 0 | 0 | 4,553 |
| Sint-Lambrechts-Woluwe | 31,755 | 81 | 0 | 0 | 0 | 31,836 |
| Sint-Pieters-Woluwe | 3,535 | 2,019 | 1,530 | 0 | 0 | 7,084 |
| Steenokkerzeel | 1,238 | 1,692 | 3,931 | 2,201 | 559 | 9,621 |
| Vilvoorde | 2,763 | 9,573 | 254 | 0 | 0 | 12,590 |
| Wemmel | 5 | 0 | 0 | 0 | 0 | 5 |
| Wezembeek-Opem | 436 | 911 | 2,307 | 0 | 0 | 3,654 |
| Zaventem | 14,270 | 5,654 | 3,413 | 1,360 | 814 | 25,511 |
| Zemst | 95 | 0 | 0 | 0 | 0 | 95 |
| Total | 146,864 | 76,816 | 28,733 | 14,638 | 6,109 | 273,160 |

Table 25: Number of residents per Freq.70, evening contour zone and municipality 2025

| Number of inhabitants | Freq.70, evening - contour zones (eve. 19h-23h) | | | | |
|------------------------|---|---------------|---------------|---------------|----------------|
| | 1-5 | 5-10 | 10-20 | >20 | Totaal |
| Boortmeerbeek | 780 | 0 | 0 | 0 | 780 |
| Brussel | 34,571 | 1,533 | 5,220 | 2,016 | 43,340 |
| Evere | 32,259 | 13,435 | 79 | 0 | 45,773 |
| Grimbergen | 18,668 | 0 | 0 | 0 | 18,668 |
| Haacht | 1,509 | 19 | 2 | 0 | 1,530 |
| Herent | 555 | 76 | 401 | 134 | 1,166 |
| Kampenhout | 4,355 | 565 | 745 | 777 | 6,442 |
| Kortenberg | 3,294 | 1,085 | 486 | 1,415 | 6,280 |
| Kraainem | 7,872 | 3,405 | 48 | 0 | 11,325 |
| Machelen | 2,780 | 2,801 | 2,705 | 6,515 | 14,801 |
| Rotselaar | 580 | 0 | 0 | 0 | 580 |
| Schaarbeek | 74,791 | 0 | 0 | 0 | 74,791 |
| Sint-Jans-Molenbeek | 5,603 | 0 | 0 | 0 | 5,603 |
| Sint-Lambrechts-Woluwe | 43,853 | 0 | 0 | 0 | 43,853 |
| Sint-Pieters-Woluwe | 3,299 | 2,342 | 0 | 0 | 5,641 |
| Steenokkerzeel | 2,540 | 1,976 | 2,982 | 2,318 | 9,816 |
| Vilvoorde | 18,181 | 400 | 0 | 0 | 18,581 |
| Wemmel | 385 | 0 | 0 | 0 | 385 |
| Wezembeek-Oppem | 922 | 2,769 | 42 | 0 | 3,733 |
| Zaventem | 23,842 | 2,198 | 2,270 | 1,857 | 30,167 |
| Zemst | 97 | 0 | 0 | 0 | 97 |
| Total | 280,736 | 32,604 | 14,980 | 15,032 | 343,352 |

Table 26: Number of residents per Freq.70,night contour zone and municipality 2025

| Number of inhabitants | Freq.70,night - contour zones (night 23h-07h) | | | | |
|------------------------|---|---------------|---------------|--------------|----------------|
| | 1-5 | 5-10 | 10-20 | >20 | Totaal |
| Boortmeerbeek | 1,984 | 0 | 0 | 0 | 1,984 |
| Brussel | 15,916 | 4,903 | 3,760 | 0 | 24,579 |
| Evere | 37,944 | 0 | 0 | 0 | 37,944 |
| Grimbergen | 18,990 | 295 | 0 | 0 | 19,285 |
| Haacht | 1,224 | 388 | 12 | 0 | 1,624 |
| Herent | 239 | 527 | 203 | 0 | 969 |
| Kampenhout | 3,862 | 607 | 1,131 | 674 | 6,274 |
| Kortenberg | 1,742 | 787 | 1,471 | 0 | 4,000 |
| Kraainem | 5,422 | 66 | 0 | 0 | 5,488 |
| Leuven | 324 | 0 | 0 | 0 | 324 |
| Machelen | 4,237 | 3,507 | 5,180 | 2,611 | 15,535 |
| Mechelen | 9 | 0 | 0 | 0 | 9 |
| Meise | 725 | 0 | 0 | 0 | 725 |
| Rotselaar | 3,616 | 0 | 0 | 0 | 3,616 |
| Schaarbeek | 32,199 | 0 | 0 | 0 | 32,199 |
| Sint-Lambrechts-Woluwe | 1,027 | 0 | 0 | 0 | 1,027 |
| Sint-Pieters-Woluwe | 6,225 | 0 | 0 | 0 | 6,225 |
| Steenokkerzeel | 2,638 | 2,254 | 3,176 | 2,087 | 10,155 |
| Tervuren | 3,985 | 0 | 0 | 0 | 3,985 |
| Vilvoorde | 13,223 | 4,529 | 0 | 0 | 17,752 |
| Wemmel | 914 | 0 | 0 | 0 | 914 |
| Wezembeek-Oppem | 5,921 | 611 | 0 | 0 | 6,532 |
| Zaventem | 15,699 | 9,030 | 3,909 | 743 | 29,381 |
| Zemst | 123 | 0 | 0 | 0 | 123 |
| Total | 178,188 | 27,504 | 18,842 | 6,115 | 230,649 |

Table 27: Number of residents per Freq.60,day contour zone and municipality 2025

| Number of inhabitants | Freq.60,day - contour zones (day 07h-19h) | | | | |
|------------------------|---|---------------|--------------|----------|----------------|
| | 50-100 | 100-150 | 150-200 | >200 | Totaal |
| Aarschot | 6 | 0 | 0 | 0 | 6 |
| Brussel | 18,172 | 7,534 | 0 | 0 | 25,706 |
| Evere | 30,832 | 0 | 0 | 0 | 30,832 |
| Grimbergen | 1,188 | 0 | 0 | 0 | 1,188 |
| Haacht | 3,331 | 322 | 0 | 0 | 3,653 |
| Herent | 893 | 992 | 0 | 0 | 1,885 |
| Kampenhout | 5,440 | 22 | 0 | 0 | 5,462 |
| Kortenbergh | 732 | 3,888 | 0 | 0 | 4,620 |
| Kraainem | 12,456 | 0 | 0 | 0 | 12,456 |
| Leuven | 1,107 | 307 | 0 | 0 | 1,414 |
| Machelen | 3,302 | 11,385 | 1,912 | 0 | 16,599 |
| Rotselaar | 9,439 | 245 | 0 | 0 | 9,684 |
| Schaarbeek | 1,744 | 0 | 0 | 0 | 1,744 |
| Sint-Lambrechts-Woluwe | 16,655 | 0 | 0 | 0 | 16,655 |
| Sint-Pieters-Woluwe | 12,593 | 0 | 0 | 0 | 12,593 |
| Steenokkerzeel | 1,461 | 4,923 | 2,583 | 0 | 8,967 |
| Tervuren | 8,622 | 0 | 0 | 0 | 8,622 |
| Vilvoorde | 4,885 | 0 | 0 | 0 | 4,885 |
| Wezembeek-Oppeem | 12,313 | 0 | 0 | 0 | 12,313 |
| Zaventem | 14,552 | 3,886 | 4,728 | 0 | 23,166 |
| Total | 159,723 | 33,504 | 9,223 | 0 | 202,450 |

Table 28: Number of residents per Freq.60, evening contour zone and municipality 2025

| Number of inhabitants | Freq.60, evening - contour zones (eve. 19h-23h) | | | | |
|------------------------|---|---------------|---------------|---------------|----------------|
| | 10-15 | 15-20 | 20-30 | >30 | Totaal |
| Aarschot | 680 | 16 | 0 | 0 | 696 |
| Begijnendijk | 367 | 0 | 0 | 0 | 367 |
| Brussel | 22,479 | 6,794 | 2,283 | 7,274 | 38,830 |
| Evere | 4,841 | 23,630 | 17,301 | 0 | 45,772 |
| Grimbergen | 19,080 | 1,793 | 0 | 0 | 20,873 |
| Haacht | 1,216 | 493 | 2,884 | 326 | 4,919 |
| Herent | 421 | 215 | 609 | 1,020 | 2,265 |
| Kampenhout | 747 | 511 | 3,881 | 1,235 | 6,374 |
| Kortenberg | 238 | 240 | 417 | 3,873 | 4,768 |
| Kraainem | 66 | 4,122 | 9,427 | 317 | 13,932 |
| Leuven | 126 | 102 | 900 | 387 | 1,515 |
| Machelen | 38 | 291 | 1,791 | 14,648 | 16,768 |
| Meise | 4 | 0 | 0 | 0 | 4 |
| Overijse | 233 | 0 | 0 | 0 | 233 |
| Rotselaar | 1,839 | 4,594 | 5,178 | 325 | 11,936 |
| Schaarbeek | 27,569 | 3,980 | 0 | 0 | 31,549 |
| Sint-Lambrechts-Woluwe | 12,554 | 15,674 | 9,787 | 0 | 38,015 |
| Sint-Pieters-Woluwe | 4,145 | 5,154 | 10,416 | 166 | 19,881 |
| Steenokkerzeel | 1,130 | 922 | 601 | 8,090 | 10,743 |
| Tervuren | 2,546 | 2,885 | 6,886 | 0 | 12,317 |
| Tremelo | 544 | 0 | 0 | 0 | 544 |
| Vilvoorde | 15,389 | 3,710 | 615 | 0 | 19,714 |
| Wemmel | 3,118 | 0 | 0 | 0 | 3,118 |
| Wezembeek-Oppem | 1,252 | 2,783 | 10,011 | 198 | 14,244 |
| Zaventem | 1,429 | 8,921 | 6,602 | 9,154 | 26,106 |
| Total | 122,051 | 86,830 | 89,589 | 47,013 | 345,483 |

Table 29: Number of residents per Freq.60,night contour zone and municipality 2025

| Number of inhabitants | Freq.60,night - contour zones (night 23h-07h) | | | | |
|-----------------------|---|---------------|---------------|---------------|----------------|
| | 10-15 | 15-20 | 20-30 | >30 | Totaal |
| Begijnendijk | 420 | 0 | 0 | 0 | 420 |
| Brussel | 27,292 | 5,608 | 6,380 | 0 | 39,280 |
| Evere | 14,269 | 97 | 0 | 0 | 14,366 |
| Grimbergen | 14,965 | 0 | 0 | 0 | 14,965 |
| Haacht | 1,500 | 586 | 2,530 | 0 | 4,616 |
| Herent | 1,788 | 142 | 180 | 0 | 2,110 |
| Kampenhout | 1,069 | 926 | 4,830 | 7 | 6,832 |
| Kortenbergh | 4,272 | 147 | 20 | 0 | 4,439 |
| Kraainem | 8,522 | 0 | 0 | 0 | 8,522 |
| Leuven | 1,433 | 0 | 0 | 0 | 1,433 |
| Machelen | 668 | 2,922 | 13,178 | 0 | 16,768 |
| Rotselaar | 7,274 | 3,354 | 2 | 0 | 10,630 |
| Sint-Pieters-Woluwe | 5,086 | 0 | 0 | 0 | 5,086 |
| Steenokkerzeel | 841 | 1,418 | 3,137 | 5,550 | 10,946 |
| Tervuren | 218 | 0 | 0 | 0 | 218 |
| Tremelo | 734 | 49 | 0 | 0 | 783 |
| Vilvoorde | 13,630 | 0 | 0 | 0 | 13,630 |
| Wemmel | 84 | 0 | 0 | 0 | 84 |
| Wezembeek-Oppem | 8,420 | 0 | 0 | 0 | 8,420 |
| Zaventem | 4,281 | 2,730 | 4,824 | 6,220 | 18,055 |
| Total | 116,766 | 17,979 | 35,081 | 11,777 | 181,603 |

C.3 Number of people who are severely annoyed and who experience severe sleep disturbance per contour zone and per municipality based on WHO guideline

Table 30: Number of people who are severely annoyed in L_{den} contour zone per municipality (2025) based on housing stock as at 01-01-2026 and the WHO guideline

| Municipality | Lden - contour zones in dB(A) (d. 07h-19h, av. 19h-23h, n. 23h-07h) | | | | | | | Totaal |
|------------------------|---|---------------|---------------|--------------|------------|------------|----------|----------------|
| | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Aarschot | 501 | 13 | 0 | 0 | 0 | 0 | 0 | 514 |
| Anderlecht | 9,348 | 0 | 0 | 0 | 0 | 0 | 0 | 9,348 |
| Asse | 1,946 | 0 | 0 | 0 | 0 | 0 | 0 | 1,946 |
| Begijnendijk | 646 | 51 | 0 | 0 | 0 | 0 | 0 | 697 |
| Bertem | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 29 |
| Bonheiden | 404 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Boortmeerbeek | 530 | 105 | 0 | 0 | 0 | 0 | 0 | 635 |
| Brussel | 12,133 | 13,140 | 2,253 | 1,841 | 0 | 0 | 0 | 29,367 |
| Dilbeek | 4,566 | 0 | 0 | 0 | 0 | 0 | 0 | 4,566 |
| Etterbeek | 413 | 0 | 0 | 0 | 0 | 0 | 0 | 413 |
| Evere | 0 | 7,206 | 4,414 | 0 | 0 | 0 | 0 | 11,620 |
| Ganshoren | 3,325 | 0 | 0 | 0 | 0 | 0 | 0 | 3,325 |
| Grez-Doiceau | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Grimbergen | 1,519 | 5,312 | 0 | 0 | 0 | 0 | 0 | 6,831 |
| Haacht | 421 | 970 | 462 | 0 | 0 | 0 | 0 | 1,853 |
| Herent | 480 | 330 | 326 | 6 | 0 | 0 | 0 | 1,142 |
| Hoelaart | 71 | 6 | 0 | 0 | 0 | 0 | 0 | 77 |
| Holsbeek | 245 | 0 | 0 | 0 | 0 | 0 | 0 | 245 |
| Huldenberg | 929 | 0 | 0 | 0 | 0 | 0 | 0 | 929 |
| Jette | 8,054 | 0 | 0 | 0 | 0 | 0 | 0 | 8,054 |
| Kampenhout | 412 | 1,020 | 1,154 | 349 | 96 | 0 | 0 | 3,031 |
| Koekelberg | 2,727 | 923 | 0 | 0 | 0 | 0 | 0 | 3,650 |
| Kortenberg | 1,141 | 945 | 879 | 370 | 12 | 0 | 0 | 3,347 |
| Kraainem | 24 | 2,289 | 1,136 | 17 | 0 | 0 | 0 | 3,466 |
| La Hulpe | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lennik | 21 | 0 | 0 | 0 | 0 | 0 | 0 | 21 |
| Leuven | 741 | 309 | 91 | 0 | 0 | 0 | 0 | 1,141 |
| Machelen | 0 | 312 | 2,264 | 3,101 | 356 | 0 | 0 | 6,033 |
| Mechelen | 94 | 0 | 0 | 0 | 0 | 0 | 0 | 94 |
| Meise | 733 | 70 | 0 | 0 | 0 | 0 | 0 | 803 |
| Merchtem | 157 | 0 | 0 | 0 | 0 | 0 | 0 | 157 |
| Oudergem | 131 | 0 | 0 | 0 | 0 | 0 | 0 | 131 |
| Overijse | 446 | 11 | 0 | 0 | 0 | 0 | 0 | 457 |
| Rotselaar | 607 | 3,008 | 0 | 0 | 0 | 0 | 0 | 3,615 |
| Schaarbeek | 7,883 | 16,315 | 4 | 0 | 0 | 0 | 0 | 24,202 |
| Sint-Agatha-Berchem | 3,061 | 0 | 0 | 0 | 0 | 0 | 0 | 3,061 |
| Sint-Gillis | 214 | 0 | 0 | 0 | 0 | 0 | 0 | 214 |
| Sint-Jans-Molenbeek | 11,902 | 3,948 | 0 | 0 | 0 | 0 | 0 | 15,850 |
| Sint-Joost-ten-Node | 3,027 | 0 | 0 | 0 | 0 | 0 | 0 | 3,027 |
| Sint-Katelijne-Waver | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Sint-Lambrechts-Woluwe | 3,895 | 7,305 | 0 | 0 | 0 | 0 | 0 | 11,200 |
| Sint-Pieters-Leeuw | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sint-Pieters-Woluwe | 2,470 | 3,258 | 619 | 0 | 0 | 0 | 0 | 6,347 |
| Steenokkerzeel | 185 | 386 | 1,459 | 1,706 | 352 | 102 | 0 | 4,190 |
| Tervuren | 1,812 | 2,208 | 0 | 0 | 0 | 0 | 0 | 4,020 |
| Tremelo | 1,012 | 114 | 0 | 0 | 0 | 0 | 0 | 1,126 |
| Vilvoorde | 2,829 | 4,993 | 971 | 0 | 0 | 0 | 0 | 8,793 |
| Waterloo | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 5 |
| Watermaal-Bosvoorde | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wavre | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wemmel | 954 | 2,379 | 0 | 0 | 0 | 0 | 0 | 3,333 |
| Wezembeek-Oppeem | 0 | 2,561 | 973 | 3 | 0 | 0 | 0 | 3,537 |
| Zaventem | 43 | 4,542 | 3,890 | 1,956 | 5 | 0 | 0 | 10,436 |
| Zemst | 171 | 21 | 0 | 0 | 0 | 0 | 0 | 192 |
| Total | 92,262 | 84,050 | 20,895 | 9,349 | 821 | 102 | 0 | 207,479 |

Table 31: Number of people who are severely annoyed in L_{den} contour zone per municipality (2025) based on housing stock as at 01-01-2022 and the WHO guideline

| Number of severely annoyed people | Lden - contour zones in dB(A) (d. 07h-19h, av. 19h-23h, n. 23h-07h) | | | | | | | Totaal |
|-----------------------------------|---|---------------|---------------|--------------|------------|-----------|----------|----------------|
| | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Aarschot | 485 | 14 | 0 | 0 | 0 | 0 | 0 | 499 |
| Anderlecht | 8,761 | 0 | 0 | 0 | 0 | 0 | 0 | 8,761 |
| Asse | 1,814 | 0 | 0 | 0 | 0 | 0 | 0 | 1,814 |
| Begijnendijk | 637 | 48 | 0 | 0 | 0 | 0 | 0 | 685 |
| Bertem | 27 | 0 | 0 | 0 | 0 | 0 | 0 | 27 |
| Bonheiden | 385 | 0 | 0 | 0 | 0 | 0 | 0 | 385 |
| Boortmeerbeek | 502 | 100 | 0 | 0 | 0 | 0 | 0 | 602 |
| Brussel | 11,663 | 12,423 | 2,015 | 1,581 | 0 | 0 | 0 | 27,682 |
| Dilbeek | 4,432 | 0 | 0 | 0 | 0 | 0 | 0 | 4,432 |
| Etterbeek | 446 | 0 | 0 | 0 | 0 | 0 | 0 | 446 |
| Evere | 0 | 6,876 | 4,026 | 0 | 0 | 0 | 0 | 10,902 |
| Ganshoren | 3,254 | 0 | 0 | 0 | 0 | 0 | 0 | 3,254 |
| Grimbergen | 1,469 | 5,055 | 0 | 0 | 0 | 0 | 0 | 6,524 |
| Haacht | 399 | 954 | 460 | 0 | 0 | 0 | 0 | 1,813 |
| Herent | 467 | 331 | 326 | 5 | 0 | 0 | 0 | 1,129 |
| Hoeilaart | 69 | 6 | 0 | 0 | 0 | 0 | 0 | 75 |
| Holsbeek | 239 | 0 | 0 | 0 | 0 | 0 | 0 | 239 |
| Huldenberg | 921 | 0 | 0 | 0 | 0 | 0 | 0 | 921 |
| Jette | 7,798 | 0 | 0 | 0 | 0 | 0 | 0 | 7,798 |
| Kampenhout | 410 | 961 | 1,130 | 351 | 99 | 0 | 0 | 2,951 |
| Koekelberg | 2,496 | 985 | 0 | 0 | 0 | 0 | 0 | 3,481 |
| Kortenberg | 1,093 | 896 | 803 | 375 | 11 | 0 | 0 | 3,178 |
| Kraainem | 13 | 2,296 | 1,120 | 17 | 0 | 0 | 0 | 3,446 |
| Lennik | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Leuven | 725 | 312 | 91 | 0 | 0 | 0 | 0 | 1,128 |
| Machelen | 0 | 316 | 2,068 | 2,953 | 395 | 2 | 0 | 5,734 |
| Mechelen | 87 | 0 | 0 | 0 | 0 | 0 | 0 | 87 |
| Meise | 729 | 73 | 0 | 0 | 0 | 0 | 0 | 802 |
| Merchtem | 149 | 0 | 0 | 0 | 0 | 0 | 0 | 149 |
| Oudergem | 151 | 0 | 0 | 0 | 0 | 0 | 0 | 151 |
| Overijse | 446 | 10 | 0 | 0 | 0 | 0 | 0 | 456 |
| Rotselaar | 598 | 2,885 | 1 | 0 | 0 | 0 | 0 | 3,484 |
| Schaarbeek | 8,006 | 16,489 | 6 | 0 | 0 | 0 | 0 | 24,501 |
| Sint-Agatha-Berchem | 3,018 | 0 | 0 | 0 | 0 | 0 | 0 | 3,018 |
| Sint-Gillis | 208 | 0 | 0 | 0 | 0 | 0 | 0 | 208 |
| Sint-Jans-Molenbeek | 11,686 | 4,121 | 0 | 0 | 0 | 0 | 0 | 15,807 |
| Sint-Joost-ten-Node | 3,014 | 0 | 0 | 0 | 0 | 0 | 0 | 3,014 |
| Sint-Katelijne-Waver | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 4 |
| Sint-Lambrechts-Woluwe | 3,937 | 6,675 | 0 | 0 | 0 | 0 | 0 | 10,612 |
| Sint-Pieters-Leeuw | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sint-Pieters-Woluwe | 2,415 | 3,198 | 607 | 0 | 0 | 0 | 0 | 6,220 |
| Steenokkerzeel | 172 | 384 | 1,450 | 1,624 | 340 | 89 | 0 | 4,059 |
| Tervuren | 1,798 | 2,151 | 0 | 0 | 0 | 0 | 0 | 3,949 |
| Tremelo | 987 | 119 | 0 | 0 | 0 | 0 | 0 | 1,106 |
| Vilvoorde | 2,689 | 4,810 | 884 | 0 | 0 | 0 | 0 | 8,383 |
| Watermaal-Bosvoorde | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wemmel | 916 | 2,174 | 0 | 0 | 0 | 0 | 0 | 3,090 |
| Wezembeek-Oppem | 0 | 2,466 | 950 | 3 | 0 | 0 | 0 | 3,419 |
| Zaventem | 33 | 4,293 | 3,697 | 1,880 | 3 | 0 | 0 | 9,906 |
| Zemst | 171 | 21 | 0 | 0 | 0 | 0 | 0 | 192 |
| Total | 89,739 | 81,442 | 19,634 | 8,789 | 848 | 91 | 0 | 200,543 |

Table 32: Number of people who experience severe sleep disturbance in L_{night} contour zone per municipality (2025) based on housing stock as at 01-01-2026 and the WHO guideline

| Number of severely sleep deprived persons | L _{night} - contour zones in dB(A) (n. 23h-07h) | | | | | | | Totaal |
|---|--|---------------|--------------|--------------|------------|----------|----------|----------------|
| | Municipality | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | |
| Aarschot | 188 | 0 | 0 | 0 | 0 | 0 | 0 | 188 |
| Anderlecht | 632 | 0 | 0 | 0 | 0 | 0 | 0 | 632 |
| Asse | 1,219 | 0 | 0 | 0 | 0 | 0 | 0 | 1,219 |
| Begijnendijk | 354 | 0 | 0 | 0 | 0 | 0 | 0 | 354 |
| Bonheiden | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 9 |
| Boortmeerbeek | 404 | 0 | 0 | 0 | 0 | 0 | 0 | 404 |
| Brussel | 12,526 | 2,599 | 1,518 | 0 | 0 | 0 | 0 | 16,643 |
| Dilbeek | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Evere | 2,788 | 4,251 | 0 | 0 | 0 | 0 | 0 | 7,039 |
| Ganshoren | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 20 |
| Grimbergen | 1,676 | 2,314 | 0 | 0 | 0 | 0 | 0 | 3,990 |
| Haacht | 401 | 705 | 20 | 0 | 0 | 0 | 0 | 1,126 |
| Herent | 179 | 233 | 94 | 0 | 0 | 0 | 0 | 506 |
| Hoeilaart | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Holsbeek | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Huldenberg | 358 | 0 | 0 | 0 | 0 | 0 | 0 | 358 |
| Jette | 2,504 | 0 | 0 | 0 | 0 | 0 | 0 | 2,504 |
| Kamphenhout | 503 | 847 | 407 | 116 | 41 | 0 | 0 | 1,914 |
| Koekelberg | 1,940 | 0 | 0 | 0 | 0 | 0 | 0 | 1,940 |
| Kortenberg | 923 | 479 | 330 | 37 | 0 | 0 | 0 | 1,769 |
| Kraainem | 1,093 | 1,006 | 68 | 0 | 0 | 0 | 0 | 2,167 |
| Leuven | 287 | 167 | 0 | 0 | 0 | 0 | 0 | 454 |
| Machelen | 0 | 877 | 2,091 | 711 | 5 | 0 | 0 | 3,684 |
| Mechelen | 56 | 0 | 0 | 0 | 0 | 0 | 0 | 56 |
| Meise | 142 | 0 | 0 | 0 | 0 | 0 | 0 | 142 |
| Oudergem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Overijse | 121 | 0 | 0 | 0 | 0 | 0 | 0 | 121 |
| Rotselaar | 1,688 | 750 | 0 | 0 | 0 | 0 | 0 | 2,438 |
| Schaarbeek | 10,722 | 2,202 | 0 | 0 | 0 | 0 | 0 | 12,924 |
| Sint-Jans-Molenbeek | 10,596 | 0 | 0 | 0 | 0 | 0 | 0 | 10,596 |
| Sint-Joost-ten-Node | 555 | 0 | 0 | 0 | 0 | 0 | 0 | 555 |
| Sint-Lambrechts-Woluwe | 4,897 | 0 | 0 | 0 | 0 | 0 | 0 | 4,897 |
| Sint-Pieters-Woluwe | 1,737 | 948 | 0 | 0 | 0 | 0 | 0 | 2,685 |
| Steenokkerzeel | 227 | 407 | 1,279 | 600 | 132 | 7 | 0 | 2,652 |
| Tervuren | 2,682 | 78 | 0 | 0 | 0 | 0 | 0 | 2,760 |
| Tremelo | 548 | 0 | 0 | 0 | 0 | 0 | 0 | 548 |
| Vilvoorde | 3,108 | 2,374 | 0 | 0 | 0 | 0 | 0 | 5,482 |
| Watermaal-Bosvoorde | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wemmel | 2,378 | 0 | 0 | 0 | 0 | 0 | 0 | 2,378 |
| Wezembeek-Oppem | 975 | 1,121 | 221 | 0 | 0 | 0 | 0 | 2,317 |
| Zaventem | 1,190 | 3,094 | 2,325 | 161 | 0 | 0 | 0 | 6,770 |
| Zemst | 26 | 11 | 0 | 0 | 0 | 0 | 0 | 37 |
| Total | 69,672 | 24,463 | 8,353 | 1,625 | 178 | 7 | 0 | 104,298 |

Table 33: Number of people who experience severe sleep disturbance in L_{night} contour zone per municipality (2025) based on housing stock as at 01-01-2022 and the WHO guideline

| Municipality | L _{night} - contour zones in dB(A) (n. 23h-07h) | | | | | | | Totaal |
|------------------------|--|---------------|--------------|--------------|------------|----------|----------|----------------|
| | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | >70 | |
| Aarschot | 184 | 0 | 0 | 0 | 0 | 0 | 0 | 184 |
| Anderlecht | 575 | 0 | 0 | 0 | 0 | 0 | 0 | 575 |
| Asse | 1,141 | 0 | 0 | 0 | 0 | 0 | 0 | 1,141 |
| Begijnendijk | 343 | 0 | 0 | 0 | 0 | 0 | 0 | 343 |
| Bonheiden | 11 | 0 | 0 | 0 | 0 | 0 | 0 | 11 |
| Boortmeerbeek | 390 | 0 | 0 | 0 | 0 | 0 | 0 | 390 |
| Brussel | 11,921 | 2,403 | 1,304 | 0 | 0 | 0 | 0 | 15,628 |
| Dilbeek | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Evere | 2,487 | 4,120 | 0 | 0 | 0 | 0 | 0 | 6,607 |
| Ganshoren | 25 | 0 | 0 | 0 | 0 | 0 | 0 | 25 |
| Grimbergen | 1,633 | 2,157 | 0 | 0 | 0 | 0 | 0 | 3,790 |
| Haacht | 393 | 699 | 19 | 0 | 0 | 0 | 0 | 1,111 |
| Herent | 179 | 234 | 93 | 0 | 0 | 0 | 0 | 506 |
| Hoeilaart | 19 | 0 | 0 | 0 | 0 | 0 | 0 | 19 |
| Holsbeek | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Huldenberg | 355 | 0 | 0 | 0 | 0 | 0 | 0 | 355 |
| Jette | 2,404 | 0 | 0 | 0 | 0 | 0 | 0 | 2,404 |
| Kampenhout | 490 | 805 | 409 | 117 | 43 | 0 | 0 | 1,864 |
| Koekelberg | 1,856 | 0 | 0 | 0 | 0 | 0 | 0 | 1,856 |
| Kortenberg | 885 | 448 | 317 | 37 | 0 | 0 | 0 | 1,687 |
| Kraainem | 1,087 | 1,000 | 67 | 0 | 0 | 0 | 0 | 2,154 |
| Leuven | 282 | 170 | 0 | 0 | 0 | 0 | 0 | 452 |
| Machelen | 0 | 820 | 1,939 | 736 | 5 | 0 | 0 | 3,500 |
| Mechelen | 52 | 0 | 0 | 0 | 0 | 0 | 0 | 52 |
| Meise | 150 | 0 | 0 | 0 | 0 | 0 | 0 | 150 |
| Oudergem | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Overijse | 118 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| Rotselaar | 1,633 | 717 | 0 | 0 | 0 | 0 | 0 | 2,350 |
| Schaarbeek | 10,789 | 2,269 | 0 | 0 | 0 | 0 | 0 | 13,058 |
| Sint-Jans-Molenbeek | 10,538 | 0 | 0 | 0 | 0 | 0 | 0 | 10,538 |
| Sint-Joost-ten-Node | 547 | 0 | 0 | 0 | 0 | 0 | 0 | 547 |
| Sint-Lambrechts-Woluwe | 4,579 | 0 | 0 | 0 | 0 | 0 | 0 | 4,579 |
| Sint-Pieters-Woluwe | 1,716 | 936 | 0 | 0 | 0 | 0 | 0 | 2,652 |
| Steenokkerzeel | 222 | 417 | 1,229 | 572 | 123 | 5 | 0 | 2,568 |
| Tervuren | 2,629 | 78 | 0 | 0 | 0 | 0 | 0 | 2,707 |
| Tremelo | 543 | 0 | 0 | 0 | 0 | 0 | 0 | 543 |
| Vilvoorde | 2,982 | 2,236 | 8 | 0 | 0 | 0 | 0 | 5,226 |
| Watermaal-Bosvoorde | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Wemmel | 2,205 | 0 | 0 | 0 | 0 | 0 | 0 | 2,205 |
| Wezembeek-Oppem | 933 | 1,088 | 218 | 0 | 0 | 0 | 0 | 2,239 |
| Zaventem | 1,150 | 2,916 | 2,197 | 161 | 0 | 0 | 0 | 6,424 |
| Zemst | 28 | 11 | 0 | 0 | 0 | 0 | 0 | 39 |
| Total | 67,475 | 23,524 | 7,800 | 1,623 | 171 | 5 | 0 | 100,598 |

C.4 Number of people who are potentially seriously annoyed per contour zone and per municipality based on VLAREM II, chapter 5.57

Table 34: Number of people who are potentially seriously annoyed in L_{den} contour zone per municipality (2025) based on housing stock as at 01-01-2026 and VLAREM II, chapter 5.57

| Municipality | Lden - contour zones in dB(A) (d. 07h-19h, ev. 19h-23h, n. 23h-07h) | | | | | Totaal |
|---------------------|---|--------------|------------|-----------|----------|---------------|
| | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Brussel | 975 | 933 | 0 | 0 | 0 | 1,908 |
| Evere | 1,788 | 0 | 0 | 0 | 0 | 1,788 |
| Haacht | 188 | 0 | 0 | 0 | 0 | 188 |
| Herent | 142 | 3 | 0 | 0 | 0 | 145 |
| Kampenhout | 492 | 182 | 59 | 0 | 0 | 733 |
| Kortenberg | 382 | 192 | 7 | 0 | 0 | 581 |
| Kraainem | 480 | 8 | 0 | 0 | 0 | 488 |
| Leuven | 36 | 0 | 0 | 0 | 0 | 36 |
| Machelen | 1,001 | 1,660 | 213 | 0 | 0 | 2,874 |
| Schaarbeek | 2 | 0 | 0 | 0 | 0 | 2 |
| Sint-Pieters-Woluwe | 246 | 0 | 0 | 0 | 0 | 246 |
| Steenokkerzeel | 656 | 897 | 216 | 70 | 0 | 1,839 |
| Vilvoorde | 380 | 0 | 0 | 0 | 0 | 380 |
| Wezembeek-Oppem | 419 | 1 | 0 | 0 | 0 | 420 |
| Zaventem | 1,671 | 1,003 | 3 | 0 | 0 | 2,677 |
| Total | 8,858 | 4,879 | 498 | 70 | 0 | 14,305 |

Table 35: Number of people who are potentially seriously annoyed in L_{den} contour zone per municipality (2025) based on housing stock as at 01-01-2022 and VLAREM II, chapter 5.57

| Municipality | Lden - contour zones in dB(A) (d. 07h-19h, ev. 19h-23h, n. 23h-07h) | | | | | Totaal |
|---------------------|---|--------------|------------|-----------|----------|---------------|
| | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Brussel | 872 | 799 | 0 | 0 | 0 | 1,671 |
| Evere | 1,632 | 0 | 0 | 0 | 0 | 1,632 |
| Haacht | 188 | 0 | 0 | 0 | 0 | 188 |
| Herent | 142 | 3 | 0 | 0 | 0 | 145 |
| Kampenhout | 483 | 183 | 61 | 0 | 0 | 727 |
| Kortenberg | 349 | 195 | 7 | 0 | 0 | 551 |
| Kraainem | 474 | 8 | 0 | 0 | 0 | 482 |
| Leuven | 36 | 0 | 0 | 0 | 0 | 36 |
| Machelen | 914 | 1,581 | 237 | 1 | 0 | 2,733 |
| Schaarbeek | 2 | 0 | 0 | 0 | 0 | 2 |
| Sint-Pieters-Woluwe | 241 | 0 | 0 | 0 | 0 | 241 |
| Steenokkerzeel | 651 | 853 | 208 | 61 | 0 | 1,773 |
| Vilvoorde | 347 | 0 | 0 | 0 | 0 | 347 |
| Wezembeek-Oppem | 410 | 1 | 0 | 0 | 0 | 411 |
| Zaventem | 1,586 | 964 | 2 | 0 | 0 | 2,552 |
| Total | 8,327 | 4,587 | 515 | 62 | 0 | 13,491 |

Appendix D.

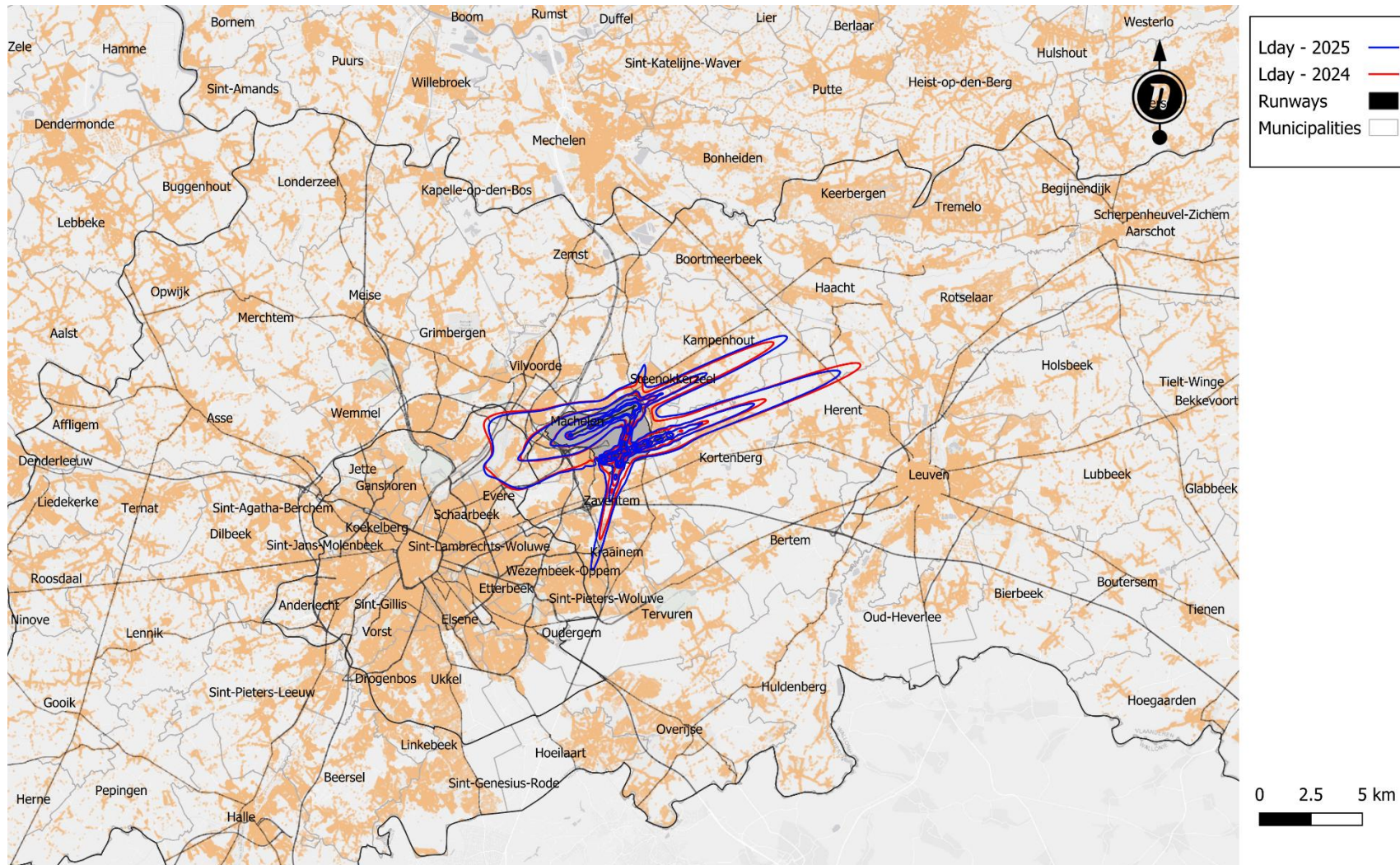
Noise contour maps: evolution 2024-2025

In this Annex, the noise maps are available in A4 format.

- L_{day} noise contours for 2024 and 2025 against population map for 2025
 - L_{evening} noise contours for 2024 and 2025 against population map for 2025
 - L_{night} noise contours for 2024 and 2025 against population map for 2025
 - L_{den} noise contours for 2024 and 2025 against population map for 2025
 - Freq.70,day noise contours for 2024 and 2025 against population map for 2025
 - Freq.70,evening noise contours for 2024 and 2025 against population map for 2025
 - Freq.70,night noise contours for 2024 and 2025 against population map for 2025
 - Freq.60,day noise contours for 2024 and 2025 against population map for 2025
 - Freq.60,evening noise contours for 2024 and 2025 against population map for 2025
 - Freq.60,night noise contours for 2024 and 2025 against population map for 2025
-
- L_{day} noise contours for 2024 and 2025 against NGI topographic map
 - L_{evening} noise contours for 2024 and 2025 against NGI topographic map
 - L_{night} noise contours for 2024 and 2025 against NGI topographic map
 - L_{den} noise contours for 2024 and 2025 against NGI topographic map
 - Freq.70,day noise contours for 2024 and 2025 against NGI topographical map
 - Freq.70,evening noise contours for 2024 and 2025 against NGI topographic map
 - Freq.70,night noise contours for 2024 and 2025 against NGI topographical map
 - Freq.60,day noise contours for 2024 and 2025 against NGI topographical map
 - Freq.60,evening noise contours for 2024 and 2025 against NGI topographic map
 - Freq.60,night noise contours for 2024 and 2025 against NGI topographical map

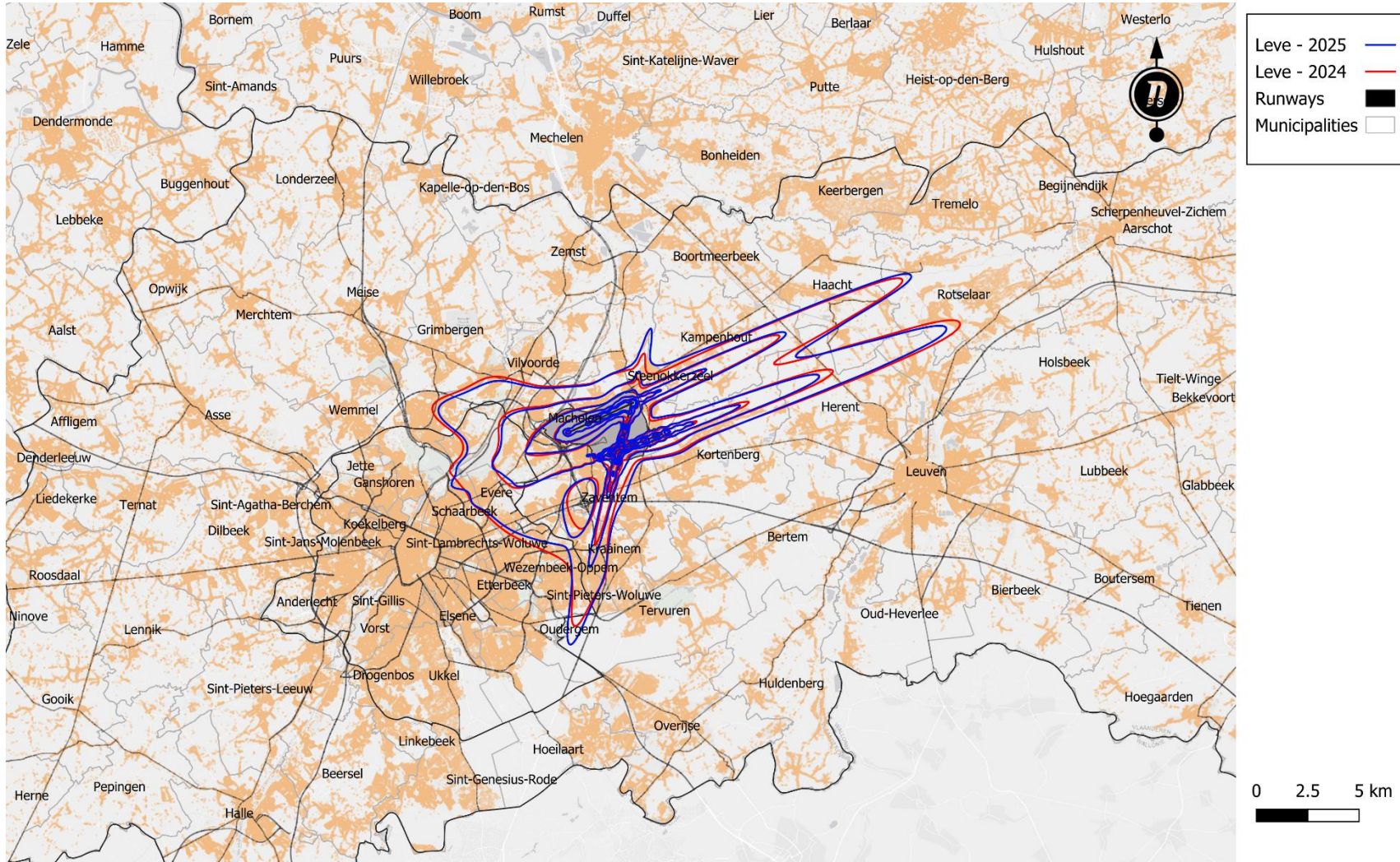
Evolution of L_{day} (07:00 to 19:00) noise contours against 2025 population map

This map displays the contours for 2024 and 2025 where, between 07:00 and 19:00, the noise impact by air traffic is 55, 60, 65, 70 and 75 dB(a) on average. The values ascend inwards: the outermost contour corresponds to 55 dB(A) etc.



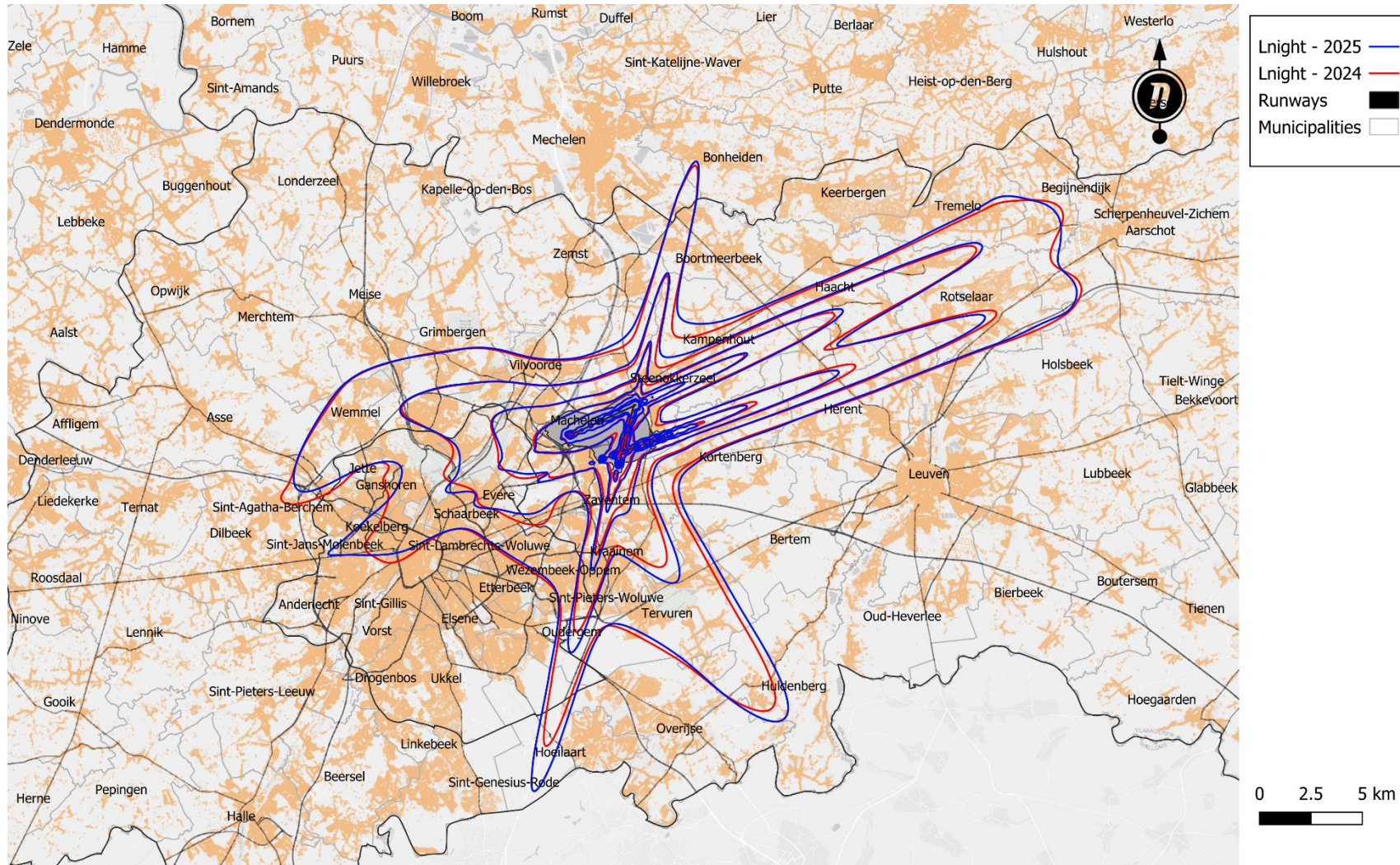
Evolution of Levening (19:00 to 23:00) noise contours against 2025 population map

This map displays the contours for 2024 and 2025 where, between 19:00 and 23:00, the noise impact by air traffic is 50, 55, 60, 65, 70 and 75 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 50 dB(A) etc.



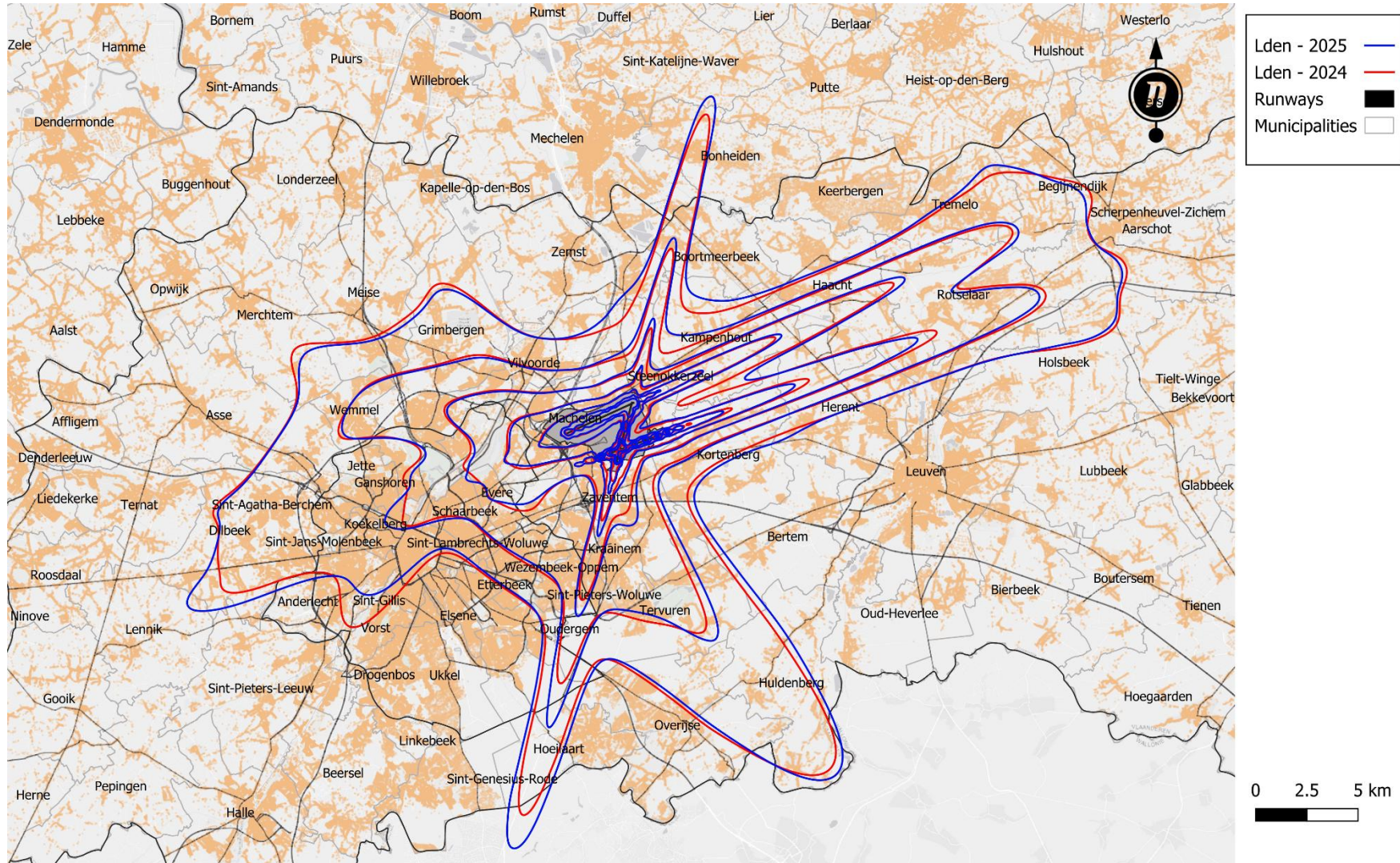
Evolution of L_{night} (23:00 to 7:00) noise contours against 2025 population map

This map displays the contours for 2024 and 2025 where, between 23:00 and 07:00, the noise impact by air traffic is 40, 45, 50, 55, 60, 65 and 70 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 40 dB(A) etc.



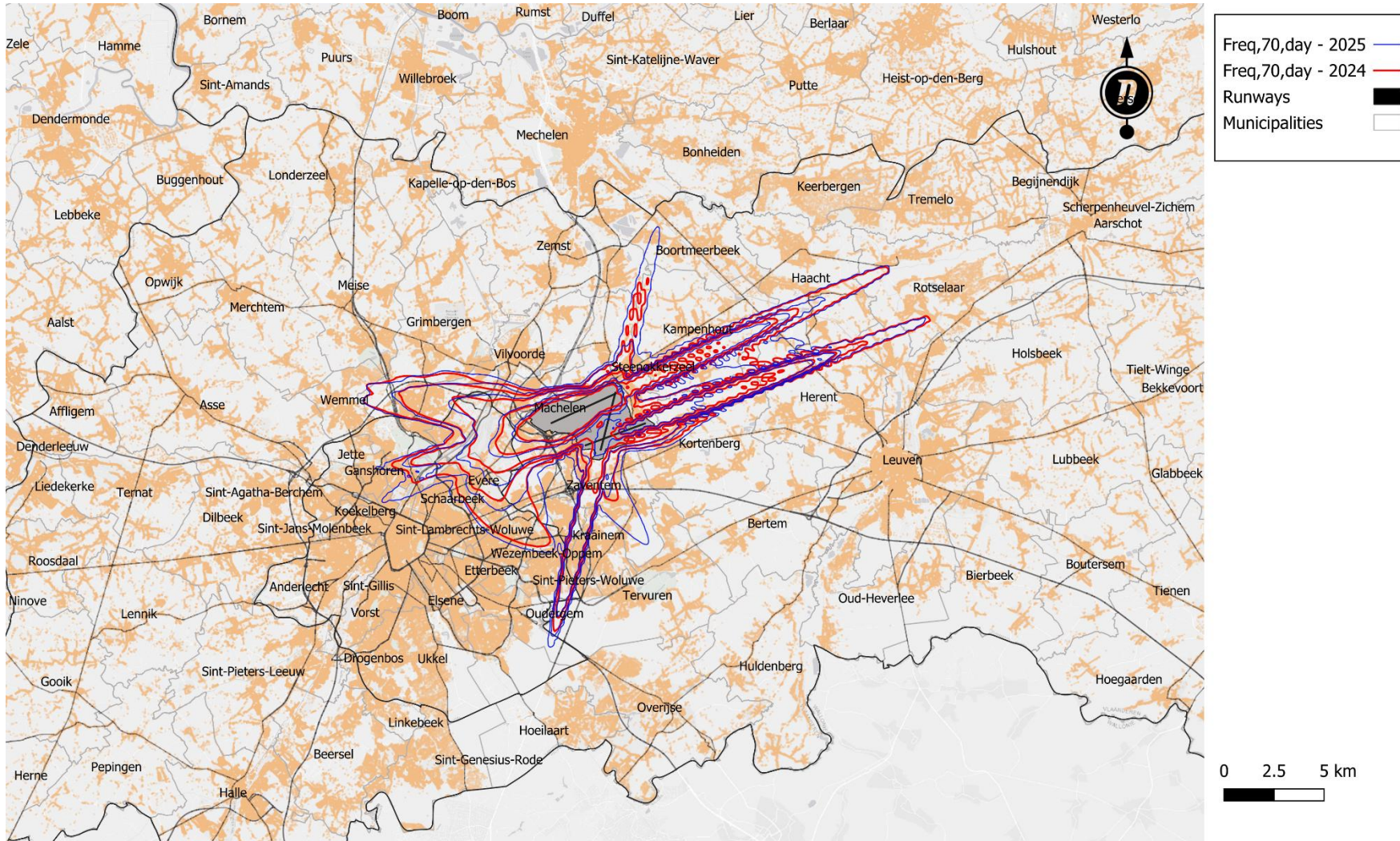
Evolution of L_{den} noise contours against 2025 population map

This map displays the contours for 2024 and 2025 where the noise impact by air traffic is 45, 50, 55, 60, 65, 70 and 75 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 45 dB(A) etc.



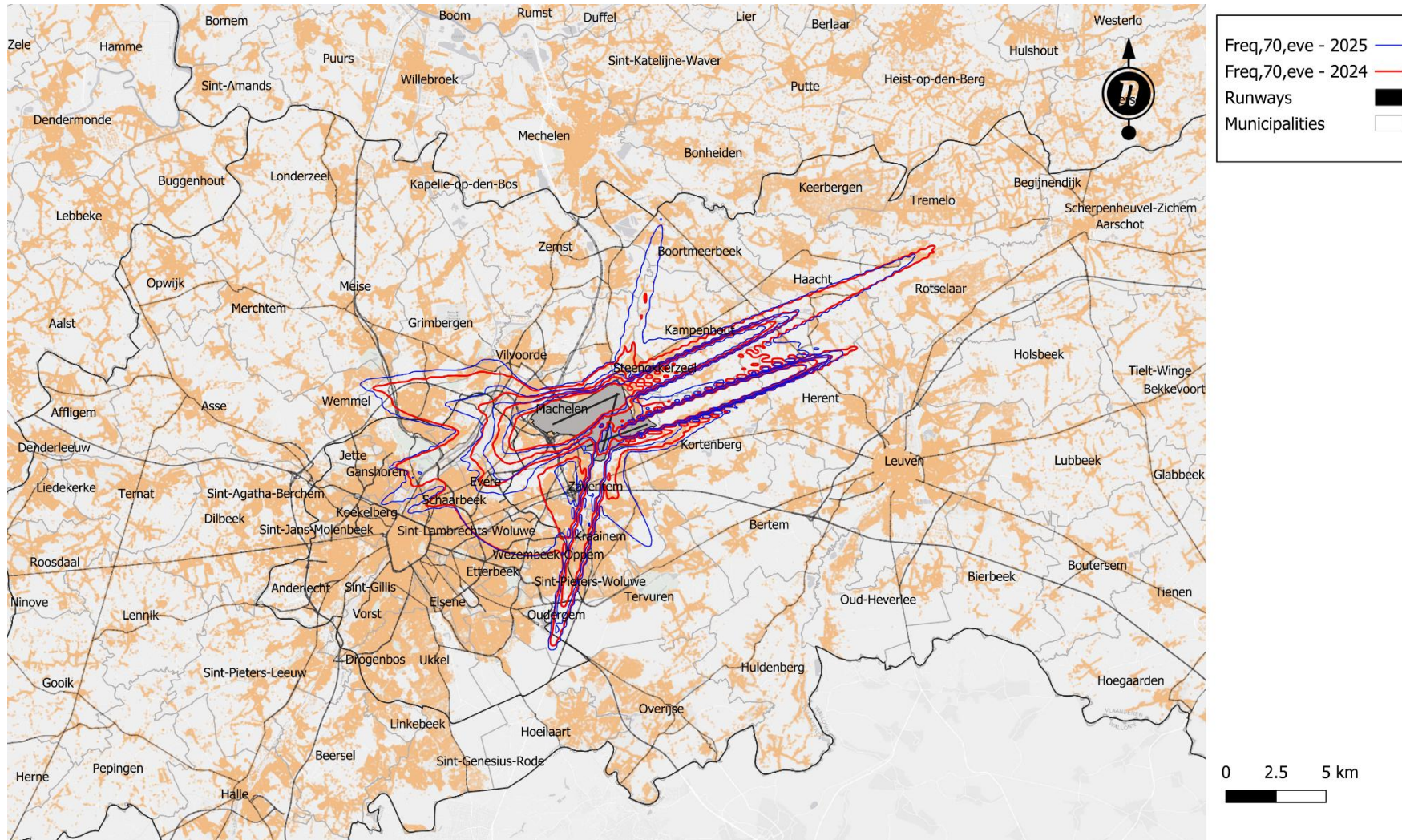
Evolution of Freq.70,day against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 5x, 10x, 20x, 50x and 100x on average per day as aircraft pass between 07:00 and 19:00. The values ascend inwards: the outermost contour corresponds to 5x per day etc.



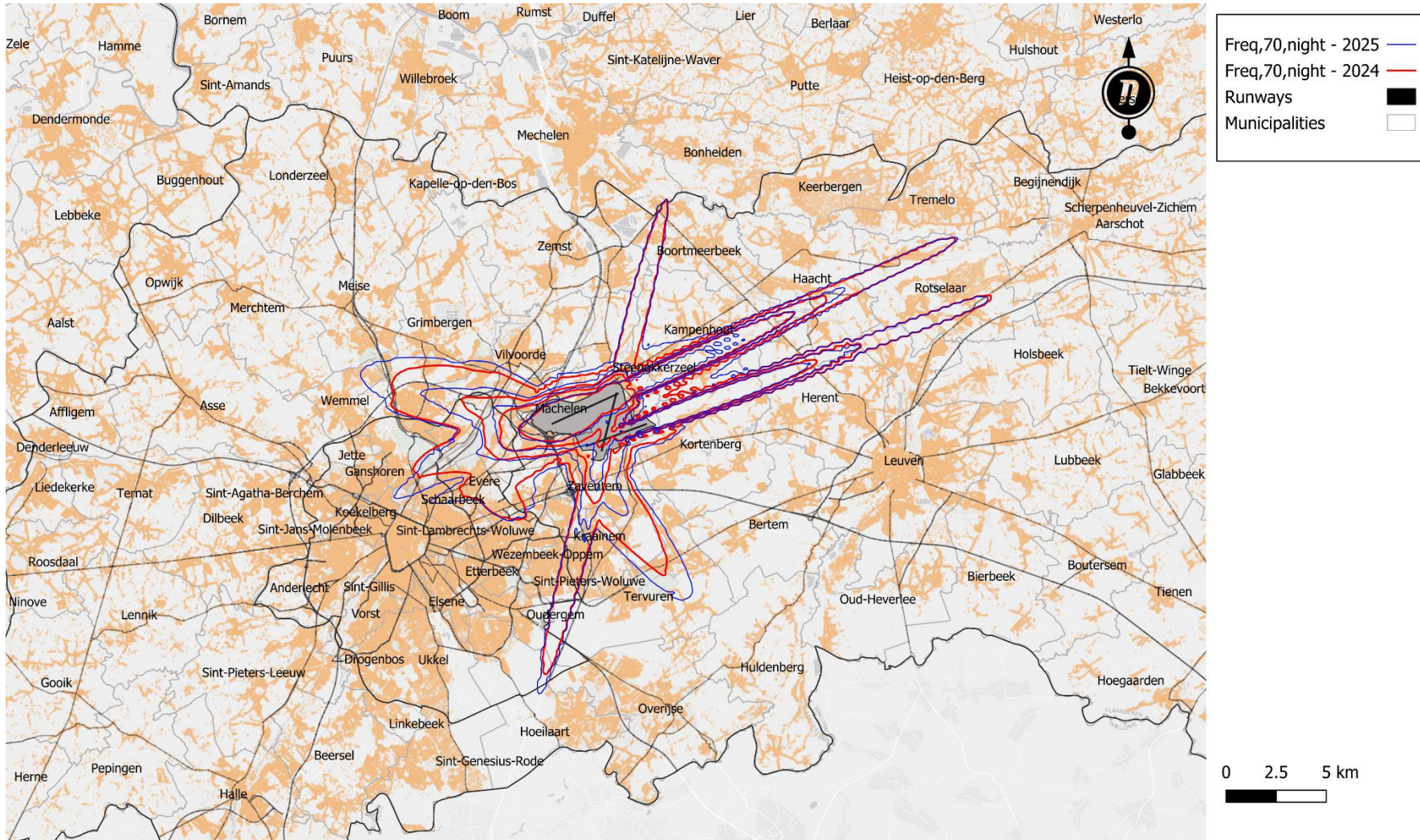
Evolution of Freq.70,evening against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 1x, 5x, 10x and 20x on average per day as aircraft pass between 19:00 and 23:00. The values ascend inwards: the outermost contour corresponds to 1x per evening etc.



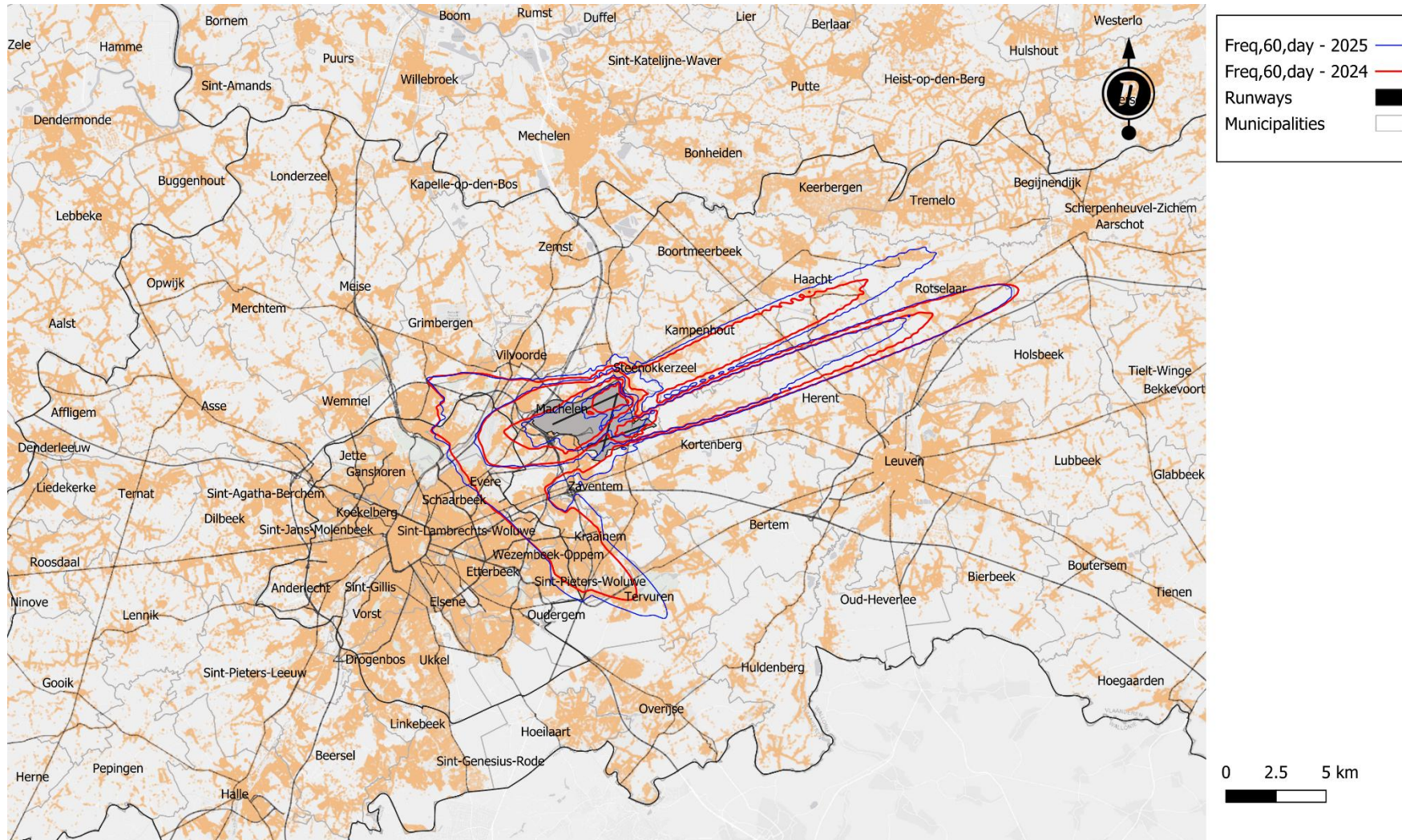
Evolution of Freq.70,night against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 1x, 5x, 10x and 20x on average per day as aircraft pass between 23:00 and 07:00. The values ascend inwards: the outermost contour corresponds to 1x per night etc.



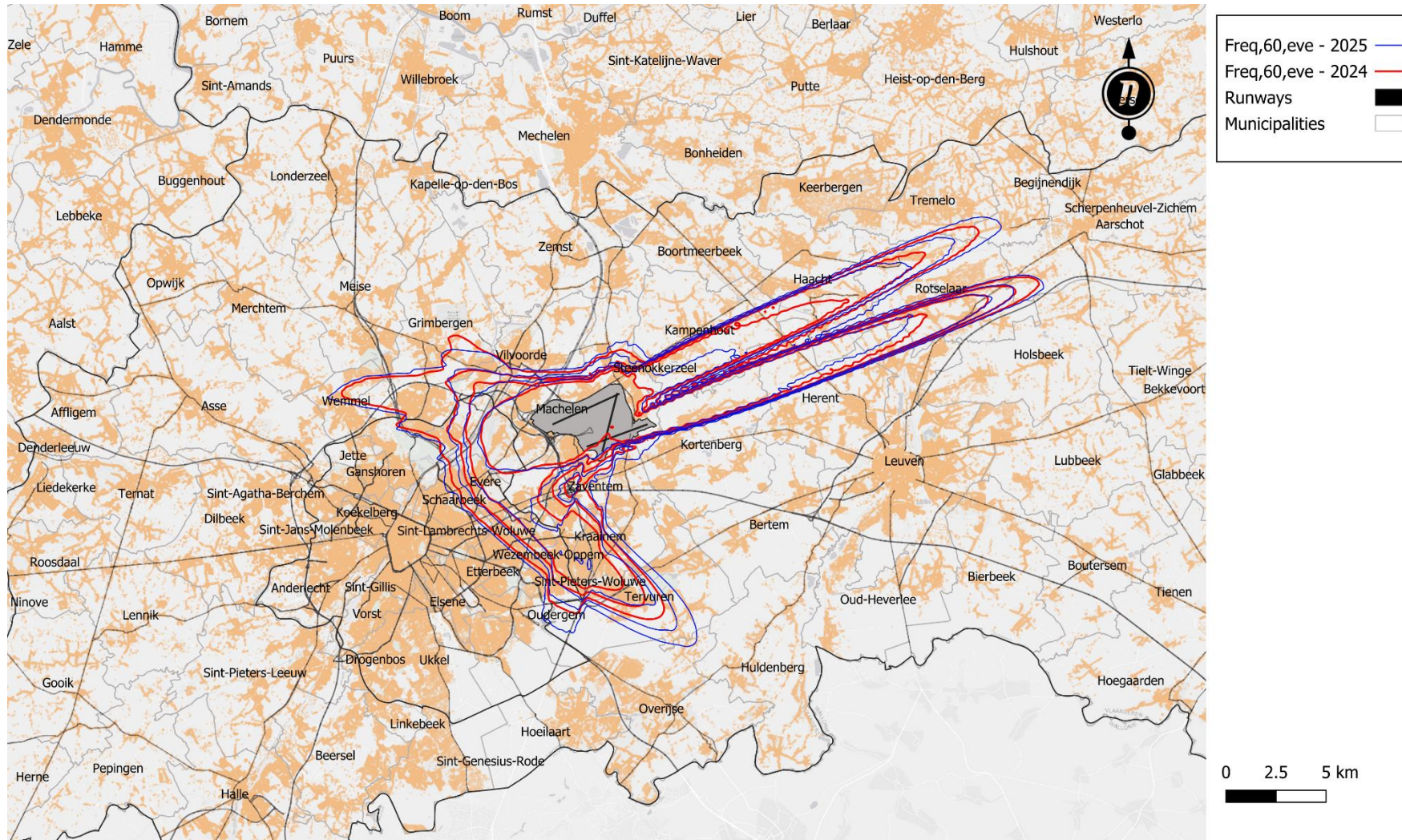
Evolution of Freq.60,day against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 50x, 100x, 150x and 200x on average per day as aircraft pass between 07:00 and 19:00. The values ascend inwards: the outermost contour corresponds to 50x per day etc.



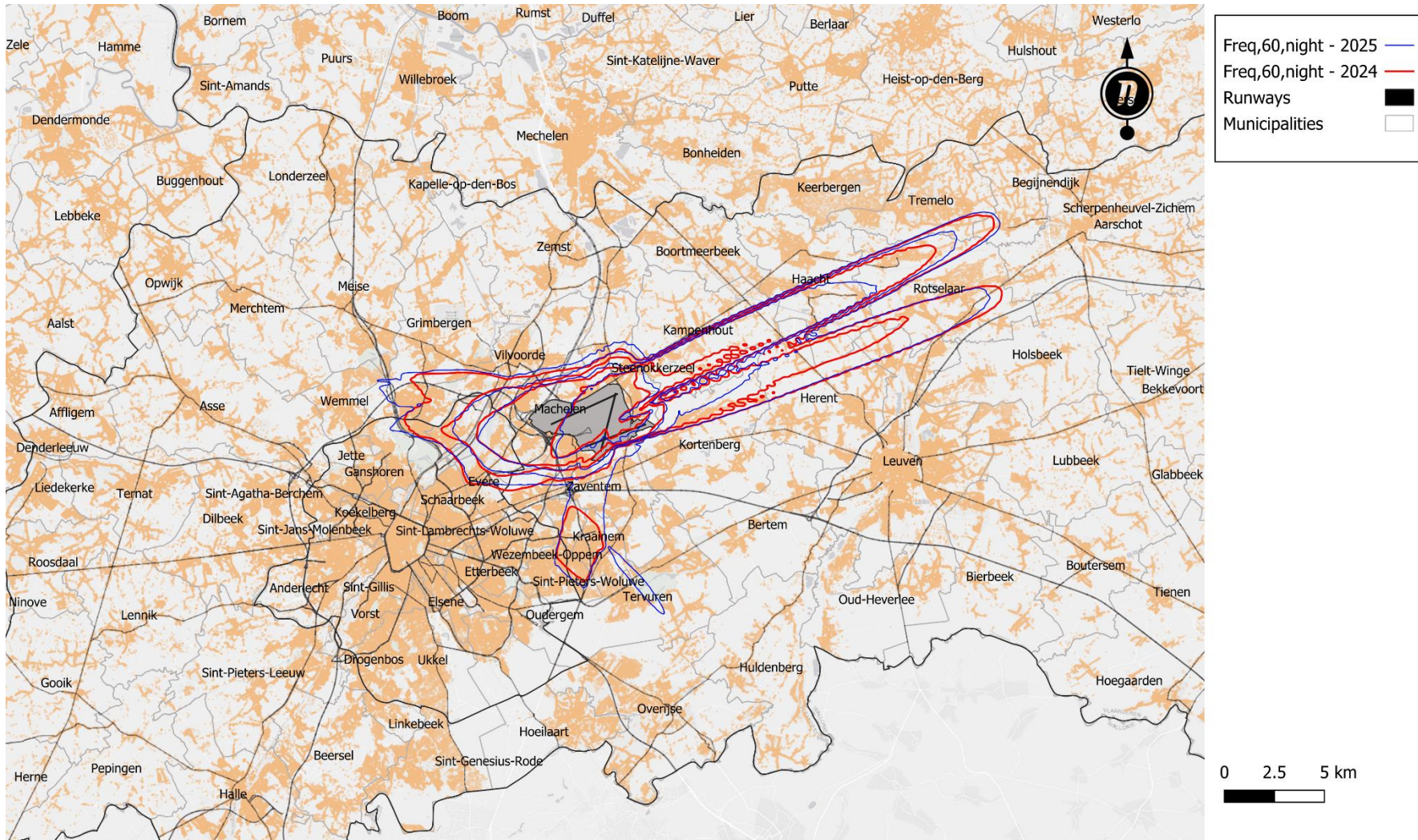
Evolution of Freq.60,evening against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 10x, 15x, 20x and 30x on average per day as aircraft pass between 23:00 and 07:00. The values ascend inwards: the outermost contour corresponds to 10x per evening etc.



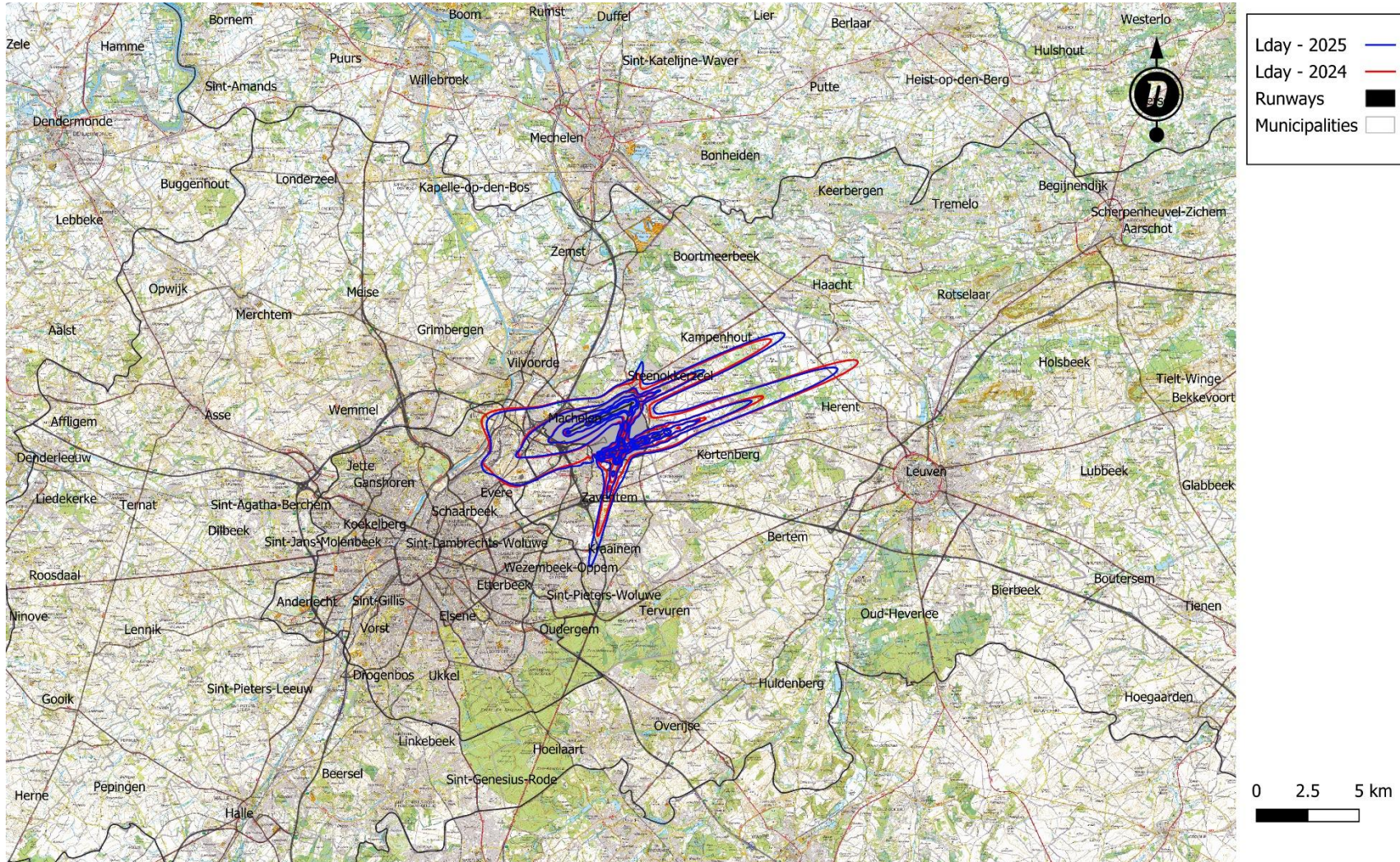
Evolution of Freq.60,night against 2025 population map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 10x, 15x, 20x and 30x on average per day as aircraft pass between 23:00 and 07:00. The values ascend inwards: the outermost contour corresponds to 10x per night etc.



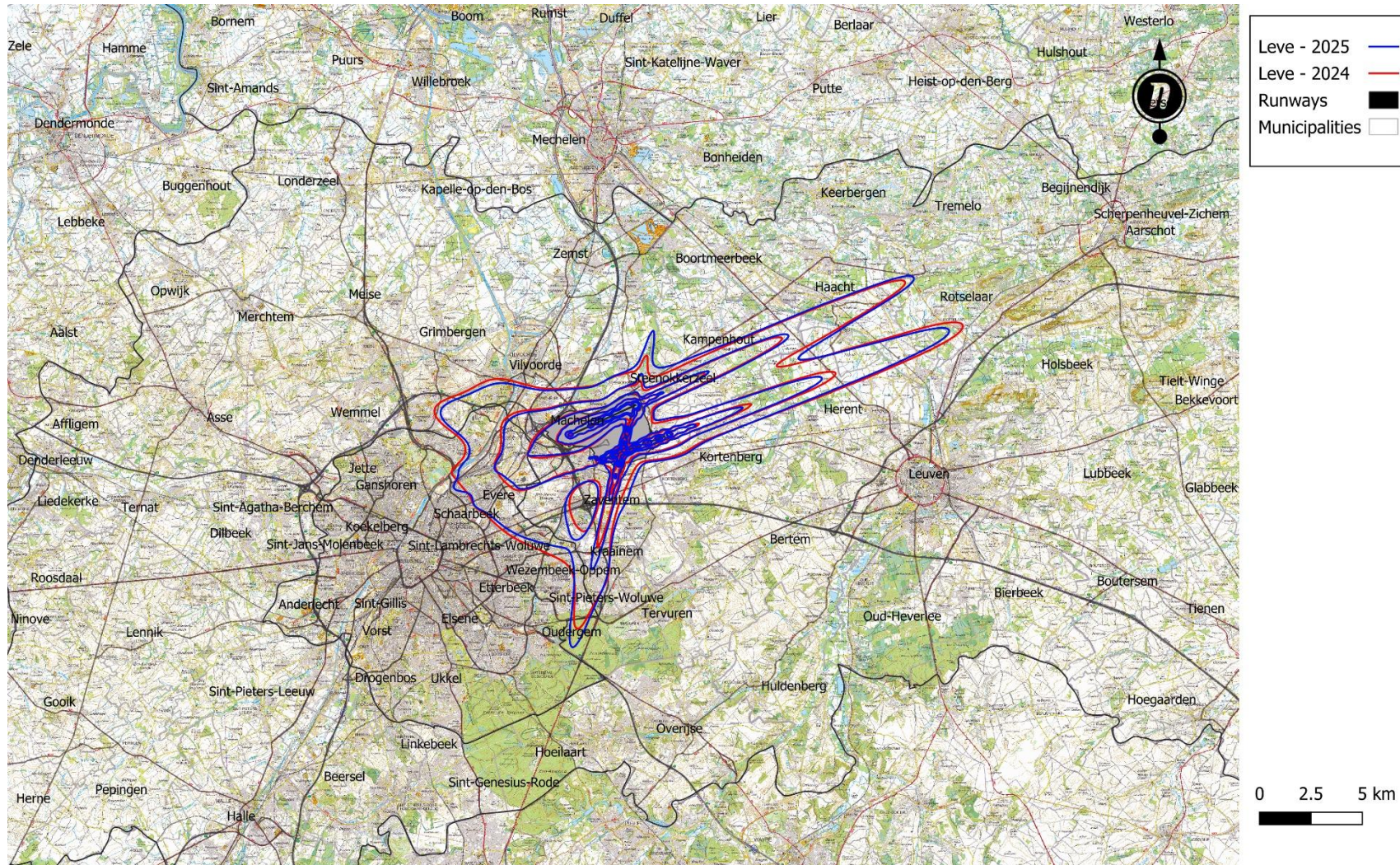
Evolution of L_{day} (07:00 to 19:00) noise contours against NGI topographic map

This map displays the contours for 2024 and 2025 where, between 07:00 and 19:00, the noise impact by air traffic is 55, 60, 65, 70 and 75 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 55 dB(A) etc.



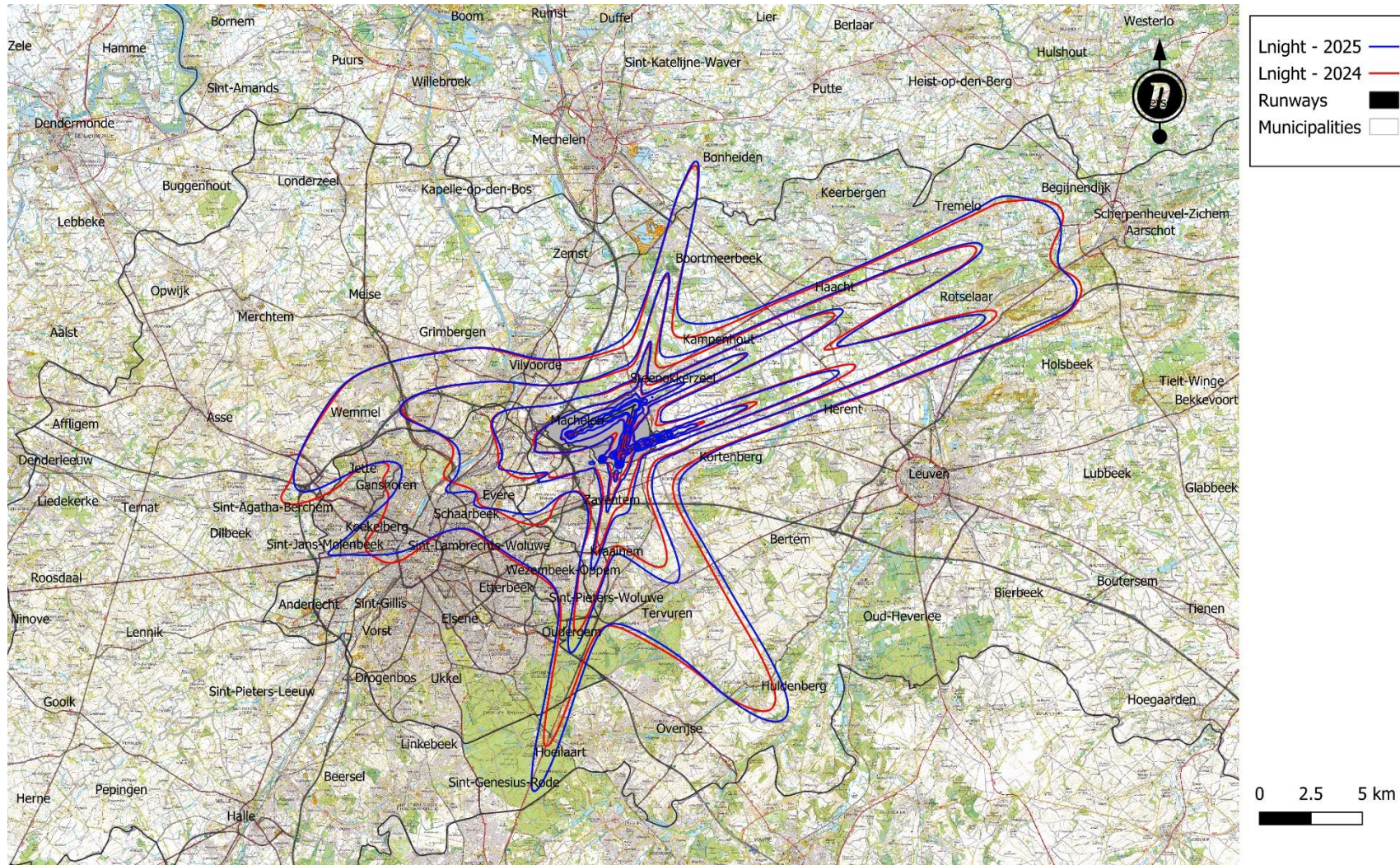
Evolution of Levening (19:00 to 23:00) noise contours against NGI topographic map

This map displays the contours for 2024 and 2025 where, between 19:00 and 23:00, the noise impact by air traffic is 50, 55, 60, 65, 70 and 75 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 50 dB(A) etc.



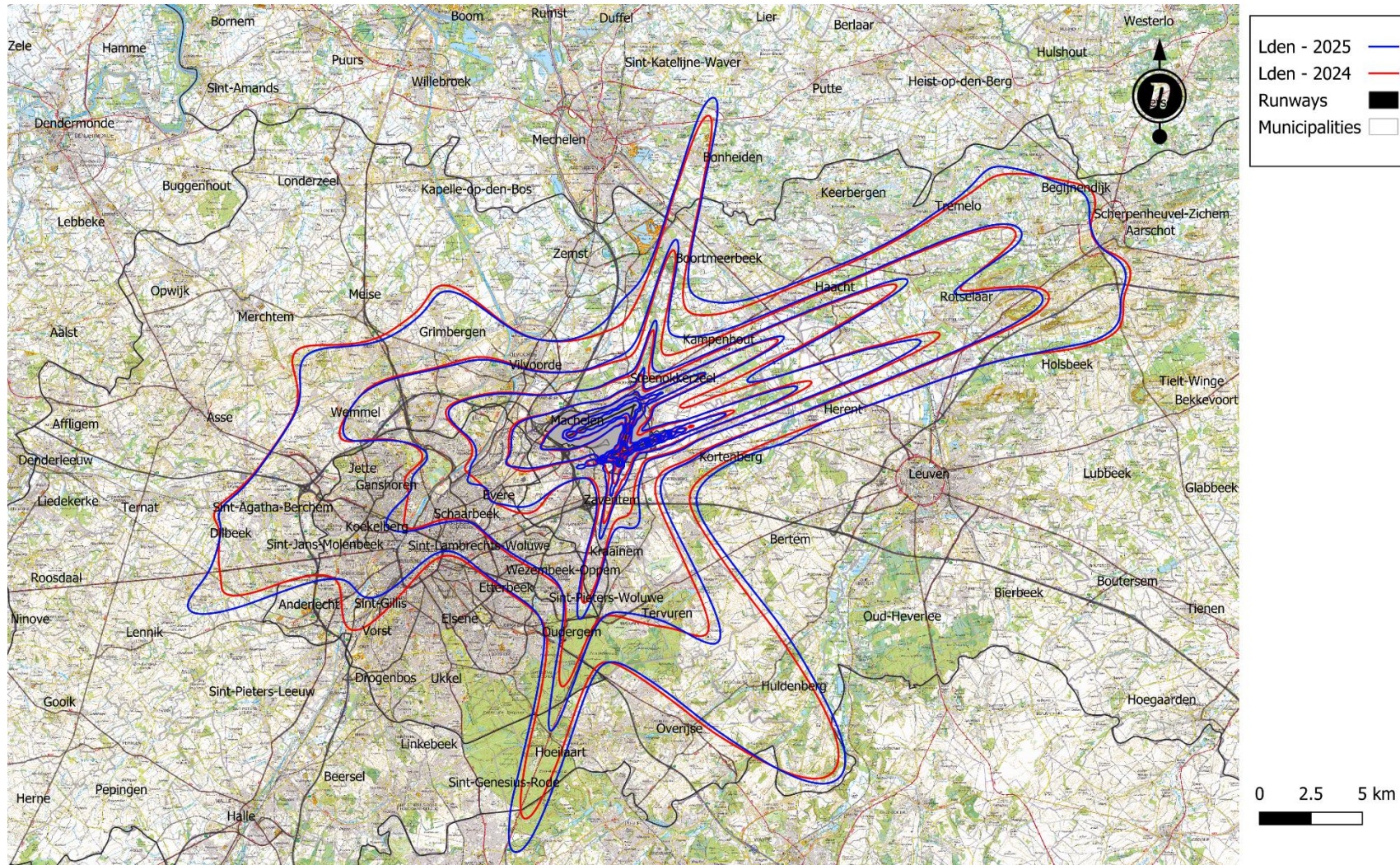
Evolution of L_{night} (23:00 to 7:00) noise contours against NGI topographic map

This map displays the contours for 2024 and 2025 where, between 23:00 and 07:00, the noise impact by air traffic is 40, 45, 50, 55, 60, 65 and 70 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 40 dB(A) etc.



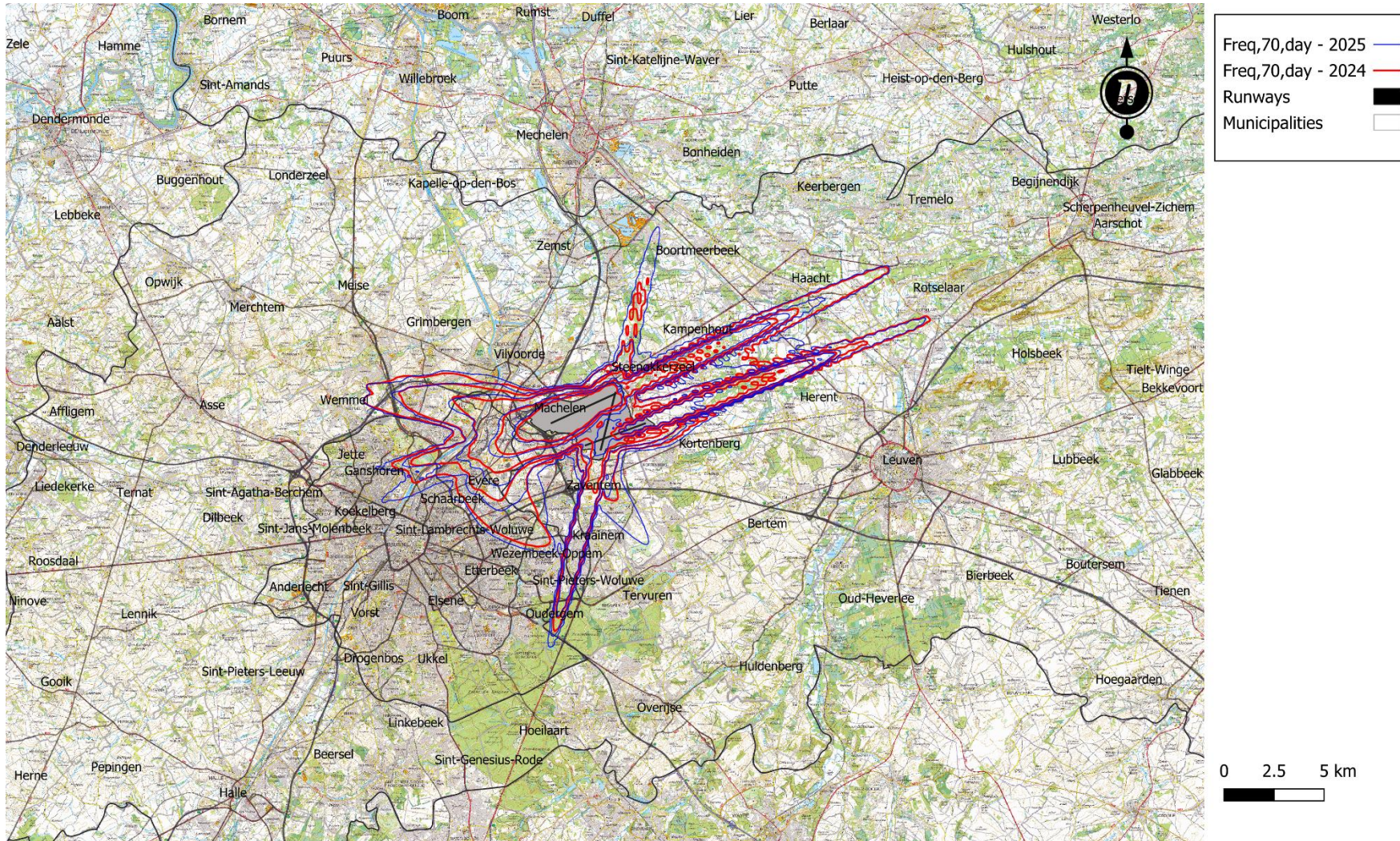
Evolution of L_{den} noise contours against NGI topographic map

This map displays the contours for 2024 and 2025 where the noise impact by air traffic is 45, 50, 55, 60, 65, 70 and 75 dB(A) on average. The values ascend inwards: the outermost contour corresponds to 45 dB(A) etc.



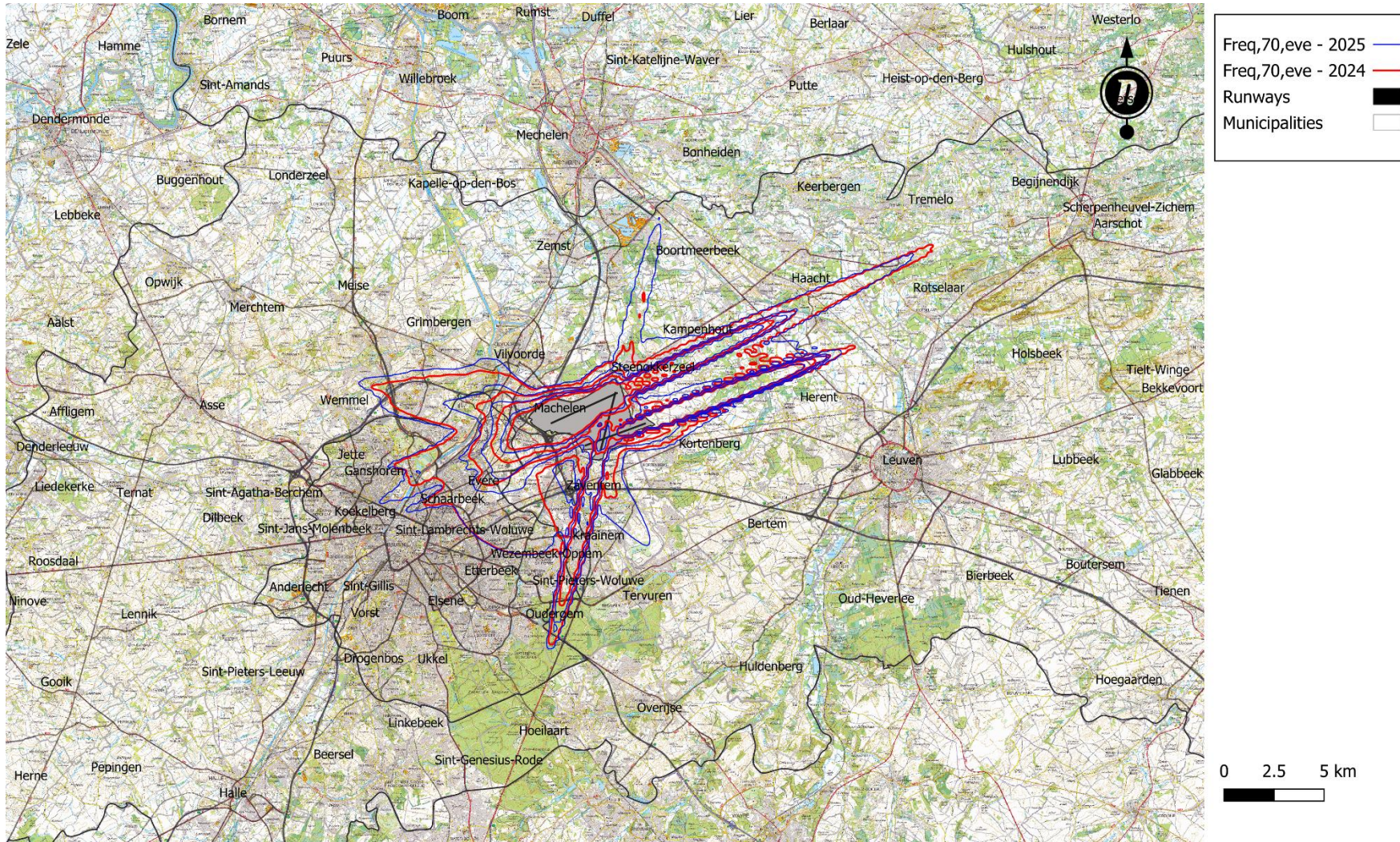
Evolution of Freq.70,day against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 5x, 10x, 20x, 50x and 100x on average per day as aircraft pass between 07:00 and 19:00. The values ascend inwards: the outermost contour corresponds to 5x per day etc.



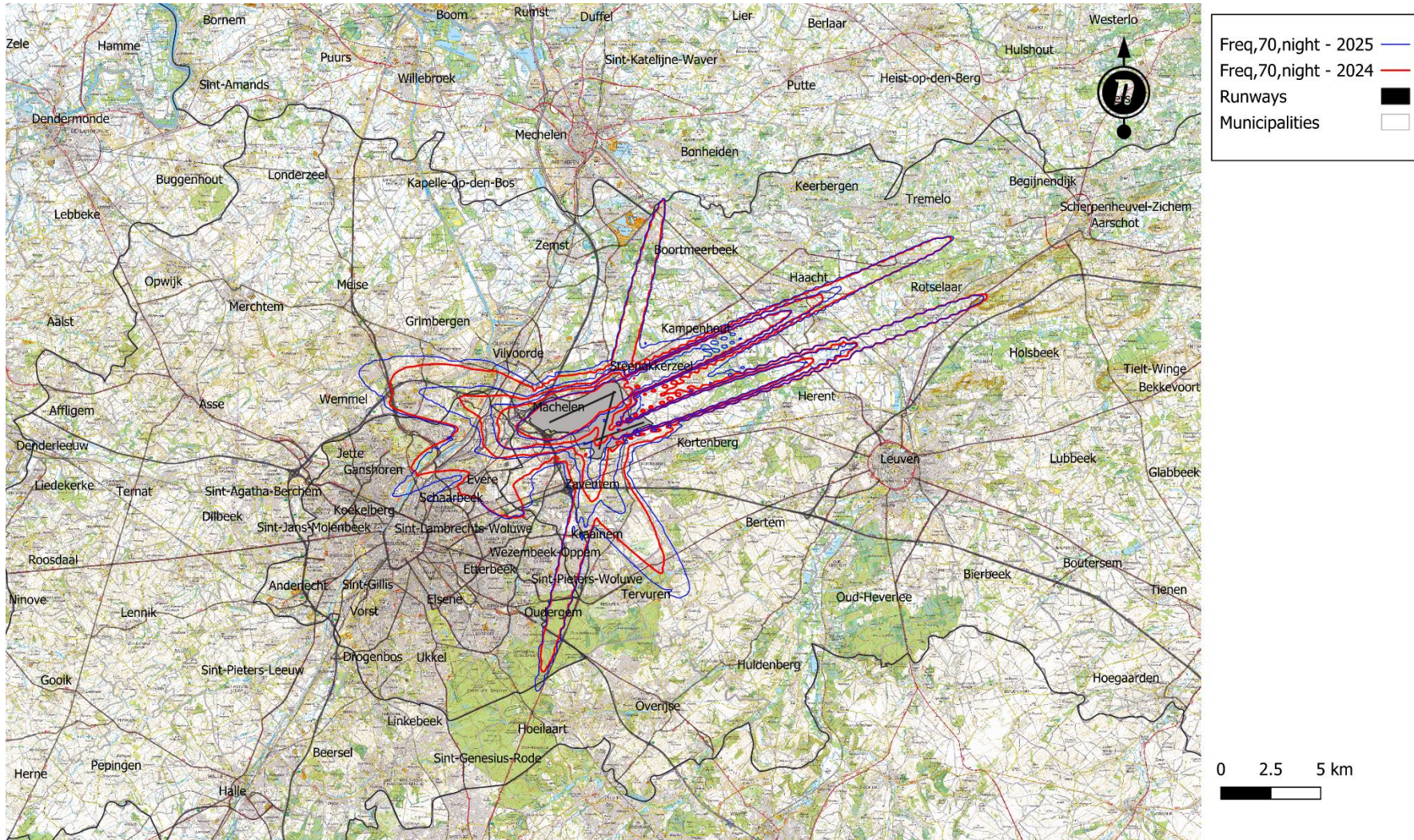
Evolution of Freq.70,evening against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 1x, 5x, 10x and 20x on average per day as aircraft pass between 19:00 and 23:00. The values ascend inwards: the outermost contour corresponds to 1x per evening etc.



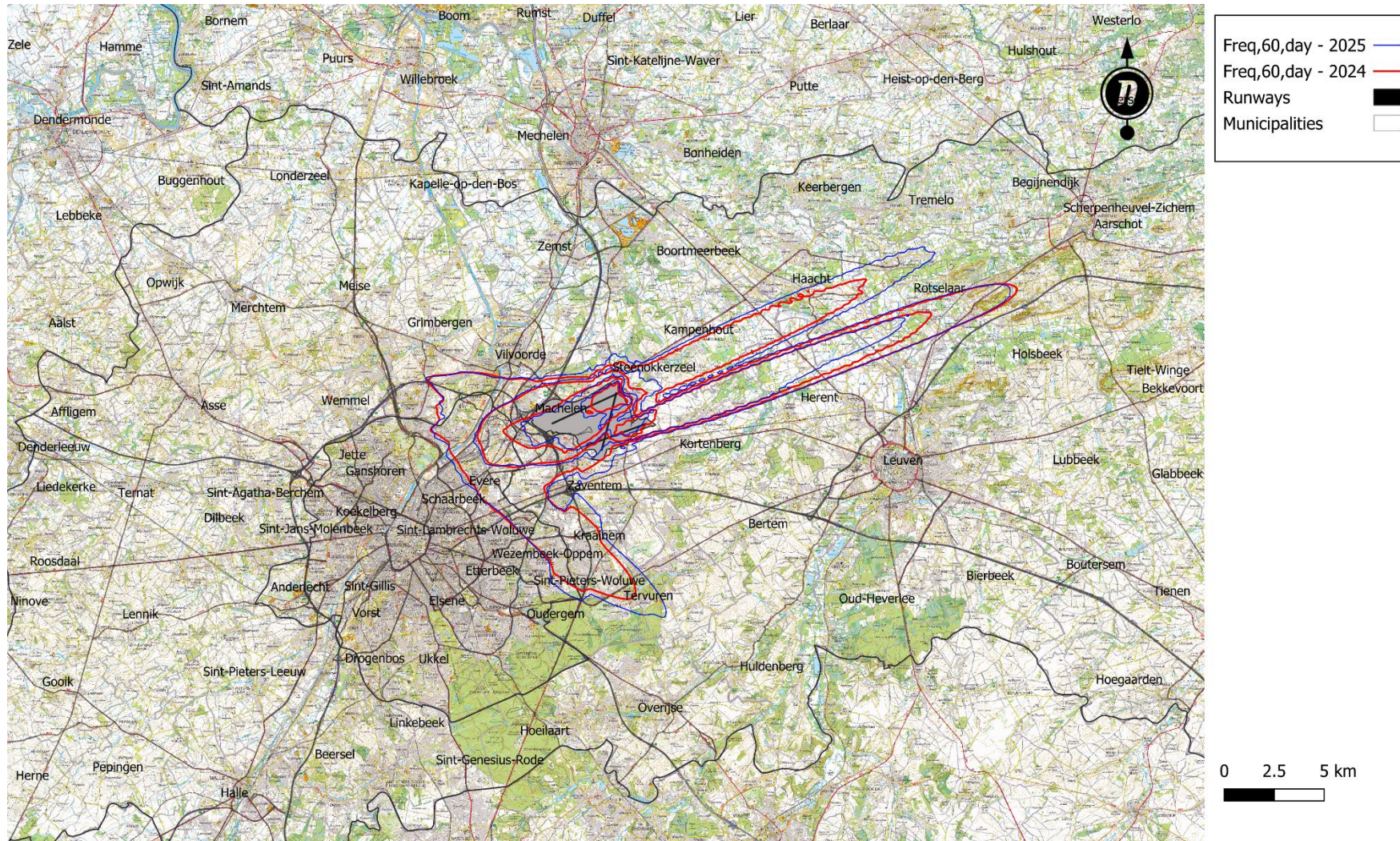
Evolution of Freq.70,night against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 70 dB or higher is observed 1x, 5x, 10x and 20x on average per day as aircraft pass between 23:00 and 07:00. The values ascend inwards: the outermost contour corresponds to 1x per night etc.



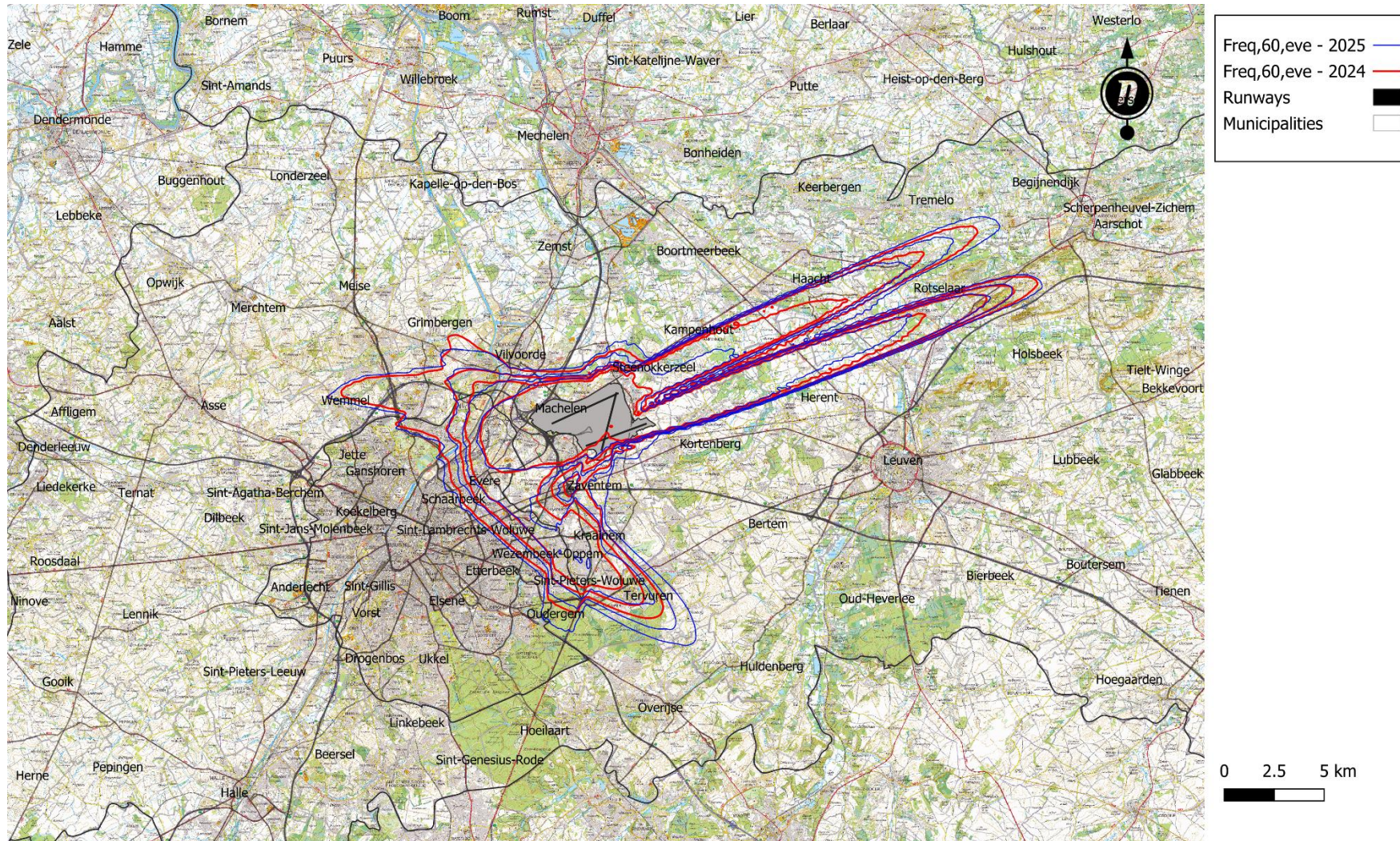
Evolution of Freq.60,day against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 50x, 100x, 150x and 200x on average per day as aircraft pass between 07:00 and 19:00. The values ascend inwards: the outermost contour corresponds to 50x per day etc.



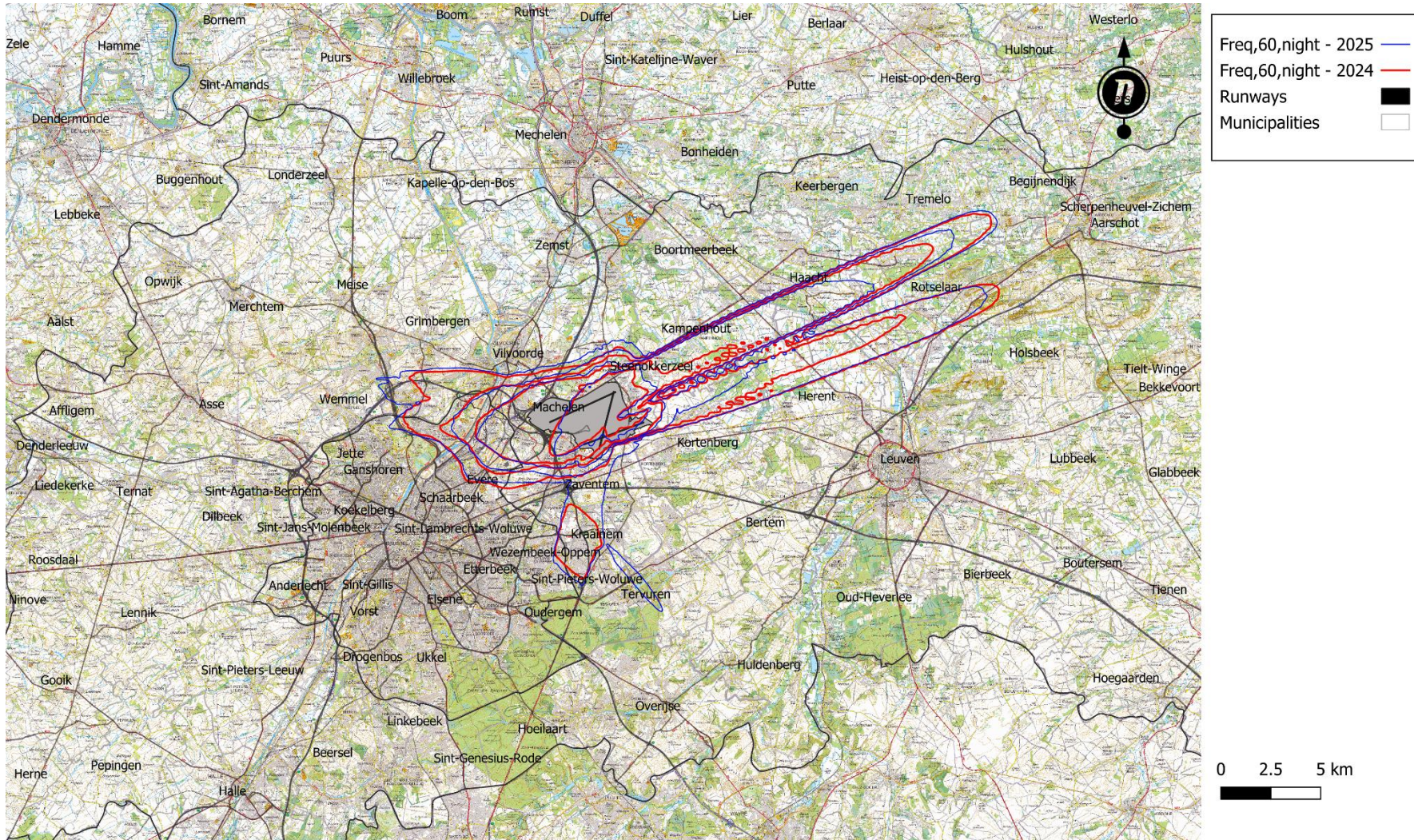
Evolution of Freq.60,evening against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 10x, 15x, 20x and 30x on average per day as aircraft pass between 19:00 and 23:00. The values ascend inwards: the outermost contour corresponds to 10x per evening etc.



Evolution of Freq.60,night against NGI topographic map

This map displays the contours for 2024 and 2025 where a noise level of 60 dB or higher is observed 10x, 15x, 20x and 30x on average per day as aircraft pass between 23:00 and 07:00. The values ascend inwards: the outermost contour corresponds to 10x per night etc.



Appendix E.

Evolution of surface area and number of residents

E.1 Evolution of surface area per contour zone: L_{day} , $L_{evening}$, L_{night} , L_{den} , Freq.70,day, Freq.70,evening, Freq.70,night, Freq.60,day, Freq.60,evening, Freq.60,night
Table 36: Evolution of surface area within the L_{day} contours (2000, 2006-2025)

| Area (ha) | L_{day} - contour zones in dB(A) (day 07:00-19:00) | | | | | Total |
|-----------|--|-------|-------|-------|-----|-------|
| | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| Year | | | | | | |
| 2000* | 5,919 | 2,113 | 827 | 383 | 242 | 9,485 |
| 2001 | | | | | | |
| 2002 | | | | | | |
| 2003 | | | | | | |
| 2004 | | | | | | |
| 2005 | | | | | | |
| 2006* | 3,787 | 1,379 | 545 | 213 | 150 | 6,073 |
| 2007* | 3,978 | 1,431 | 575 | 227 | 153 | 6,364 |
| 2008* | 4,072 | 1,492 | 596 | 232 | 161 | 6,553 |
| 2009* | 3,461 | 1,300 | 523 | 206 | 133 | 5,622 |
| 2010* | 3,334 | 1,261 | 514 | 196 | 126 | 5,431 |
| 2011* | 3,330 | 1,241 | 509 | 199 | 127 | 5,406 |
| 2012* | 2,978 | 1,121 | 466 | 189 | 117 | 4,871 |
| 2013* | 2,779 | 1,106 | 455 | 176 | 121 | 4,637 |
| 2014* | 2,924 | 1,120 | 474 | 187 | 116 | 4,821 |
| 2015* | 3,143 | 1,180 | 489 | 230 | 93 | 5,135 |
| 2016* | 2,886 | 1,087 | 545 | 123 | 82 | 4,723 |
| 2017* | 2,990 | 1,109 | 471 | 216 | 90 | 4,876 |
| 2018* | 3,037 | 1,150 | 486 | 227 | 87 | 4,987 |
| 2019* | 2,963 | 1,105 | 554 | 138 | 91 | 4,851 |
| 2020* | 1,521 | 602 | 247 | 176 | 0 | 2,547 |
| 2021** | 1,936 | 649 | 258 | 115 | 65 | 3,024 |
| 2022** | 2,647 | 881 | 330 | 143 | 82 | 4,083 |
| 2023** | 2,889 | 959 | 363 | 165 | 80 | 4,456 |
| 2024** | 2,862 | 928 | 374 | 153 | 83 | 4,400 |
| 2025** | 3,043 | 971 | 371 | 170 | 93 | 4,648 |

* Calculated with INM 7.0b, ** Calculated with Echo

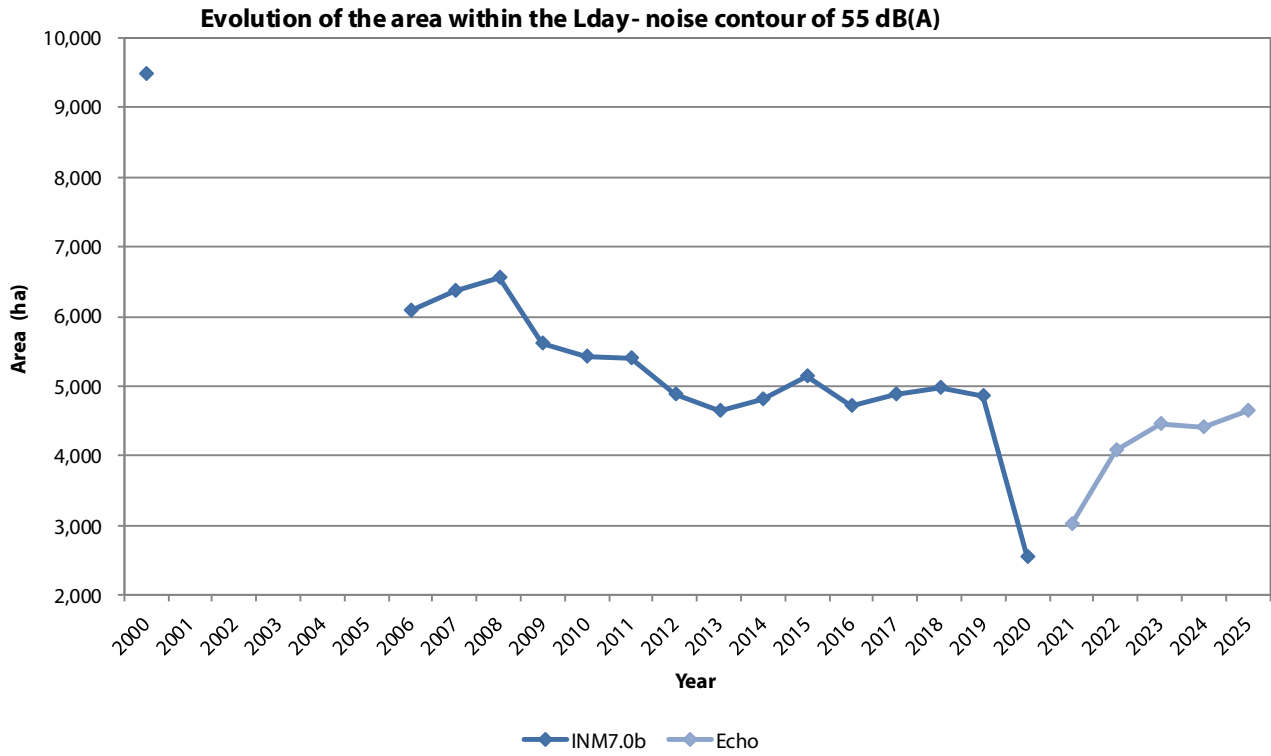


Figure 25: Evolution of surface area within the L_{day} contours (2000, 2006-2025)

Table 37: Evolution of surface area within the L_{evening} contours (2000, 2006-2025)

| Area (ha) | L_{evening} - contour zones in dB(A) (evening 19:00-23:00) | | | | | | Total |
|-----------|---|-------|-------|-------|-------|-----|--------|
| | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| 2000* | 11,266 | 5,265 | 1,889 | 741 | 346 | 216 | 19,723 |
| 2001 | | | | | | | |
| 2002 | | | | | | | |
| 2003 | | | | | | | |
| 2004 | | | | | | | |
| 2005 | | | | | | | |
| 2006* | 8,483 | 3,000 | 1,106 | 449 | 178 | 113 | 13,329 |
| 2007* | 9,106 | 3,369 | 1,223 | 506 | 200 | 124 | 14,528 |
| 2008* | 10,052 | 3,730 | 1,354 | 548 | 218 | 135 | 16,037 |
| 2009* | 8,313 | 3,126 | 1,146 | 463 | 178 | 109 | 13,336 |
| 2010* | 7,821 | 3,073 | 1,124 | 452 | 171 | 106 | 12,747 |
| 2011* | 7,711 | 3,004 | 1,106 | 446 | 175 | 105 | 12,547 |
| 2012* | 7,608 | 2,881 | 1,046 | 427 | 171 | 103 | 12,237 |
| 2013* | 6,998 | 2,668 | 994 | 401 | 161 | 104 | 11,222 |
| 2014* | 7,421 | 3,087 | 1,106 | 445 | 175 | 50 | 12,283 |
| 2015* | 8,244 | 3,051 | 1,108 | 450 | 205 | 89 | 13,147 |
| 2016* | 8,402 | 3,188 | 1,137 | 536 | 135 | 91 | 13,488 |
| 2017* | 8,556 | 3,172 | 1,108 | 457 | 205 | 92 | 13,590 |
| 2018* | 9,134 | 3,445 | 1,207 | 489 | 225 | 99 | 14,599 |
| 2019* | 8,836 | 3,283 | 1,138 | 542 | 142 | 97 | 14,038 |
| 2020* | 4,440 | 1,751 | 621 | 441 | 0 | 0 | 7,252 |
| 2021** | 5,117 | 1,637 | 632 | 213 | 91 | 67 | 7,757 |
| 2022** | 7,425 | 2,512 | 802 | 304 | 133 | 75 | 11,251 |
| 2023** | 7,997 | 2,796 | 906 | 325 | 153 | 77 | 12,254 |
| 2024** | 7,654 | 2,670 | 836 | 332 | 137 | 74 | 11,703 |
| 2025** | 7,542 | 2,759 | 828 | 330 | 146 | 77 | 11,682 |

* Calculated with INM 7.0b, ** Calculated with Echo

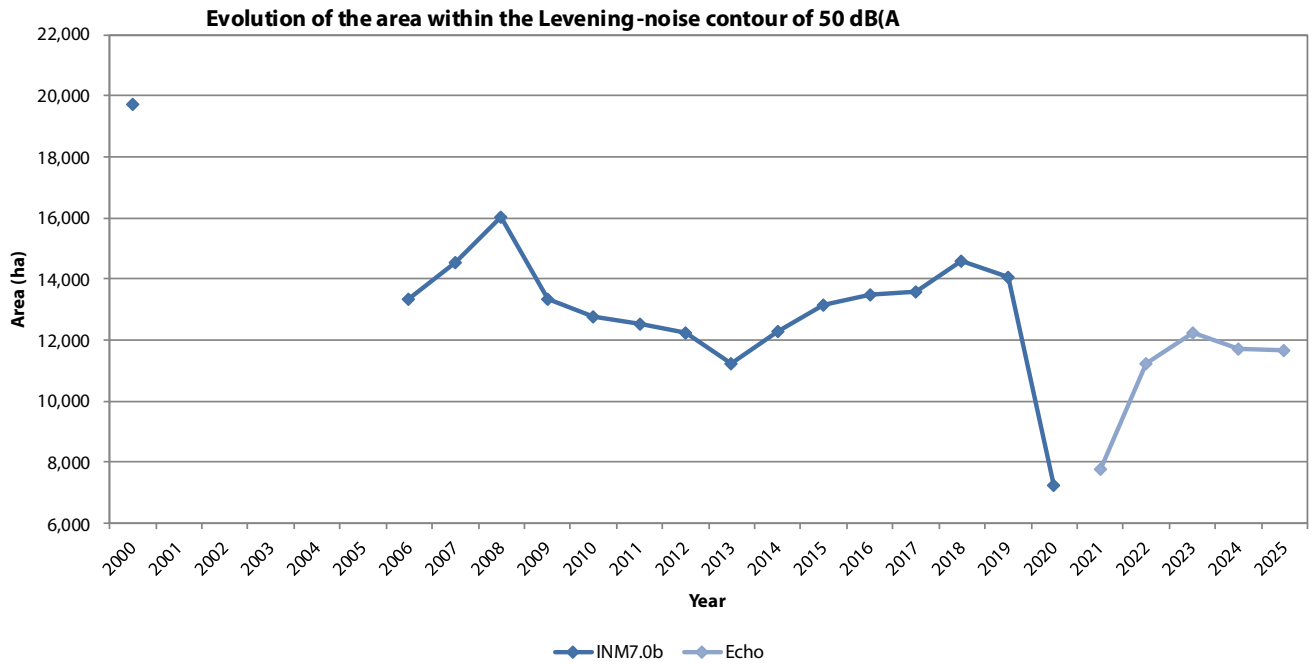
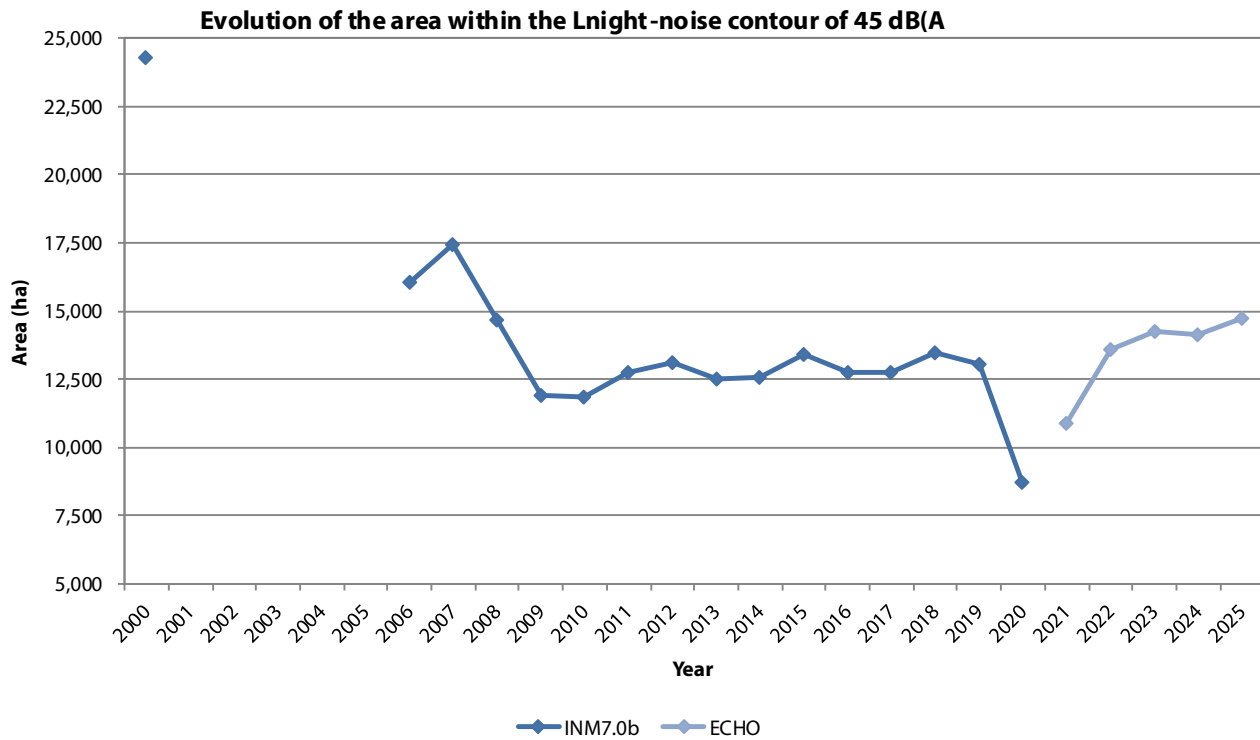


Figure 26: Evolution of surface area within the L_{evening} contours (2000, 2006-2025)

Table 38: Evolution of surface area within the L_{night} contours (2000, 2006-2025)

| Area (ha) | L_{night} - contour zones in dB(A) (night 23:00-07:00) | | | | | | | | Total (>40) | Total (>45) |
|-----------|---|--------|-------|-------|-------|-------|-----|--------|-------------|-------------|
| | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | >70 | | | |
| 2000* | | 13,927 | 6,145 | 2,366 | 1,090 | 492 | 290 | | 24,310 | |
| 2001 | | | | | | | | | | |
| 2002 | | | | | | | | | | |
| 2003 | | | | | | | | | | |
| 2004 | | | | | | | | | | |
| 2005 | | | | | | | | | | |
| 2006* | | 10,135 | 3,571 | 1,450 | 554 | 211 | 153 | | 16,075 | |
| 2007* | | 10,872 | 3,936 | 1,597 | 625 | 236 | 165 | | 17,430 | |
| 2008* | | 9,375 | 3,232 | 1,260 | 495 | 189 | 123 | | 14,673 | |
| 2009* | | 7,638 | 2,613 | 1,014 | 397 | 155 | 96 | | 11,913 | |
| 2010* | | 7,562 | 2,633 | 999 | 390 | 154 | 96 | | 11,835 | |
| 2011* | | 8,184 | 2,803 | 1,066 | 413 | 164 | 106 | | 12,736 | |
| 2012* | | 8,525 | 2,827 | 1,074 | 419 | 168 | 105 | | 13,118 | |
| 2013* | | 7,817 | 2,857 | 1,525 | 172 | 130 | 0 | | 12,501 | |
| 2014* | | 7,800 | 2,921 | 1,120 | 448 | 179 | 115 | | 12,583 | |
| 2015* | | 8,451 | 3,019 | 1,172 | 460 | 194 | 117 | | 13,413 | |
| 2016* | | 7,969 | 2,930 | 1,111 | 441 | 188 | 109 | | 12,748 | |
| 2017* | | 7,995 | 2,929 | 1,112 | 427 | 186 | 104 | | 12,754 | |
| 2018* | | 8,495 | 3,084 | 1,148 | 442 | 178 | 128 | | 13,476 | |
| 2019* | | 8,172 | 3,016 | 1,124 | 437 | 190 | 105 | | 13,044 | |
| 2020* | | 5,418 | 2,016 | 756 | 308 | 193 | 0 | | 8,691 | |
| 2021** | | 7,129 | 2,428 | 840 | 282 | 123 | 68 | | 10,870 | |
| 2022** | | 8,817 | 3,160 | 1,010 | 351 | 158 | 77 | | 13,572 | |
| 2023** | 19,596 | 9,170 | 3,391 | 1,075 | 389 | 167 | 79 | 33,867 | 14,271 | |
| 2024** | 19,675 | 9,134 | 3,285 | 1,077 | 398 | 165 | 76 | 33,810 | 14,136 | |
| 2025** | 20,279 | 9,505 | 3,424 | 1,110 | 394 | 180 | 87 | 34,979 | 14,700 | |

* Calculated with INM 7.0b, ** Calculated with Echo

Figure 27: Evolution of surface area within the L_{night} contours (2000, 2006-2025)Table 39: Evolution of surface area within the L_{den} contours (2000, 2006-2025)

| Area (ha) | Lden - contour zones in dB(A) (d. 07h-19h, ev. 19h-23h, n. 23h-07h) | | | | | | | | Total (>45) | Total (>55) |
|-----------|---|--------|--------|-------|-------|-------|-----|--------|-------------|-------------|
| | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | | | |
| 2000* | | | 10,664 | 4,063 | 1,626 | 745 | 497 | | 17,594 | |
| 2001 | | | | | | | | | | |
| 2002 | | | | | | | | | | |
| 2003 | | | | | | | | | | |
| 2004 | | | | | | | | | | |
| 2005 | | | | | | | | | | |
| 2006* | | | 6,963 | 2,448 | 957 | 373 | 251 | | 10,992 | |
| 2007* | | | 7,632 | 2,640 | 1,036 | 416 | 271 | | 11,996 | |
| 2008* | | | 7,118 | 2,483 | 953 | 379 | 246 | | 11,178 | |
| 2009* | | | 5,771 | 2,077 | 797 | 316 | 203 | | 9,163 | |
| 2010* | | | 5,576 | 2,052 | 782 | 308 | 199 | | 8,917 | |
| 2011* | | | 5,767 | 2,076 | 800 | 316 | 208 | | 9,167 | |
| 2012* | | | 5,623 | 1,998 | 771 | 308 | 205 | | 8,905 | |
| 2013* | | | 5,152 | 1,981 | 767 | 299 | 216 | | 8,415 | |
| 2014* | | | 5,429 | 2,066 | 800 | 325 | 136 | | 8,756 | |
| 2015* | | | 5,695 | 2,159 | 825 | 332 | 224 | | 9,236 | |
| 2016* | | | 5,554 | 2,085 | 797 | 326 | 213 | | 8,974 | |
| 2017* | | | 5,579 | 2,088 | 795 | 325 | 213 | | 9,000 | |
| 2018* | | | 5,957 | 2,186 | 832 | 336 | 228 | | 9,540 | |
| 2019* | | | 5,646 | 2,115 | 802 | 331 | 220 | | 9,115 | |
| 2020* | | | 3,445 | 1,270 | 494 | 208 | 133 | | 5,549 | |
| 2021** | | | 4,290 | 1,378 | 543 | 176 | 132 | | 6,520 | |
| 2022** | | | 5,681 | 1,935 | 622 | 247 | 163 | | 8,648 | |
| 2023** | 28,834 | 14,880 | 6,087 | 2,063 | 703 | 257 | 172 | 52,996 | 9,282 | |
| 2024** | 29,293 | 14,940 | 5,823 | 2,042 | 667 | 277 | 160 | 53,203 | 8,790 | |
| 2025** | 29,973 | 15,347 | 6,155 | 2,116 | 680 | 268 | 185 | 54,724 | 9,404 | |

* Calculated with INM 7.0b, ** Calculated with Echo

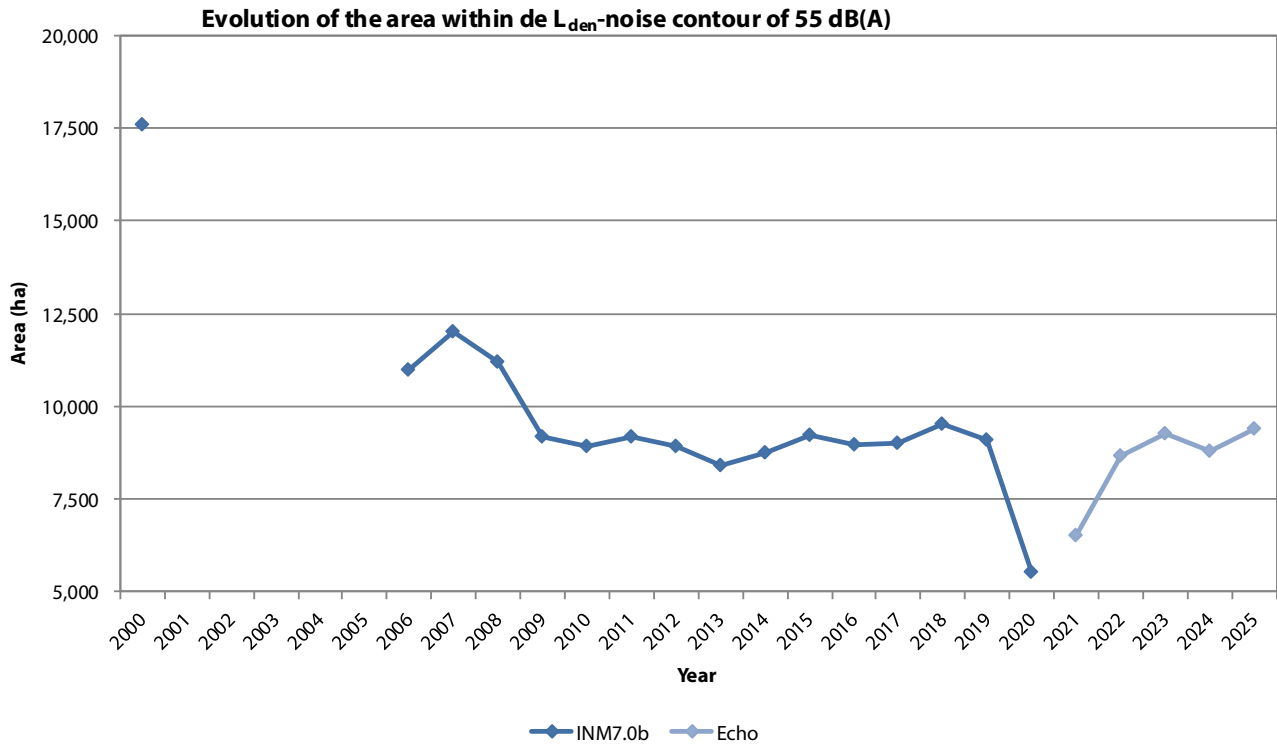


Figure 28: Evolution of surface area within the L_{den} contours (2000, 2006-2025)

Table 40: Evolution of surface area within the Freq.70,day contours (2024, 2025)

| Area (ha) | Freq.70,day - contour zones (day 07:00-19:00) | | | | | Total |
|-----------|---|-------|-------|--------|-------|---------------|
| | 5-10 | 10-20 | 20-50 | 50-100 | >100 | |
| 2024** | 4,092 | 2,451 | 2,314 | 991 | 1,191 | 11,040 |
| 2025** | 4,741 | 2,848 | 2,803 | 1,772 | 1,069 | 13,233 |

** Calculated with Echo

Table 41: Evolution of surface area within the Freq.70,evening contours (2019, 2024, 2025)

| Area (ha) | Freq.70,evening - contour zones (evening 19:00-23:00) | | | | Total |
|-----------|---|-------|-------|-------|---------------|
| | 1-5 | 5-10 | 10-20 | >20 | |
| 2019** | 6,646 | 2,043 | 1,156 | 2,128 | 11,973 |
| 2024** | 7,949 | 2,004 | 1,375 | 1,714 | 13,043 |
| 2025** | 8,252 | 2,222 | 1,607 | 2,362 | 14,443 |

** Calculated with Echo

Table 42: Evolution of surface area within the Freq.70,night contours (2006-2025)

| Area (ha) | Freq.70,night - contour zones (night 23:00-07:00) | | | | | |
|-----------|---|-------|-------|-------|-----|--------|
| Year | 1-5 | 5-10 | 10-20 | 20-50 | >50 | Total |
| 2006 | | | | | | |
| 2007 | | | | | | |
| 2008 | | | | | | |
| 2009 | | | | | | |
| 2010* | 9,535 | 2,679 | 1,948 | 748 | 0 | 14,910 |
| 2011* | 9,557 | 2,662 | 2,095 | 801 | 0 | 15,115 |
| 2012* | 9,226 | 2,846 | 2,005 | 861 | 0 | 14,938 |
| 2013* | 9,083 | 2,821 | 2,223 | 723 | 0 | 14,944 |
| 2014* | 8,169 | 2,586 | 2,030 | 1,001 | 27 | 13,813 |
| 2015* | 7,949 | 2,928 | 1,876 | 1,133 | 0 | 13,885 |
| 2016* | 8,104 | 2,439 | 2,149 | 998 | 0 | 13,690 |
| 2017* | 7,813 | 2,512 | 2,142 | 959 | 0 | 13,427 |
| 2018* | 8,207 | 2,508 | 2,362 | 957 | 0 | 14,034 |
| 2019* | 7,834 | 2,345 | 2,299 | 1,012 | 0 | 13,489 |
| 2020* | 7,397 | 1,990 | 1,385 | 204 | 0 | 10,976 |
| 2021** | 6,797 | 2,475 | 1,627 | 188 | 0 | 11,087 |
| 2022** | 7,015 | 2,098 | 2,217 | 686 | 0 | 12,016 |
| 2023** | 7,905 | 1,836 | 2,088 | 741 | 0 | 12,570 |
| 2024** | 7,725 | 1,847 | 2,204 | 836 | 0 | 12,612 |
| 2025** | 9,068 | 2,482 | 2,221 | 1,224 | 0 | 14,995 |

* Calculated with INM 7.0b, ** Calculated with Echo

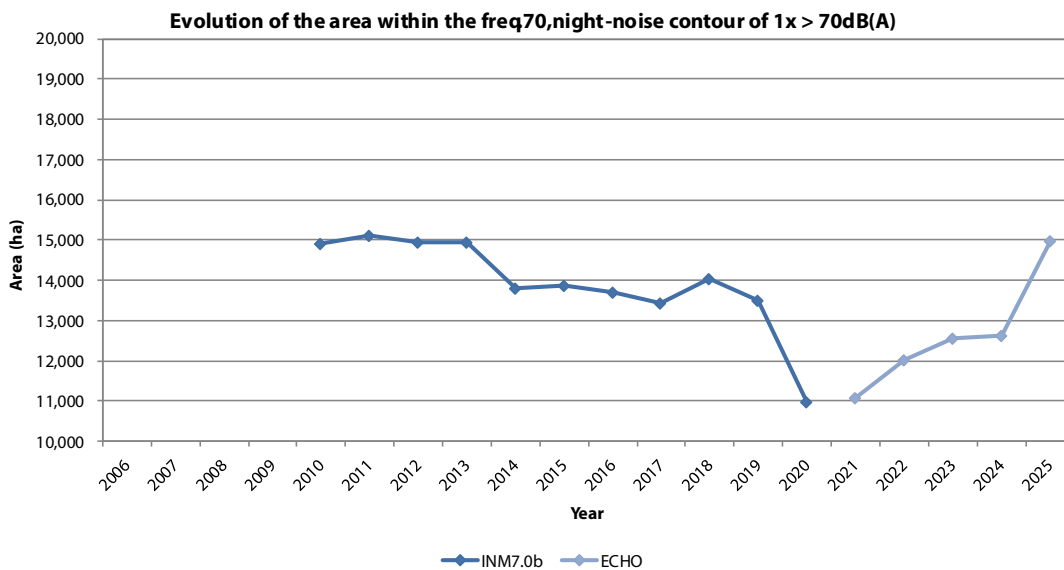


Figure 29: Evolution of surface area within the Freq.70,night contours (2006-2025)

Table 43: Evolution of surface area within the Freq. 60,day contours (2024, 2025)

| Area (ha) | Freq.60,day - contour zones (day 07:00-19:00) | | | | |
|-----------|---|---------|---------|------|--------|
| Year | 50-100 | 100-150 | 150-200 | >200 | Total |
| 2024** | 7,310 | 3,575 | 1,154 | 150 | 12,189 |
| 2025** | 9,523 | 3,628 | 945 | 266 | 14,362 |

** Calculated with Echo

Table 44: Evolution of surface area within the Freq. 60, evening contours (2024, 2025)

| Area (ha) | Freq.60, evening - contour zones (evening 19:00-23:00) | | | | |
|-----------|--|-------|-------|-------|---------------|
| Year | 10-15 | 15-20 | 20-30 | >30 | Total |
| 2019** | 4,888 | 2,918 | 5,502 | 6,380 | 19,688 |
| 2024** | 4,960 | 3,161 | 4,748 | 4,930 | 17,799 |
| 2025** | 5,196 | 3,593 | 6,154 | 5,411 | 20,354 |

** Calculated with Echo

Table 45: Evolution of surface area within the Freq.60, night contours (2006-2025)

| Area (ha) | Freq.60, night - contour zones (night 23:00-07:00) | | | | |
|-----------|--|-------|-------|-------|---------------|
| Year | 10-15 | 15-20 | 20-30 | >30 | Total |
| 2006 | | | | | |
| 2007 | | | | | |
| 2008 | | | | | |
| 2009 | | | | | |
| 2010* | 5,577 | 1,797 | 1,930 | 725 | 10,030 |
| 2011* | 6,436 | 1,972 | 1,930 | 905 | 11,242 |
| 2012* | 7,522 | 1,778 | 1,932 | 1,004 | 12,236 |
| 2013* | 5,083 | 2,367 | 1,888 | 1,031 | 10,369 |
| 2014* | 4,807 | 2,542 | 1,845 | 1,670 | 10,864 |
| 2015* | 5,819 | 1,786 | 3,064 | 1,295 | 11,964 |
| 2016* | 5,142 | 3,635 | 2,053 | 1,222 | 12,052 |
| 2017* | 5,612 | 3,310 | 2,349 | 1,183 | 12,454 |
| 2018* | 5,580 | 3,434 | 2,746 | 1,301 | 13,061 |
| 2019* | 5,802 | 3,774 | 2,480 | 1,296 | 13,352 |
| 2020* | 4,111 | 882 | 567 | 267 | 5,827 |
| 2021** | 2,845 | 3,459 | 869 | 318 | 7,491 |
| 2022** | 6,584 | 2,884 | 2,597 | 732 | 12,796 |
| 2023** | 6,081 | 3,557 | 2,478 | 864 | 12,980 |
| 2024** | 5,243 | 5,234 | 2,287 | 1,075 | 13,838 |
| 2025** | 7,217 | 2,724 | 4,071 | 1,229 | 15,241 |

* Calculated with INM 7.0b, ** Calculated with Echo

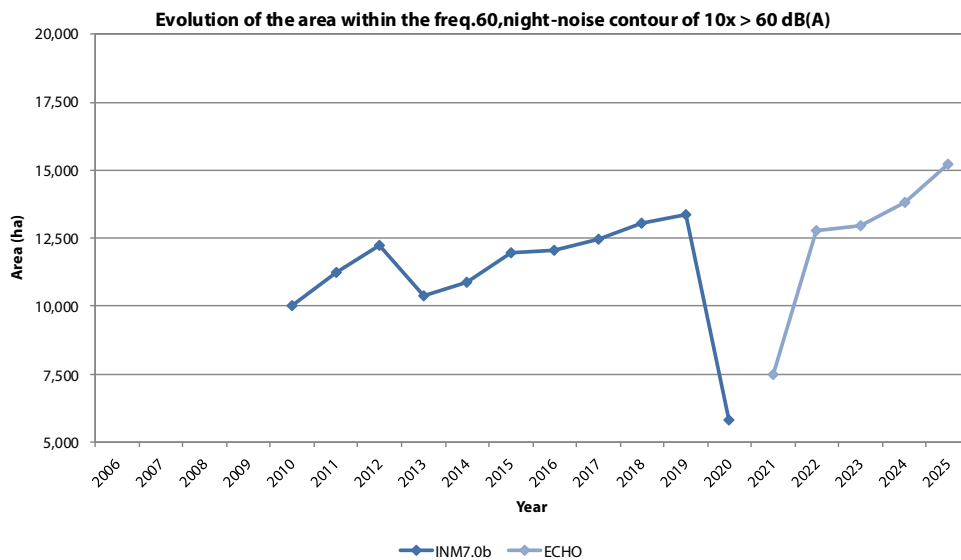


Figure 30: Evolution of surface area within the Freq.60,night contours (2006-2025)

E.2 Evolution of the number of residents per contour zone: L_{day} , $L_{evening}$, L_{night} , L_{den} , $Freq.70,day$, $Freq.70,night$, $Freq.60,day$, $Freq.60,night$

Table 46: Evolution of the number of residents within the L_{day} contours (2000, 2006-2025)

| Number of inhabitants | | L_{day} - contour zones in dB(A) (day 07:00-19:00) | | | | | |
|-----------------------|-----------------|--|--------|-------|-------|-----|---------|
| Year | Population data | 55-60 | 60-65 | 65-70 | 70-75 | >75 | Total |
| 2000* | 01jan00 | 106,519 | 13,715 | 5,660 | 1,134 | 20 | 127,048 |
| 2001 | | | | | | | |
| 2002 | | | | | | | |
| 2003 | | | | | | | |
| 2004 | | | | | | | |
| 2005 | | | | | | | |
| 2006* | 01jan03 | 39,478 | 9,241 | 2,714 | 74 | 3 | 51,511 |
| 2007* | 01jan06 | 47,260 | 9,966 | 3,168 | 102 | 3 | 60,499 |
| 2008* | 01jan07 | 44,013 | 10,239 | 3,217 | 101 | 4 | 57,575 |
| 2009* | 01jan07 | 32,144 | 8,724 | 2,815 | 58 | 3 | 43,745 |
| 2010* | 01jan08 | 30,673 | 8,216 | 2,393 | 35 | 7 | 41,323 |
| 2011* | 01jan08 | 28,828 | 8,486 | 2,460 | 46 | 7 | 39,828 |
| 2012* | 01jan10 | 23,963 | 8,277 | 2,110 | 22 | 2 | 34,375 |
| 2013* | 01jan10 | 22,737 | 7,482 | 1,318 | 7 | 2 | 31,546 |
| 2014* | 01jan11 | 22,998 | 8,649 | 2,249 | 22 | 2 | 33,920 |
| 2015* | 01jan11 | 23,662 | 8,945 | 2,350 | 99 | 0 | 35,056 |
| 2016* | 01jan11 | 20,554 | 8,380 | 2,094 | 28 | 0 | 31,057 |
| 2017 ^{1*} | 01jan16 | 21,950 | 9,003 | 3,108 | 0 | 0 | 34,062 |
| 2018 ^{1*} | 01jan17 | 23,289 | 8,993 | 2,798 | 3 | 0 | 35,083 |
| 2019 ^{1*} | 01jan19 | 21,875 | 9,342 | 3,270 | 3 | 0 | 34,489 |
| 2020 ^{1*} | 01jan20 | 14,195 | 4,191 | 122 | 0 | 0 | 18,507 |
| 2021 ^{1**} | 01jan22 | 17,686 | 3,670 | 45 | 0 | 0 | 21,401 |
| 2022 ^{1**} | 01jan23 | 24,080 | 5,570 | 148 | 0 | 0 | 29,797 |
| 2023 ^{1**} | 01jan24 | 26,201 | 6,830 | 215 | 6 | 0 | 33,252 |
| 2024 ^{1**} | 01jan25 | 25,774 | 7,030 | 243 | 0 | 0 | 33,047 |
| 2025 ^{1**} | 01jan26 | 30,472 | 7,001 | 302 | 0 | 0 | 37,775 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

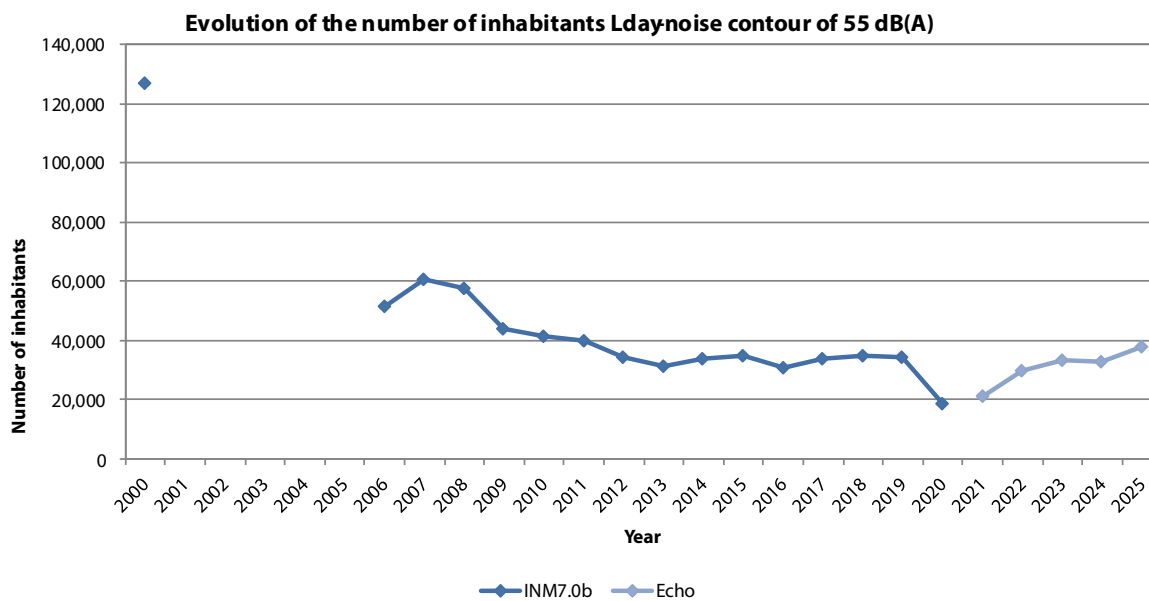


Figure 31: Evolution of the number of residents within the L_{day} contours (2000, 2006-2025)

Table 47: Evolution of the number of residents within the L_{evening} contours (2000, 2006-2025)

| Number of inhabitants | | L _{evening} - contour zones in dB(A) (evening 19:00-23:00) | | | | | | Total |
|-----------------------|-----------------|---|--------|--------|-------|-------|-----|---------|
| Year | Population data | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | |
| 2000* | 01jan00 | 209,265 | 86,637 | 13,246 | 4,990 | 602 | 9 | 314,750 |
| 2001 | | | | | | | | |
| 2002 | | | | | | | | |
| 2003 | | | | | | | | |
| 2004 | | | | | | | | |
| 2005 | | | | | | | | |
| 2006* | 01jan03 | 185,699 | 24,488 | 7,138 | 2,030 | 28 | 3 | 219,386 |
| 2007* | 01jan06 | 214,616 | 35,445 | 8,217 | 2,583 | 38 | 2 | 260,901 |
| 2008* | 01jan07 | 249,024 | 43,589 | 9,514 | 2,969 | 52 | 3 | 305,152 |
| 2009* | 01jan07 | 198,351 | 29,774 | 7,448 | 2,186 | 32 | 2 | 237,793 |
| 2010* | 01jan08 | 198,934 | 37,729 | 7,127 | 2,057 | 25 | 5 | 245,878 |
| 2011* | 01jan08 | 198,540 | 41,951 | 7,110 | 2,077 | 32 | 5 | 249,716 |
| 2012* | 01jan10 | 213,799 | 46,427 | 7,309 | 2,072 | 27 | 1 | 269,635 |
| 2013* | 01jan10 | 148,866 | 25,888 | 6,432 | 1,054 | 7 | 1 | 182,247 |
| 2014* | 01jan11 | 187,698 | 23,913 | 9,632 | 2,052 | 29 | 0 | 223,324 |
| 2015* | 01jan11 | 168,549 | 22,593 | 8,790 | 2,424 | 88 | 0 | 202,444 |
| 2016* | 01jan11 | 204,319 | 29,643 | 9,140 | 2,796 | 52 | 0 | 245,949 |
| 2017 ^{1*} | 01jan16 | 206,220 | 26,880 | 9,055 | 3,173 | 5 | 0 | 245,334 |
| 2018 ^{1*} | 01jan17 | 226,101 | 34,113 | 10,033 | 3,538 | 57 | 0 | 273,841 |
| 2019 ^{1*} | 01jan19 | 213,243 | 28,965 | 9,814 | 3,531 | 5 | 0 | 255,558 |
| 2020 ^{1*} | 01jan20 | 54,642 | 16,266 | 5,093 | 261 | 0 | 0 | 76,262 |
| 2021 ^{**} | 01jan22 | 56,816 | 16,283 | 3,676 | 37 | 0 | 0 | 76,812 |
| 2022 ^{1**} | 01jan23 | 130,068 | 24,876 | 4,859 | 145 | 0 | 0 | 159,949 |
| 2023 ^{1**} | 01jan24 | 157,712 | 28,274 | 5,839 | 184 | 0 | 0 | 192,009 |
| 2024 ^{1**} | 01jan25 | 158,787 | 26,738 | 5,758 | 213 | 0 | 0 | 191,496 |
| 2025 ^{1**} | 01jan26 | 138,616 | 29,466 | 5,235 | 220 | 0 | 0 | 173,537 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

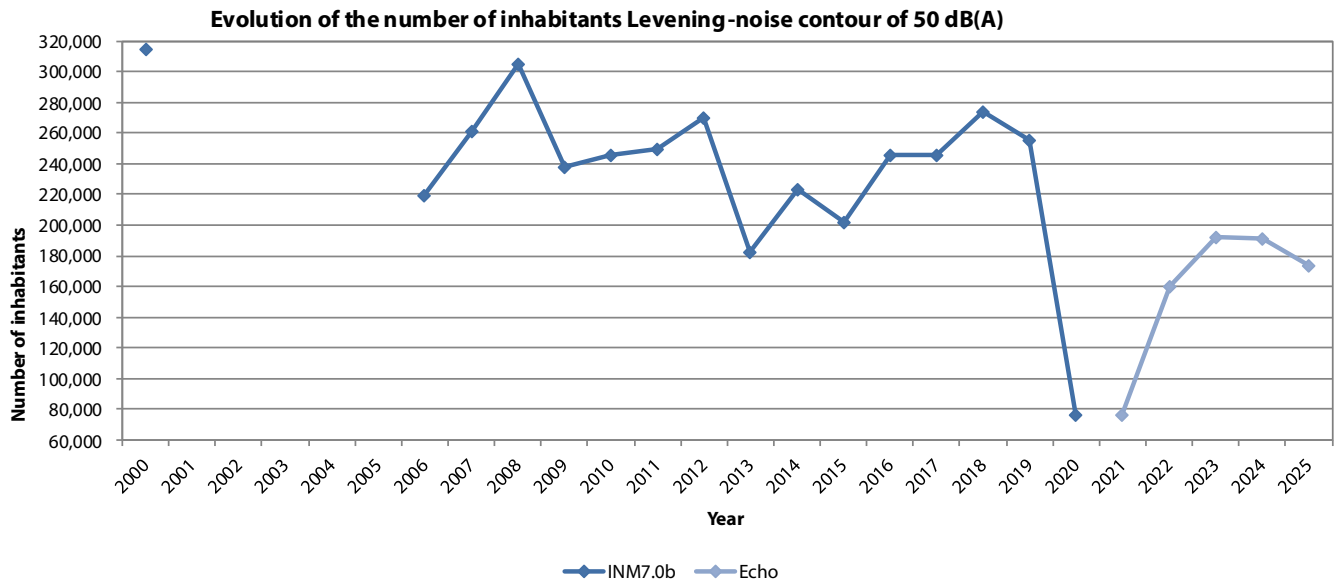


Figure 32: Evolution of the number of residents within the L_{evening} contours (2000, 2006-2025)

Table 48: Evolution of the number of residents within the L_{night} contours (2000, 2006-2025)

| Number of inhabitants | | L_{night} - contour zones in dB(A) (night 23:00-07:00) | | | | | | | | |
|-----------------------|-----------------|---|---------|--------|--------|-------|-------|-----|-------------|-------------|
| Year | Population data | 40-45 | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | >70 | Total (>40) | Total (>45) |
| 2000* | 01jan00 | | 139,440 | 57,165 | 18,384 | 8,394 | 1,325 | 72 | | 224,779 |
| 2001 | | | | | | | | | | |
| 2002 | | | | | | | | | | |
| 2003 | | | | | | | | | | |
| 2004 | | | | | | | | | | |
| 2005 | | | | | | | | | | |
| 2006* | 01jan03 | | 167,033 | 28,985 | 8,836 | 1,167 | 174 | 8 | | 206,202 |
| 2007* | 01jan06 | | 199,302 | 32,473 | 11,607 | 2,185 | 181 | 26 | | 245,772 |
| 2008* | 01jan07 | | 151,736 | 26,450 | 7,985 | 1,017 | 133 | 3 | | 187,323 |
| 2009* | 01jan07 | | 122,871 | 19,528 | 6,303 | 622 | 92 | 2 | | 149,418 |
| 2010* | 01jan08 | | 129,820 | 19,986 | 6,077 | 571 | 89 | 5 | | 156,548 |
| 2011* | 01jan08 | | 129,969 | 22,490 | 6,414 | 622 | 94 | 5 | | 159,594 |
| 2012* | 01jan10 | | 124,012 | 24,015 | 6,963 | 585 | 78 | 2 | | 155,655 |
| 2013* | 01jan10 | | 91,140 | 28,407 | 7,152 | 51 | 3 | 0 | | 126,754 |
| 2014* | 01jan11 | | 163,270 | 24,221 | 7,889 | 869 | 110 | 3 | | 196,362 |
| 2015* | 01jan11 | | 125,407 | 26,956 | 8,239 | 762 | 159 | 2 | | 161,524 |
| 2016* | 01jan11 | | 128,939 | 23,476 | 7,954 | 715 | 131 | 0 | | 161,216 |
| 017 ^{1*} | 01jan16 | | 106,964 | 27,127 | 7,484 | 469 | 66 | 0 | | 142,110 |
| 018 ^{1*} | 01jan17 | | 122,588 | 29,355 | 7,601 | 501 | 64 | 0 | | 160,109 |
| 019 ^{1*} | 01jan19 | | 127,079 | 27,978 | 8,065 | 529 | 66 | 0 | | 163,718 |
| 020 ^{1*} | 01jan20 | | 60,530 | 18,372 | 2,217 | 390 | 57 | 0 | | 81,566 |
| 021 ^{1**} | 01jan22 | | 77,128 | 25,889 | 1,479 | 412 | 0 | 0 | | 104,908 |
| 022 ^{1**} | 01jan23 | | 113,796 | 34,494 | 3,200 | 386 | 25 | 0 | | 151,901 |
| 023 ^{1**} | 01jan24 | 537,685 | 139,419 | 35,894 | 5,021 | 459 | 0 | 0 | 718,478 | 180,793 |
| 024 ^{1**} | 01jan25 | 537,968 | 141,773 | 33,785 | 5,708 | 479 | 12 | 0 | 719,725 | 181,757 |
| 025 ^{1**} | 01jan26 | 542,449 | 147,630 | 37,593 | 5,987 | 503 | 16 | 0 | 734,178 | 191,729 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

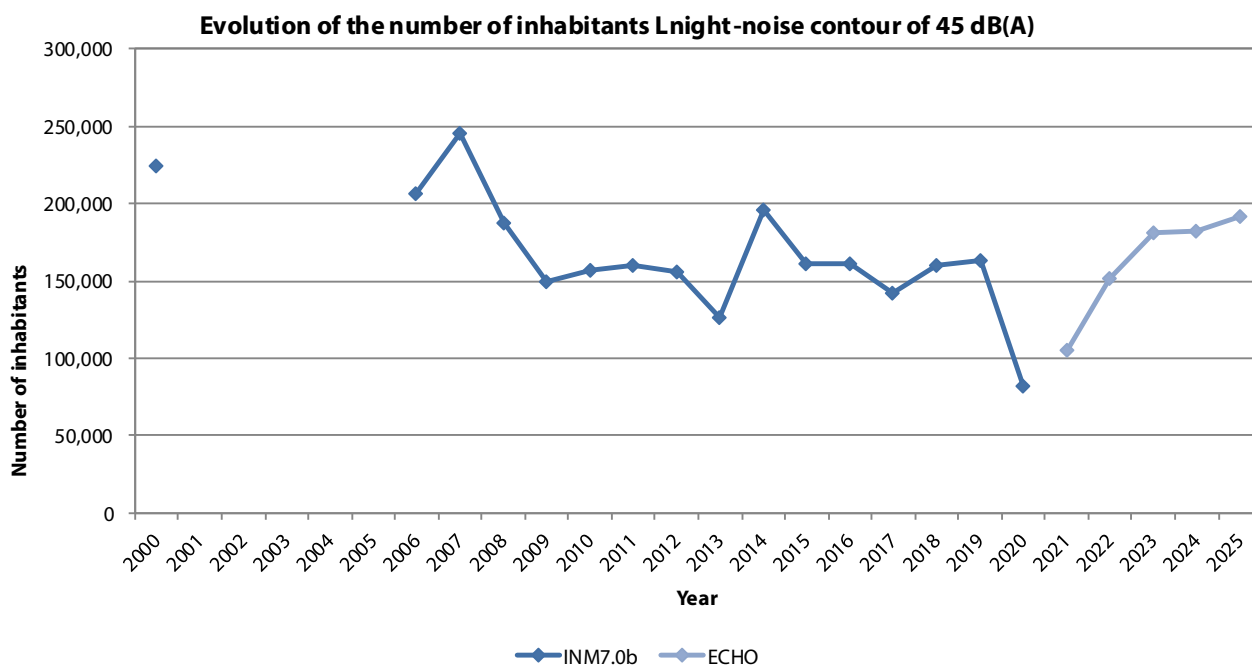


Figure 33: Evolution of the number of residents within the L_{night} contours (2000, 2006-2025)

Table 49: Evolution of the number of residents within the L_{den} contours (2000, 2006-2025)

| Number of inhabitants | | L _{den} - contour zones in dB(A) (d. 07h-19h, av. 19h-23h, n. 23h-07h) | | | | | | | | |
|-----------------------|-----------------|---|---------|---------|--------|--------|-------|-----|-------------|-------------|
| Year | Population data | 45-50 | 50-55 | 55-60 | 60-65 | 65-70 | 70-75 | >75 | Total (>45) | Total (>55) |
| 2000* | 01jan00 | | | 166,767 | 36,797 | 14,091 | 3,952 | 264 | | 221,871 |
| 2001 | | | | | | | | | | |
| 2002 | | | | | | | | | | |
| 2003 | | | | | | | | | | |
| 2004 | | | | | | | | | | |
| 2005 | | | | | | | | | | |
| 2006* | 01jan03 | | | 107,514 | 18,697 | 5,365 | 560 | 63 | | 132,198 |
| 2007* | 01jan06 | | | 147,349 | 19,498 | 6,565 | 946 | 82 | | 174,442 |
| 2008* | 01jan07 | | | 125,927 | 19,319 | 5,938 | 717 | 24 | | 151,925 |
| 2009* | 01jan07 | | | 87,766 | 15,105 | 4,921 | 404 | 9 | | 108,205 |
| 2010* | 01jan08 | | | 87,083 | 15,619 | 4,506 | 337 | 11 | | 107,556 |
| 2011* | 01jan08 | | | 90,988 | 15,941 | 4,664 | 362 | 13 | | 111,969 |
| 2012* | 01jan10 | | | 86,519 | 16,220 | 4,617 | 319 | 6 | | 107,680 |
| 2013* | 01jan10 | | | 56,516 | 16,517 | 3,994 | 197 | 5 | | 77,229 |
| 2014* | 01jan10 | | | 84,747 | 16,525 | 5,076 | 368 | 9 | | 106,725 |
| 2015* | 01jan11 | | | 72,628 | 17,721 | 5,244 | 428 | 55 | | 96,075 |
| 2016* | 01jan11 | | | 77,229 | 16,694 | 5,284 | 450 | 23 | | 99,680 |
| | 01jan16 | | | 70,139 | 17,645 | 5,264 | 257 | 0 | | 93,305 |
| | 01jan17 | | | 77,812 | 19,476 | 5,413 | 413 | 0 | | 103,114 |
| | 01jan19 | | | 72,561 | 19,231 | 5,448 | 383 | 0 | | 97,624 |
| | 01jan20 | | | 34,236 | 9,801 | 1,361 | 110 | 0 | | 45,508 |
| | 01jan22 | | | 40,787 | 9,371 | 931 | 30 | 0 | | 51,119 |
| | 01jan23 | | | 58,491 | 18,472 | 1,245 | 117 | 0 | | 78,326 |
| | 01jan24 | 723,261 | 368,185 | 65,425 | 21,920 | 1,727 | 143 | 0 | 1,180,661 | 89,215 |
| | 01jan25 | 738,872 | 373,192 | 63,944 | 22,227 | 1,846 | 161 | 0 | 1,200,242 | 88,178 |
| | 01jan26 | 675,003 | 390,789 | 69,620 | 23,871 | 1,696 | 177 | 0 | 1,161,066 | 95,364 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

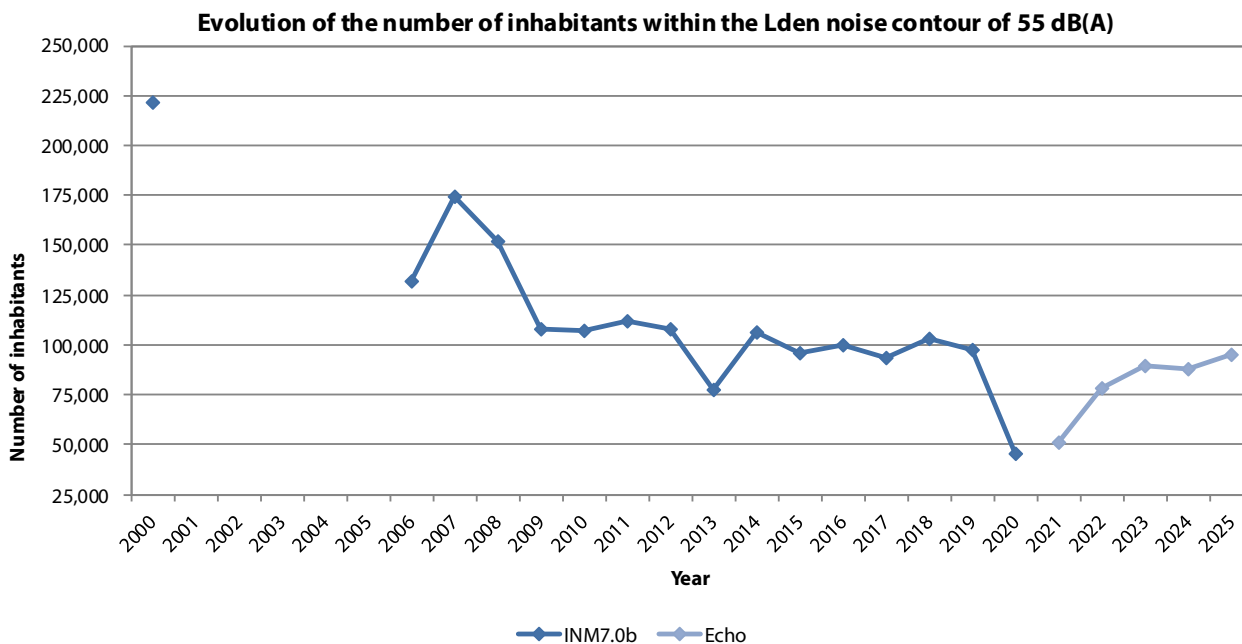


Figure 34: Evolution of the number of residents within the L_{den} contours (2000, 2006-2025)

Table 50: Evolution of the number of residents within the Freq.70,day contours (2024-2025)

| Number of inhabitants | | Freq.70,day - contour zones (day 07:00-19:00) | | | | | Total |
|-----------------------|-----------------|---|--------|--------|--------|-------|----------------|
| Year | Population data | 5-10 | 10-20 | 20-50 | 50-100 | >100 | |
| 2024 ^{1**} | 01jan25 | 116,059 | 54,667 | 16,834 | 10,302 | 4,769 | 202,631 |
| 2025 ^{1**} | 01jan26 | 146,864 | 76,816 | 28,733 | 14,638 | 6,109 | 273,160 |

¹ evaluation according to address

** Calculated with Echo

Table 51: Evolution of the number of residents within the Freq.70,evening contours (2019, 2024-2025)

| Number of inhabitants | | Freq.70,evening - contour zones (evening 19:00-23:00) | | | | Total |
|-----------------------|-----------------|---|--------|--------|--------|----------------|
| Year | Population data | 1-5 | 5-10 | 10-20 | >20 | |
| 2019 ^{1**} | 01jan22 | 190,261 | 26,510 | 11,829 | 11,460 | 240,060 |
| 2024 ^{1**} | 01jan25 | 226,651 | 23,904 | 13,665 | 9,825 | 274,045 |
| 2025 ^{1**} | 01jan26 | 280,736 | 32,604 | 14,980 | 15,032 | 343,352 |

¹ evaluation according to address

** Calculated with Echo

Table 52: Evolution of the number of residents within the Freq.70,night contours (2006-2025)

| Number of inhabitants | | Freq.70,night - contour zones (night 23:00-07:00) | | | | | Total |
|-----------------------|-----------------|---|--------|--------|-------|-----|---------|
| Year | Population data | 1-5 | 5-10 | 10-20 | 20-50 | >50 | |
| 2006 | | | | | | | |
| 2007 | | | | | | | |
| 2008 | | | | | | | |
| 2009 | | | | | | | |
| 2010* | 01jan08 | 239,529 | 23,583 | 12,968 | 2,597 | 0 | 278,677 |
| 2011* | 01jan08 | 232,090 | 22,587 | 13,071 | 3,261 | 0 | 271,010 |
| 2012* | 01jan10 | 195,400 | 21,774 | 12,858 | 4,078 | 0 | 234,110 |
| 2013* | 01jan10 | 158,701 | 22,985 | 15,876 | 1,774 | 0 | 199,913 |
| 2014* | 01jan11 | 240,106 | 19,794 | 13,018 | 6,333 | 0 | 279,251 |
| 2015* | 01jan11 | 167,925 | 22,934 | 13,681 | 6,400 | 0 | 210,939 |
| 2016* | 01jan11 | 183,776 | 18,616 | 14,079 | 6,151 | 0 | 222,622 |
| 2017 ^{1*} | 01jan16 | 155,257 | 19,411 | 14,408 | 5,854 | 0 | 194,930 |
| 2018 ^{1*} | 01jan17 | 172,835 | 21,478 | 14,948 | 6,020 | 0 | 215,281 |
| 2019 ^{1*} | 01jan19 | 184,024 | 20,072 | 15,028 | 6,574 | 0 | 225,698 |
| 2020 ^{1*} | 01jan20 | 89,653 | 17,902 | 6,243 | 496 | 0 | 114,295 |
| 2021 ^{1**} | 01jan22 | 80,278 | 18,228 | 10,346 | 0 | 0 | 108,852 |
| 2022 ^{1**} | 01jan23 | 117,025 | 21,970 | 14,417 | 1,288 | 0 | 154,700 |
| 2023 ^{1**} | 01jan24 | 155,985 | 17,916 | 15,518 | 1,641 | 0 | 191,060 |
| 2024 ^{1**} | 01jan25 | 135,291 | 14,842 | 15,753 | 4,174 | 0 | 170,060 |
| 2025 ^{1**} | 01jan26 | 178,188 | 27,504 | 18,842 | 6,115 | 0 | 230,649 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

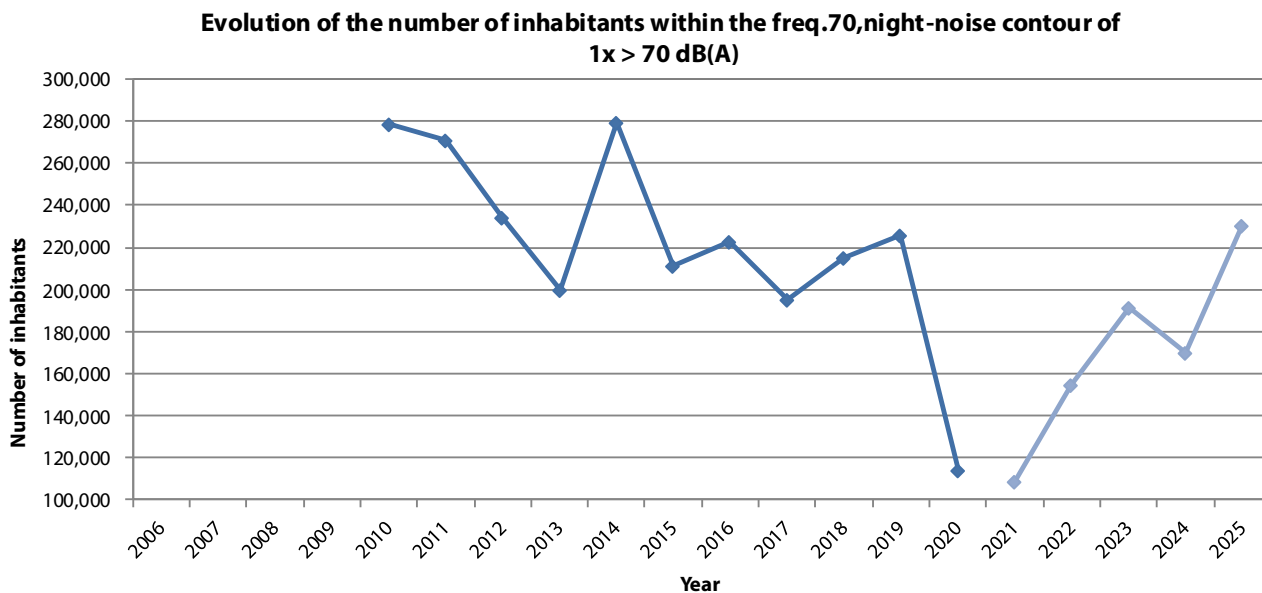


Figure 35: Evolution of the number of residents within the Freq.70,night contours (2006-2025)

Table 53: Evolution of the number of residents within the Freq.60,day contours (2024-2025)

| Number of inhabitants | | Freq.60,day - contour zones (day 07:00-19:00) | | | | |
|-----------------------|-----------------|---|---------|---------|------|---------|
| Year | Population data | 50-100 | 100-150 | 150-200 | >200 | Total |
| 2024 ^{1**} | 01jan25 | 137,579 | 27,690 | 12,231 | 0 | 177,500 |
| 2025 ^{1**} | 01jan26 | 159,723 | 33,504 | 9,223 | 0 | 202,450 |

¹ evaluation according to address

** Calculated with Echo

Table 54: Evolution of the number of residents within the Freq.60,evening contours (2019, 2024-2025)

| Number of inhabitants | | Freq.70,evening - contour zones (evening 19:00-23:00) | | | | |
|-----------------------|-----------------|---|--------|---------|--------|---------|
| Year | Population data | 10-15 | 15-20 | 20-30 | >30 | Total |
| 2019 ^{1**} | 01jan20 | 106,110 | 72,045 | 134,909 | 21,307 | 334,372 |
| 2024 ^{1**} | 01jan25 | 117,215 | 77,588 | 73,568 | 40,728 | 309,099 |
| 2025 ^{1**} | 01jan26 | 122,051 | 86,830 | 89,589 | 47,013 | 345,483 |

¹ evaluation according to address

** Calculated with Echo

Table 55: Evolution of the number of residents within the Freq.60,night contours (2006-2025)

| Number of inhabitants | | Freq.60,night - contour zones in dB(A) | | | | |
|-----------------------|-----------------|--|--------|--------|--------|---------|
| Year | Population data | 10-15 | 15-20 | 20-30 | >30 | Total |
| 2006 | | | | | | |
| 2007 | | | | | | |
| 2008 | | | | | | |
| 2009 | | | | | | |
| 2010* | 01jan08 | 62,090 | 9,411 | 21,231 | 3,262 | 95,994 |
| 2011* | 01jan08 | 65,246 | 9,522 | 20,695 | 5,450 | 100,913 |
| 2012* | 01jan10 | 80,911 | 8,723 | 20,642 | 7,009 | 117,284 |
| 2013* | 01jan10 | 52,151 | 14,679 | 20,269 | 6,340 | 93,438 |
| 2014* | 01jan11 | 79,725 | 27,741 | 18,637 | 12,317 | 138,420 |
| 2015* | 01jan11 | 84,429 | 12,453 | 24,502 | 10,351 | 131,736 |
| 2016* | 01jan11 | 81,235 | 20,356 | 21,869 | 8,779 | 132,238 |
| 2017 ^{1*} | 01jan16 | 93,532 | 15,687 | 23,488 | 9,538 | 142,245 |
| 2018 ^{1*} | 01jan17 | 98,609 | 16,849 | 24,728 | 10,016 | 150,202 |
| 2019 ^{1*} | 01jan19 | 110,835 | 17,770 | 24,096 | 10,817 | 163,518 |
| 2020 ^{1*} | 01jan20 | 30,334 | 10,565 | 4,365 | 539 | 45,803 |
| 2021 ^{1**} | 01jan22 | 26,888 | 28,001 | 10,397 | 740 | 66,026 |
| 2022 ^{1**} | 01jan23 | 73,064 | 19,541 | 26,822 | 3,866 | 123,293 |
| 2023 ^{1**} | 01jan24 | 83,990 | 19,750 | 28,279 | 6,836 | 138,855 |
| 2024 ^{1**} | 01jan25 | 93,600 | 31,010 | 26,424 | 10,557 | 161,591 |
| 2025 ^{1**} | 01jan26 | 116,766 | 17,979 | 35,081 | 11,777 | 181,603 |

¹ evaluation according to address

* Calculated with INM 7.0b, ** Calculated with Echo

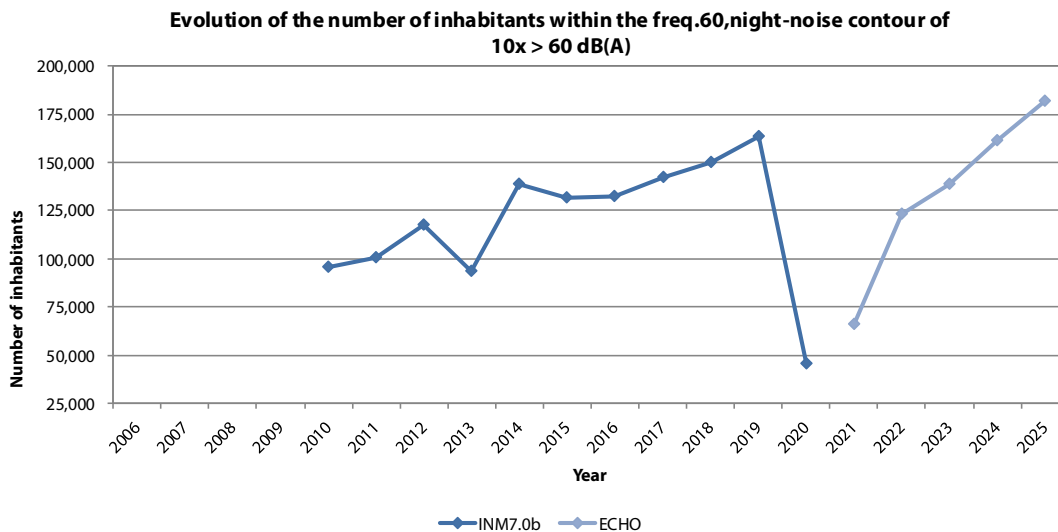


Figure 36: Evolution of the number of residents within the Freq.60,night contours (2006-2025)

Appendix F. Impact of change in calculation method

The following table shows the impact on the calculated noise level for the main changes in the calculation method.

Table 56: Description of the impact per change in the calculation method of the contours.

| Change | Impact on the noise levels |
|---|--|
| Calculation model change: INM -> Echo | The most significant change as a consequence of applying Doc. 29 calculation method, is the advice to use a more recent method to determine atmospheric absorption. This leads to a rise in the noise levels. The impact close to the airport is small; further away, the differences can be 1 to 2 dB. |
| Updating source data | The correction of the noise levels for approaches by Airbus aircraft lead to higher noise levels for approaches. As such, the noise impact for Brussels Airport is increased to the order of 1 dB (larger contours). The addition of data of a number of aircraft has a marginal effect. |
| Correction factor compared to the proxy aircraft type | The application of the factor 'corrects' for the differences in noise levels of the proxy aircraft type in the calculation and the actual aircraft type. The application of the correction factor leads to around 1 dB lower noise level for departures and 0.5 dB for arrivals and thus to smaller contours. |
| Modelling based on actual flight paths | A calculation based on the actual flight paths is locally more accurate and can have an effect on the location of the contours. The impact overall is, however, marginal. |
| Modelling departures based on NADP1 procedure | In line with the prescribed departure procedure at Brussels Airport, departures are modelled based on the NADP1 instead of the NADP2 procedure. The calculated noise levels for take-offs are thus 1 to 3 dB lower in the area under the flight path at c. 5 to 10 km measured from the beginning of the runway and around 1 dB higher in the area to the side of the flight path. |
| Distinction in approach profiles | By taking account of 'level flying' (whereby a section of the approach is flown at a fixed altitude) in the modelling, the calculated noise levels for approaches are somewhat higher. The impact is only visible at a greater distance (10+ km) before the runway. |

Appendix G. Files supplied

Radar data for 2025 (source: BAC-TANOS)

| | | |
|---------------------------|------------|--------------|
| 2025-JAN-JUN_flights.xlsx | 08/01/2026 | 27,561 KB |
| 2025-JAN-JUN_ops.csv | 08/01/2026 | 1,189,978 KB |
| 2025-JUL-DEC_flights.xlsx | 08/01/2026 | 29,761 KB |
| 2025-JUL-DEC_ops.csv | 08/01/2026 | 1,279,010 KB |

Flight data for 2025 (source: BAC-CDB)

| | | |
|-----------------------------|------------|------------|
| ENV002_AT_202501_202512.csv | 08/01/2026 | 142,463 KB |
|-----------------------------|------------|------------|

Entry point data per flight for 2025 (source: Skeyes)

| | | |
|--------------------|------------|-----------|
| EBBR_2025_DEP.xlsx | 08/01/2026 | 10,187 KB |
|--------------------|------------|-----------|

Weather data for 2025 (source: BAC-TANOS)

| | | |
|----------------|------------|----------|
| 2025_meteo.xls | 08/01/2026 | 1,234 KB |
|----------------|------------|----------|

Noise events for 2025 (source: BAC-TANOS / dOMG)

| | | |
|---------------------------------|------------|-----------|
| 2025-01_03_events TANOS.xlsx | 08/01/2026 | 82,970 KB |
| 2025-01_06_events OMGEVING.xlsx | 08/01/2026 | 73,365 KB |
| 2025-04_06_events TANOS.xlsx | 08/01/2026 | 87,912 KB |
| 2025-07_09_events TANOS.xlsx | 08/01/2026 | 77,008 KB |
| 2025-07_12_events OMGEVING.xlsx | 08/01/2026 | 68,824 KB |
| 2025-09_12_events TANOS.xlsx | 08/01/2026 | 73,845 KB |

Hourly reports from the noise measuring network for 2025 (BAC-TANOS / dOMG)

| | | |
|-----------------------------------|------------|-----------|
| status_2025_dOMG.xls | 08/01/2026 | 1,213 KB |
| uur-rapporten_2025_0106_TANOS.xls | 08/01/2026 | 10,185 KB |
| uur-rapporten_2025_0712_TANOS.xls | 08/01/2026 | 10,382 KB |

Address files for Flanders, Brussels and Wallonia

| | | |
|---|------------|------------------------|
| Centraal Referentieadressenbestand (CRAB) | 01/01/2026 | Government of Flanders |
| OSLO business estates | 01/01/2026 | Government of Flanders |
| UrBis-Adm | 01/01/2026 | CIBG |
| ICAR - Address Points Wallonia | 01/01/2026 | Walloon Government |

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