Application form aggregated data

Via this form, aggregated data can be requested from Statbel. A correctly filled out application should, on the one hand, enable the quick and efficient communication of the requested data, but on the other hand, it also enables Statbel to make a correct assessment in terms of data protection.

Based on the modalities of the application and the related risks, the Statbel DPO committee will decide whether or not a confidentiality contract should be concluded. It is therefore important that all relevant information regarding data protection is provided in a concise but nevertheless accurate manner.

How to fill in this form:

- The optional items should enable Statbel to quickly draw up a confidentiality contract if the DPO committee considers that a contract is necessary.
- Please provide in section ‘1. Description of the data requested - Proportionality’ a brief description of the research context and indicate specifically which data from Statbel is intended.
- If the data is for internal use only, you do not need to complete section ‘2. Dissemination modalities’.
- For section '3. Internal security measures’, it is sufficient to estimate the number of persons having direct access to the data.
- Regularity refers to the frequency with which you need updates (e.g. one-off request, monthly, annually, ...).
- The storage period refers to the duration the data in aggregated form will be kept for the purpose of conducting the research before it is destroyed.
- Other aspects that may be relevant with regard to data protection should be mentioned under the item 'Other: describe’.

Please contact the relevant Statbel statistician or statbel.datarequests@economie.fgov.be if you have any further questions.

1. Identification of the request	
Name of the project for which you request data	CARES (Citywide urban form and Air quality Risk Evaluation Study)
Which statistician of Statbel did you contact before submitting this request?	Patrick Lusyne

2. Indicate the reason for your request:
☐ aggregated data for internal use
☒ aggregated data for dissemination purposes - open data excluded
☐ Aggregated data dissemination via open data

3. Data of the institution making the request	
Name	Université catholique de Louvain
Legal status	Private organism of public utility
CBE number	0419.052.272
Street	place de l'Université
Number	1
Bus	Click here to type text
Postal code	1348
City	Louvain-la-Neuve

4. Personal data of the Controller or the legal representative of the institution requesting the data	
Name	Lepot
First name	Xavier
Function	Director of the Research Administration
E-mail address	[redacted]
Telephone number	[redacted]

5. Contact details of contact person	
Name	AYDIN
First name	Nese
Function	Researcher
E-mail address	[redacted]
Telephone number	[redacted]

6. Contact details of the Data Protection Officer	
Name	Rémy
First name	Michèle
Function	DPO
E-mail address	privacy@uclouvain.be

7. Description of the data requested / research plan	
Databases	Requested Data: Causes of death within the Brussels Capital Region, categorized by statistical sectors, while specifying people living in the

	same statistical sector for more than 5 years, further broken down by age groups (0–5, 6–12, 13–18, 18–44, 45–64, 65–74, 75–84, and ≥85 years) Additional datasets to be used in conjunction with this (external spatially aggregated open data and Statbel open data – via spatial mapping) include: -Air Quality Data from Curizienair and IRCELINE -Urban Environment Data (Building density, Vegetation density, Road density, Road speed) -Socio economic and demographic data (Population density, Income, Vehicles per house)
Variables + detail	A00-R99 – All cause mortality (for each statistical sector per year from 2000 onwards). J00-J99 – Mortality for respiratory diseases (for each statistical sector per year from 2000 onwards). F04-F99 - Mortality for psychiatric disorders (for each statistical sector per year from 2000 onwards). I00-I99 – Diseases of the circulatory system (for each statistical sector per year from 2000 onwards). J40-J47 – Chronic lower respiratory diseases disorders (for each statistical sector per year from 2000 onwards). J12-J18 – Influenza and pneumonia except seasonal and not identified (for each statistical sector per year from 2000 onwards). J20-J22 - Acute Lower Respiratory Infection (for each statistical sector per year from 2000 onwards). C33-C34 - Neoplasm of trachea, bronchus and lung (for each statistical sector per year from 2000 onwards).
Proportionality	The requested data on causes of death at the statistical sector level is essential for my study as it enables a detailed analysis of the spatial and temporal relationships between urban form, air quality, and health outcomes. The specific causes of death—such as respiratory diseases, psychiatric disorders, circulatory system diseases, and neoplasms—are selected based on extensive literature that highlights their strong associations with environmental and socio-economic factors, particularly air pollution and urban form. Statistical sector-level granularity is crucial to capture localized variations in air quality, urban density, vegetation, and socio-economic conditions, which are known to significantly impact health outcomes. This data will be integrated with air quality data (Curizienair and IRCELINE), urban environment data (e.g., building density, vegetation density, road density), and socio-economic and demographic data to assess how urban form and air pollution contribute to health risks. The focus on specific causes of death, such as chronic and acute respiratory diseases, is particularly relevant given their well-documented links to air pollution exposure, while other categories like circulatory diseases and psychiatric disorders provide a broader understanding of urban health risks. By grounding the selection of these causes in existing literature, this study ensures a scientifically robust approach to

	evaluating the health impacts of urban form and air quality, ultimately supporting evidence-based urban planning and public health interventions in the Brussels Capital Region.
8. Dissemination modalities	
Description of planned dissemination products	The statistical analysis for the "Citywide Urban Form and Air Quality Risk Evaluation Study" will involve a combination of methods to explore the relationships between urban form, air quality, and health outcomes. Correlation analysis will be used to identify and quantify the strength and direction of associations between variables such as air pollution levels, urban density, vegetation coverage, socio-economic factors, and cause-specific mortality rates. Clustering analysis will be applied to group statistical sectors with similar characteristics in terms of urban form, air quality, and health outcomes, allowing for the identification of spatial patterns and high-risk areas. Additionally, regression analysis, including multivariate and spatial regression models, will be employed to assess the impact of multiple factors simultaneously and to account for spatial dependencies in the data. Time-series analysis will be used to evaluate trends and changes in mortality rates and air quality over the years, while principal component analysis (PCA) may be applied to reduce dimensionality and identify key factors driving variations in the data. These methods, combined, will provide a comprehensive understanding of the complex interactions between urban form, air quality, and health, enabling evidence-based recommendations for urban planning and public health policies.
Safety measures	I assure that the analysis will not involve directly reporting the numbers of the statistical sectors; instead, the results will be presented as ratios or aggregated data. If any specific numbers are used, they will be appropriately masked to ensure confidentiality and compliance with data protection regulations.
9. internal security measures	
Storage data	Server of the Louvain research institute for Landscape, Architecture, Built environment (LAB) in UCLouvain
Number of persons with access to data	4
10. Other provisions / Remarks	
Regularity	1 time
Storage period	The data will be retained for a period of five years to support publication purposes and potential follow-up research.
Other: describe	Click here to type

For the applicant, **Nese AYDIN**
Post-Doc Researcher

Date: **11/03/2025**

Signature