1. OVERVIEW
    1.1. Scope

The INSPIRE directive, specifically Directive 2007/2/EC, mandates the creation of a European spatial data infrastructure to ensure the interoperability and accessibility of spatial data across member states. Implementing Rules and Technical Guidelines specify common data models, code lists, and metadata to be used when exchanging spatial datasets. This regulatory framework ensures that datasets like Transport Network - Air are standardized and can be seamlessly integrated with other thematic datasets.

Useful links:

[High-value datasets – an overview through visualisation | data.europa.eu](#)

[INSPIRE Knowledge base - European Commission](#)


    1.2. Content
        ✓ The dataset contains an aeronautical information collection providing the source for the INSPIRE application schema for the theme Air Transport Network within the Grand Duchy of Luxembourg.
            o *Aerodrome nodes*
            o *Aerodrome areas*
            o *Airspace areas*
            o *Apron areas*
            o *Designated points*
            o *Navaid location*
            o *Runway areas*
            o *Runway points*
            o *Taxiway areas*
            o *Procedures (SID, STAR, IAC)*
            o *Touchdown - Lift off points*


    1.3. Update
        ✓ The update frequency isn't set formally.
        ✓ Disclaimer: This dataset is provided in compliance with the INSPIRE directive. Updates may not occur as frequently as those in the national Aeronautical Information Publication (AIP). For the most current and accurate information, please refer to the official source ([https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Main/html/index-en-GB.html](https://ops.skeyes.be/html/belgocontrol_static/eaip/eAIP_Main/html/index-en-GB.html)). This data should not be used for operational purposes in aviation.


    1.4. Extent
        ✓ The data included in this dataset cover the aeronautical information within the boundaries of the territory of the Grand Duchy of Luxembourg.

✓ Aeronautical information related to flight procedures for ELLX - Luxembourg Findel Airport (Standard Instrument Departure, Standard Instrument Arrival and Instrument Approach Procedure, Designated Point) outside the boundaries of the Grand Duchy of Luxembourg are included.

✓ Aeronautical information related to Airspace Areas for ELLX - Luxembourg Findel Airport outside the boundaries of the Grand Duchy of Luxembourg are also included except those from the Upper Airspace.

## 1.5. Coordinate Reference system

✓ This dataset uses the national LUREF (EPSG: 2169) coordinate reference system.

## 1.6. Files and format

✓ Geopackage file : TRANSPORT_AIR_GDLuxembourg.gpkg

✓ Keyhole Markup Language file : TRANSPORT_AIR_GDLuxembourg.kmz

✓ Documentation : TRANSPORT_AIR_GDLuxembourg.pdf

## 2. LAYERS AND ATTRIBUTES

### 2.1. AerodromeArea

A defined area on land or water (including any buildings, installations and equipment) intended to be used either wholly or in part for the arrival, departure and surface movement of aircraft and/or helicopters.

| *Attributes* | | *POLYGON* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| Shape_Lenght | Perimeter in meters of the object. | Double |
| Shape_Area | Area in square meters. | Double |

### 2.2. Aerodrome Node

Node located at the aerodrome reference point of an airport/heliport, which is used to represent it in a simplified way.

| *Attributes* | | *POINT* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designatorIATA | The three letter IATA designator of the aerodrome (airport/heliport). | Text |
| locationIndicatorICAO | The four letter ICAO location indicator of the aerodrome (airport/heliport), as listed in ICAO DOC 7910. | Text |
| aerodromeCategory | Aerodrome category concerning the scope and importance of the air traffic services offered from and to it.<br>• *domesticNational:* Aerodrome serving domestic national air traffic services.<br>• *domesticRegional:* Aerodrome serving domestic regional air traffic services.<br>• *international:* Aerodrome serving international air traffic services. | Text |
| aerodromeType | A code specifying the type of aerodrome. | Text |

| | | |
|---|---|---|
| | • *aerodromeHeliport:* Aerodrome with heliport landing area. <br> • *aerodromeOnly:* Aerodrome only. <br> • *heliportOnly:* Heliport only. <br> • *landingSite:* Landing site. | |
| altitude | The aerodrome elevation as the vertical distance between the highest point of the landing area of an aerodrome and mean sea level. In meters, above the geoid 2008. <br> NOTE This might be different from the elevation of the Aerodrome Reference Point. | Double |
| currentStatus | State of an air transport network element with regards to its completion and use. <br> • *decommissioned:* The facility is no longer used and is being or has been decommissioned. <br> • *disused*: The facility is no longer used but is not being or has not been decommissioned. <br> • *functional:* The facility is functional. <br> • *projected:* The facility is being designed. Construction has not yet started. <br> • *under construction:* The facility is under construction and not yet functional. This applies only to the initial construction of the facility and not to maintenance work. | Text |
| significantPoint | Attribute which indicates whether the node is or is not a significant point. <br> • *true* <br> • *false* | Text |

## 2.3. AirspaceArea

A defined volume in the air, described as horizontal projection with vertical limits.

| *Attributes* | | *POLYGON* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| AirspaceAreaType | A code indicating the general structure or characteristics of a particular airspace. <br> • *ATZ:* Airport Traffic Zone. Airspace of defined dimensions established around an airport for the protection of airport traffic. Description: ICAO Recognized. <br> • *CTA:* Control area. A controlled airspace extending upwards from a specified limit above the earth. Description: ICAO Recognized. <br> • *CTR:* Control zone. A controlled airspace extending upwards from the surface of the earth to a specified upper limit. Description: ICAO Recognized. <br> • *D:* Danger area. Airspace of defined dimensions within which activities dangerous to the flight of aircraft may exist at specified times. Description: ICAO Recognized. <br> • *FIR:* Flight information region. Airspace of defined dimensions within which flight information service and alerting service are provided. Description: ICAO Recognized. Might, for example, be used if service provided by more than one unit. <br> • *P:* Prohibited area. Airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is prohibited. Description: ICAO Recognized. <br> • *R:* Restricted area. Airspace of defined dimensions, above the land areas or territorial waters of a State, within which the flight of aircraft is restricted in accordance with certain specified conditions. Description: ICAO Recognized. <br> • *TMA:* Terminal control area. Control area normally established at the confluence of ATS routes in the vicinity of one or more major aerodromes. Description: Non-ICAO Recognized. Mainly used in Europe under the Flexible Use of Airspace concept. <br> • *UIR:* Upper flight information region (UIR). An upper airspace of defined dimensions within which flight information service and alerting service are provided. Description: Non-ICAO Recognized. Each state determines its definition for upper airspace. | Text |
| Designator | Textual designation of the object. | Text |
| UpperAltitudeLimit | Altitude that defines the upper limit of an air transport network object. | Text |
| LowerAltitudeLimit | Altitude that defines the lower limit of an air transport network object. | Text |
| Shape_Lenght | Perimeter in meters of the object. | Double |
| Shape_Area | Area in square meters. | Double |

## 2.4. ApronArea

A defined area, on a land aerodrome/heliport, intended to accommodate aircraft/helicopters for purposes of loading and unloading passengers, mail or cargo, and for fuelling, parking or maintenance.

| *Attributes* | | *POLYGON* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| surfaceComposition | The composition of an aerodrome/heliport related surface.<br>• *asphalt*<br>• *concrete*<br>• *grass* | Text |
| designator | Textual designation of the object. | Text |
| Shape_Lenght | Perimeter in meters of the object. | Double |
| Shape_Area | Area in square meters. | Double |

## 2.5. DesignatedPoint

A geographical location not marked by the site of a radio navigation aid, used in defining an ATS route, the flight path of an aircraft or for other navigation or ATS purposes.

| *Attributes* | | *POINT* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designator | Textual designation of the object. | Text |
| significantPoint | Attribute which indicates whether the node is or is not a significant point.<br>• *true*<br>• *false*<br>Exception: ARCKY, DEMUL, GOPAS, IBERA, IDOSA, LIMGO, LIPNI, NISIV, ROBON, ROUSY are significant points in the eAIP despite that the values of the attribute are here equal to false. | Text |

## 2.6. InstrumentApproachProcedure

A series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en route obstacle clearance criteria apply.

| *Attributes* | | *POLYLINE* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designator | Textual designation of the object. | Text |
| fictitious | When an airport/heliport is not connected with a standardized airway connector to the rest of the air network, this object can be used as a fictitious connector between the airport/heliport and a significant point on one or more ATS routes - for example for VFR (Visual Flight Rules) flights.<br>• *true*<br>• *false* | Text |
| Shape_Lenght | Length in meters of the object. | Double |

## 2.7. Navaid

One or more Navaid Equipments providing navigation services.

| Attributes | | POINT |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| navaidType | Types of Navaid Services.<br>• *DME:* Distance Measuring Equipment.<br>• *ILS:* Instrument Landing System.<br>• *ILS-DME:* ILS with collocated DME.<br>• *LOC:* Localizer.<br>• *LOC-DME:* LOC and DME collocated.<br>• *MKR:* Marker Beacon.<br>• *MLS:* Microwave Landing System.<br>• *MLS-DME:* MLS with collocated DME.<br>• *NDB:* Non-Directional Radio Beacon.<br>• *NDB-DME :* NDB and DME collocated.<br>• *NDB-MKR:* Non-Directional Radio Beacon and Marker Beacon.<br>• *TACAN:* actical Air Navigation Beacon.<br>• *TLS:* Transponder Landing System.<br>• *VOR:* VHF Omnidirectional Radio Range.<br>• *VOR-DME:* VOR and DME collocated.<br>• *VORTAC:* VOR and TACAN collocated. | Text |
| designator | Textual designation of the object. | Text |

## 2.8. RunwayArea

A defined rectangular area on a land aerodrome/heliport prepared for the landing and take-off of aircraft.

| Attributes | | POLYGON |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designator | Textual designation of the object. | Text |
| runwayType | The type of runway, either runway for airplanes or final approach and take off area (FATO) for helicopters.<br>• *FATO:* Final Approach and Take Off Area for helicopters.<br>• *runway:* Runway for airplanes. | Text |
| length | The physical length in meters of the element. | Double |
| width | The physical width in meters of the element. | Double |
| surfaceComposition | The composition of an aerodrome/heliport related surface.<br>• *asphalt*<br>• *concrete*<br>• *grass* | Text |
| Shape_Lenght | Perimeter in meters of the object. | Double |
| Shape_Area | Area in square meters. | Double |

## 2.9. RunwayCentrelinePoint

An operationally significant position on the center line of a runway direction.

| *Attributes* | | *POINT* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| pointRole | The role of the point along the runway direction centreline.<br>• end: Physical end of a runway direction.<br>• mid: The mid point of the runway.<br>• start: Physical start of a runway direction.<br>• threshold: Threshold. | Text |
| significantPoint | Attribute which indicates whether the node is or is not a significant point.<br>• true<br>• false | Text |

## 2.10. StandardInstrumentArrival

A designated instrument flight rule (IFR) arrival route linking a significant point, normally on an ATS route, with a point from which a published instrument approach procedure can be commenced.

| *Attributes* | | *POLYLINE* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designator | Textual designation of the object. | Text |
| fictitious | When an airport/heliport is not connected with a standardized airway connector to the rest of the air network, this object can be used as a fictitious connector between the airport/heliport and a significant point on one or more ATS routes - for example for VFR (Visual Flight Rules) flights.<br>• *true*<br>• *false* | Text |
| Shape_Lenght | Length in meters of the object. | Double |

## 2.11. StandardInstrumentDeparture

A designated instrument flight rule (IFR) departure route linking the aerodrome or a specific runway of the aerodrome with a specified significant point, normally on a designated ATS route, at which the en-route phase of a flight commences.

| *Attributes* | | *POLYLINE* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| designator | Textual designation of the object. | Text |
| fictitious | When an airport/heliport is not connected with a standardized airway connector to the rest of the air network, this object can be used as a fictitious connector between the airport/heliport and a significant point on one or more ATS routes - for example for VFR (Visual Flight Rules) flights.<br>• *true*<br>• *false* | Text |
| Shape_Lenght | Length in meters of the object. | Double |

### 2.12. TaxiwayArea

A defined path at an aerodrome/heliport established for the taxiing of aircraft/helicopters and intended to provide a link between one part of the aerodrome and another.

| *Attributes* | | *POLYGON* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| surfaceComposition | The composition of an aerodrome/heliport related surface.<br>• *asphalt*<br>• *concrete*<br>• *grass* | Text |
| designator | Textual designation of the object. | Text |
| Shape_Lenght | Perimeter in meters of the object. | Double |
| Shape_Area | Area in square meters. | Double |

### 2.13. TouchDownLiftOff

A load bearing area on which a helicopter may touch down or lift-off.

| *Attributes* | | *POINT* |
|---|---|---|
| OBJECTID | Unique Identifier of the object. | Object ID |
| Shape | Geometry of the object. | Geometry |
| surfaceComposition | The composition of an aerodrome/heliport related surface.<br>• *asphalt*<br>• *concrete*<br>• *grass* | Text |
| designator | Textual designation of the object. | Text |
| length | Perimeter in meters of the object. | Double |
| width | Area in square meters. | Double |
| significantPoint | Attribute which indicates whether the node is or is not a significant point.<br>• true<br>• false | Text |