ENERFUND – Identifying and rating deep renovation opportunities

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Article 2a EPBD Long-term Renovation Strategy

- Data are needed for making investment decisions to improve energy efficiency and achieve CO2-reduction.
- The legal framework imposes tightened obligations (amended EPBD, Governance Regulation).
- Digitalization and GIS as well as INSPIRE Directive and PSI Directive create new opportunities.
- ENERFUND was funded by Horizon 2020 and developed an approach for making use of EPC data.
ENERFUND assists in identifying building renovation opportunities and thus in developing large-scale renovation projects contributing to decarbonizing the European building stock.

- Based on open data, mainly taken from EPC
- Includes now data from > 12 countries
- Allows the users to single out countries, regions or cities
- Filtering options allow for selecting buildings according to specific parameters

This project has received funding from the European Union’s Horizon 2020 programme under Grant Agreement No 695873
Ireland (all, except domestic)

Compare Buildings
You can add buildings to the comparison list by clicking on markers.

Local Authority: Ireland
Post Code: D03KV56
Address: Abbey House 15-17 Abbey Street Upper Dublin 1
Property Type: Office

Energy Rating: G
- Total floor area: 1381m²
- Windows Energy Efficiency: Very Poor
- Walls Energy Efficiency: Good
- Roof Energy Efficiency: Average
- Main Heat Fuel Type: Grid Supplied Electricity
- Year of construction: 1966
- Enerfund Score: Coming Soon

Efficiency
- Walls Energy Efficiency: Very Poor
- Roof Energy Efficiency: Average
- Windows Energy Efficiency: Good

Construction
- Area (m²): 1381

Main Heat Fuel Type
- Diesel Fuel Appliances
- LPG
- Coal
- Waste Heat
- Anthracite
- Biomass
- Biogas
- Grid Supplied Electricity
- Oil
- Natural Gas
- District Heating
- Smokeless Fuel (inc. Coke)

Building Type
- Office
- Launderette
- Primary school
- Gas station/train station/seaport terminal
- Community/day centre
- Primary health care buildings
- Emergency services
- Miscellaneous 24hr activities
- Theatres/Chinemas/music halls and auditoria
- Secondary school
- Restaurants/public house
- Retail
- Hospital
- Social clubs
- Dwelling
- Airport terminals
- Retail warehouses
- Industrial process building
- Libraries/museums/galleries
- Telephone exchanges
- Prisons
- Warehouse and storage
- Crown and county courts
- Hotel
- Sports ground arena
- Sports centre/leisure centre
- Further education universities
- Workshops/maintenance depot
- Nursing residential homes and hostels
Data parameters per building and per country

<table>
<thead>
<tr>
<th>Country</th>
<th>Current rating</th>
<th>Potential rating</th>
<th>ENERFUND score</th>
<th>Walls energy eff.</th>
<th>Windows energy eff.</th>
<th>Roof energy eff.</th>
<th>Main fuel type (heating)</th>
<th>Area (m²)</th>
<th>Building type</th>
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Uncertainty: Is the data under the GDPR?

- The principles of data protection should apply to any information concerning an **identified or identifiable natural person**.
- The principles of data protection should therefore **not apply to anonymous information**, namely information which does not relate to an identified or identifiable natural person or to personal data rendered anonymous in such a manner that the data subject is not or no longer identifiable.
- An **identifiable natural person** is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.
- There is a **range of interpretation regarding “identifiable”**: relative or absolute interpretation.

Address of the building is linked with the building $\rightarrow$ geodata
Registered address of a person in the civil register $\rightarrow$ personal data
$\rightarrow$ building related EPC data are open data
Non-personal data: Geodata, Open Government Data

Environmental Information Directive 2003/4/EG
INSPIRE Directive 2007/2/EG

Building related technical information is under open data legislation

Personal data: Lawfulness of processing applies

For example: GDPR Article 6 paragraph 1 letter e: processing is necessary in the public interest

Combination with civil register and income data for targeted policy development is under the GDPR
A balance is needed: which right needs to be protected?

Personal rights worth protecting are opposed to the protection of public information in a free society.

Protecting privacy in accordance with Article 7 of the Charter of Fundamental Rights of the European Union: Respect for private and family life: Everyone has the right to respect for his or her private and family life, home and communications.
Making use of EPCs in Vienna

- **Success of ENERFUND approach depends on three criteria:**
  - Quality of EPCs
  - Coverage of the building stock with EPCs
  - Type of accessible data (e.g. final energy alone is not useful, differentiation into space heating, domestic hot water, and electricity is required)

- **EPC issued for existing buildings in the course of selling or renting:**
  - Quality control? Coverage?

- **After 3 years of operation,** energy consumption data have to be added

- **EPC issued as part of the building permit procedure:**
  - quality control works well, coverage 100%

- **Public administration is allowed to use all data for evaluation, research, policy instruments**
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