



# Instrumentul ENERFUND

Arhitectură, structură, oportunități

Horia Petran

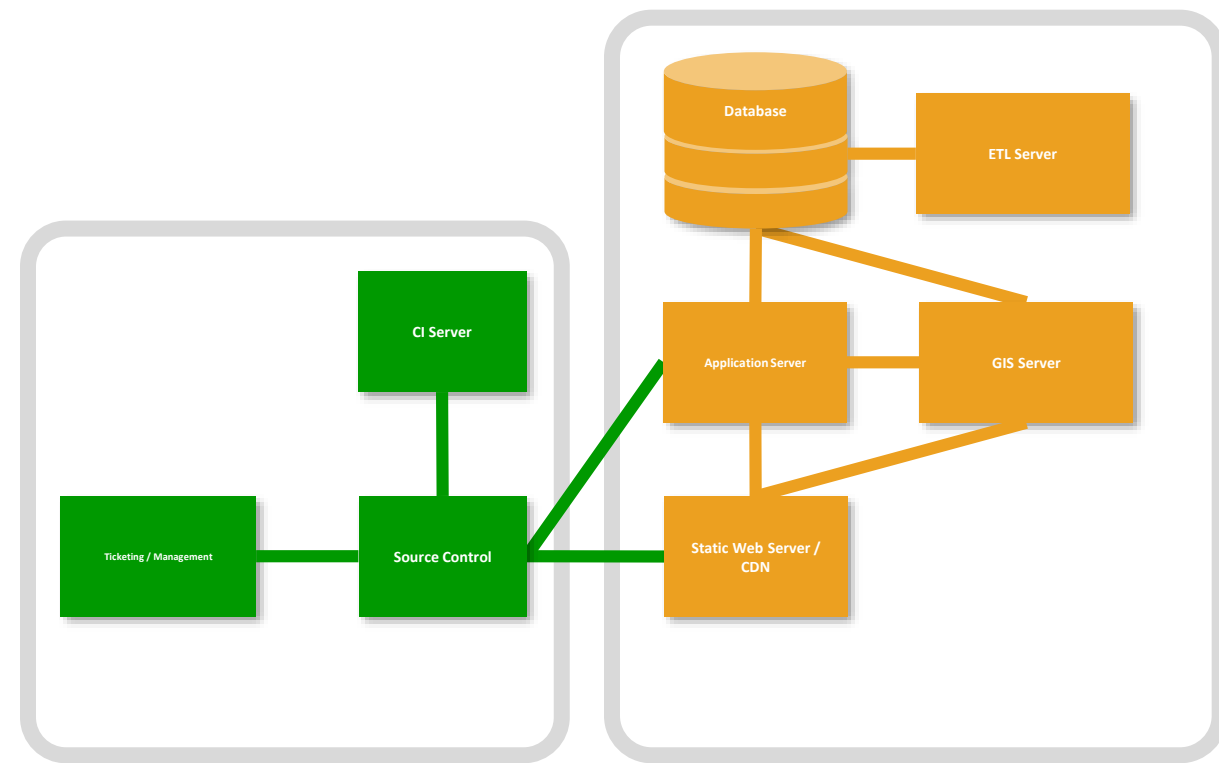
Training Workshop – Our Buildings  
2 iulie 2019, Braşov



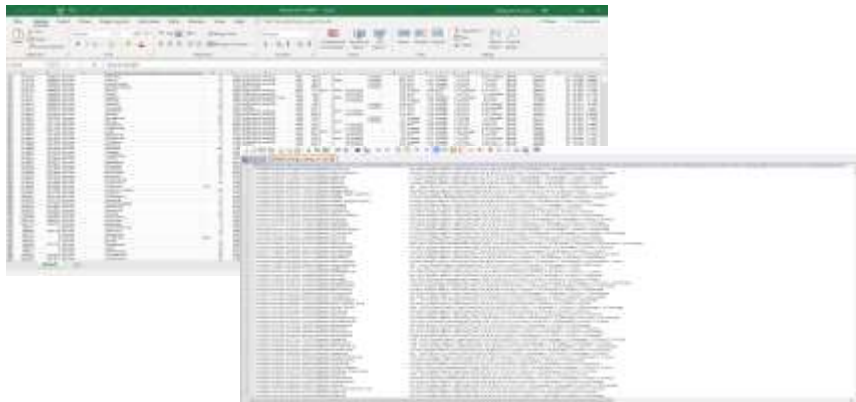
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Programme of the European Union under  
grant agreement no 695873

# Arhitectură

- Bazată pe capacități de cartografiere
- Totul trebuie geo-codat
- Surse de date deschise
- Adaptabilitate & flexibilitate pentru orice tip de date
- Ușor de utilizat



De la ...

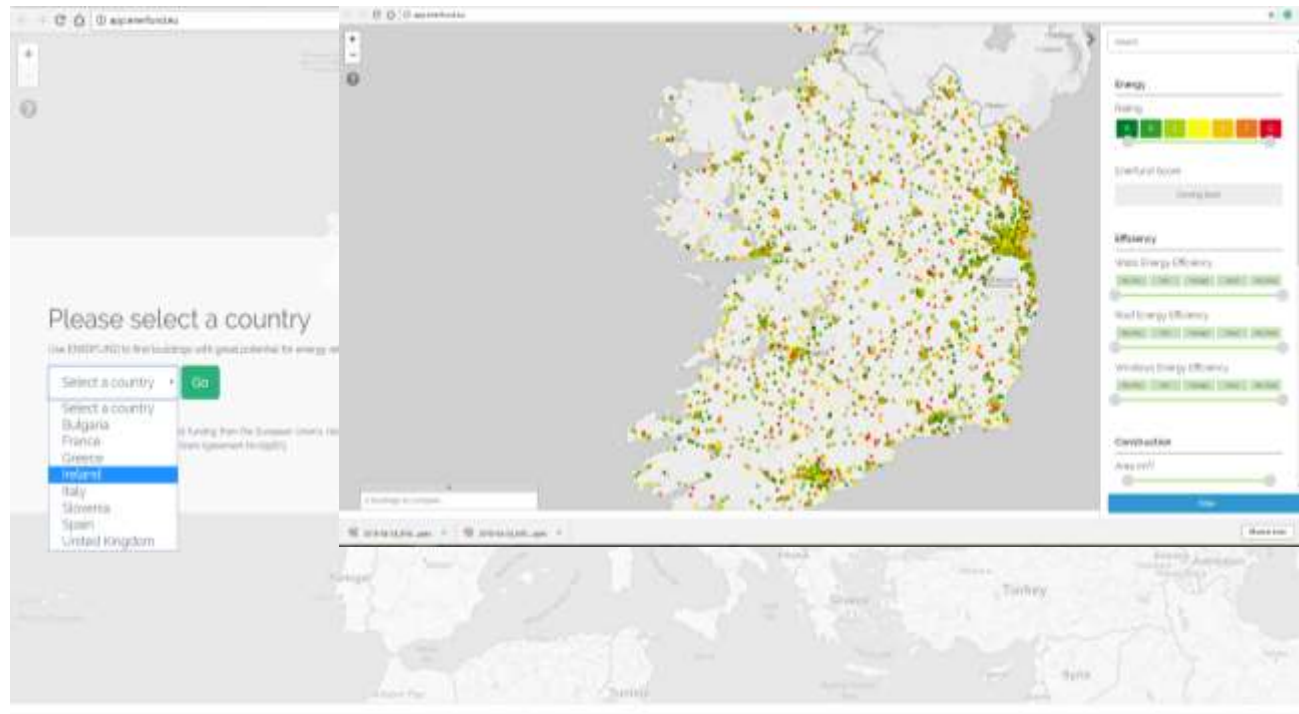


... până la



# Caracteristici

- Cu ajutorul ENERFUND puteți avea acces la o gamă largă de informații pentru o zonă predefinită



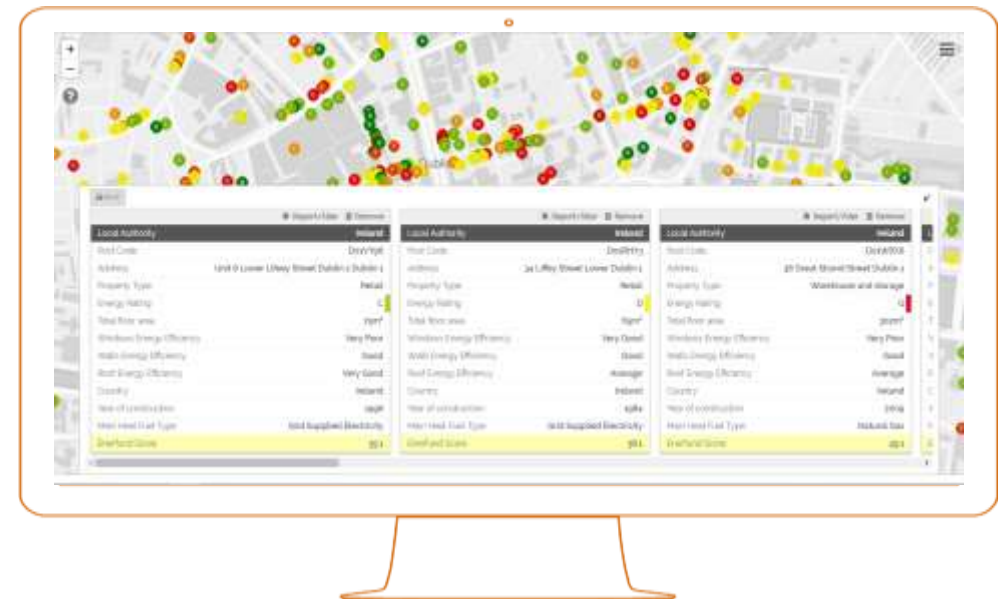
<http://app.enerfund.eu>

# Caracteristici

- Filtrare în funcție de:
  - Clasa energetică
  - Potențialul de renovare (clasă)
  - Tip de proprietate
  - Performanța termică a ferestrelor
  - Performanța termică a acoperișului
  - Performanța termică a pereților
  - Combustibil principal pentru încălzire
  - Categoria / destinația clădirii
  - Aria utilă a spațiului încălzit
  - Anul construirii
  - Nota ENERFUND
- Compararea și exportul/tipărirea rezultatelor



<http://app.enerfund.eu>



# Capabilități ENERFUND

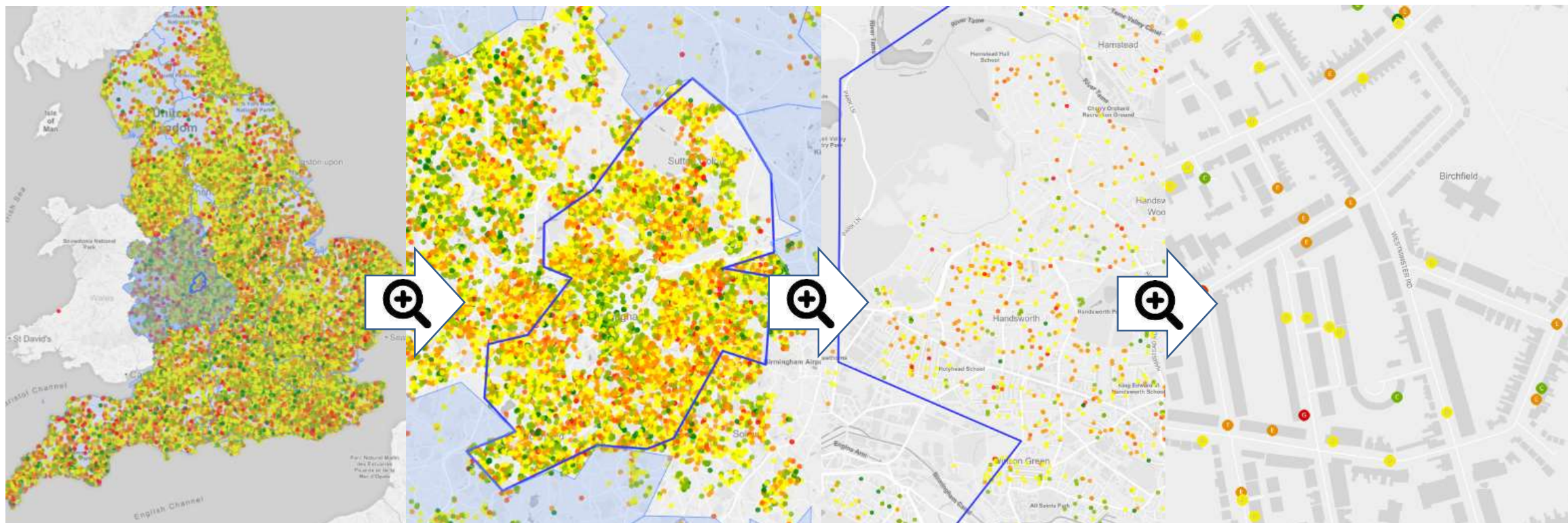
- Asistență complexă pentru activități legate de renovarea energetică a clădirilor
- Poate lucra cu o cantitate mare de informații referitoare la o clădire, un grup de clădiri, un oraș, o regiune
- Poate repera măsurile energetice cele mai eficiente economic
- Poate sprijini oportunități de finanțare la diverse scări
- Sprijină autoritățile locale în stabilirea obiectivelor de economisire a energiei
- Contribuie la stabilirea planurilor naționale de eficiență energetică și poate servi la evaluarea succesului acestora
- Sprijină programele de reducere a emisiilor de GES



# exemplu

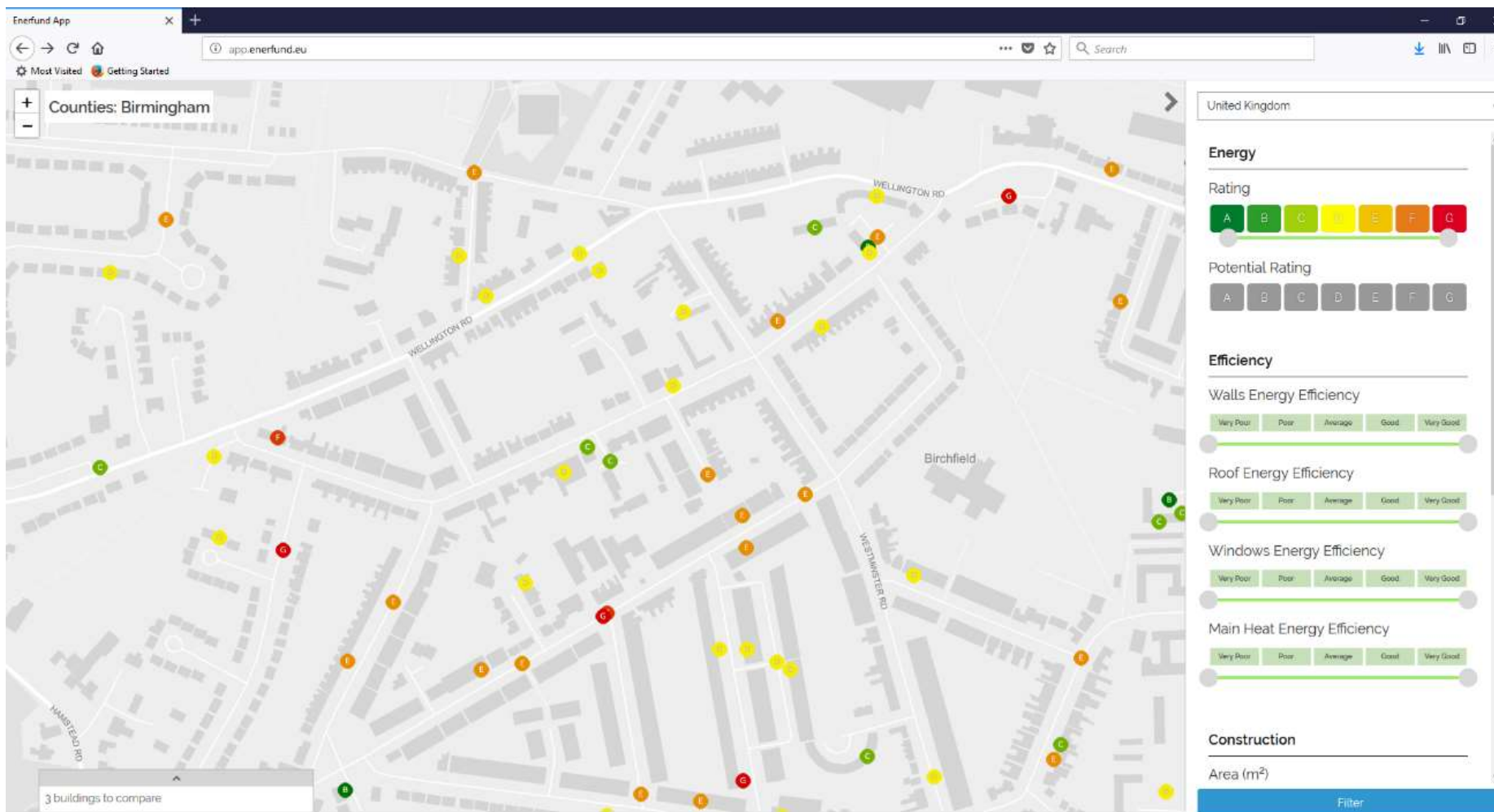
Localizare: Birmingham (UK)

<http://app.enerfund.eu/>



# exemplu

## Localizare: Birmingham (UK)



# exemplu

Localizare: Birmingham (UK)

The screenshot displays the Enerfund App interface. On the left, a map of Birmingham, UK, is shown with three buildings marked with red dots and labeled 'a', 'b', and 'c'. A blue arrow points from the text 'Alegerea criteriilor' (Selection of criteria) to the settings panel on the right. The settings panel includes a dropdown menu for 'United Kingdom' and several sliders for energy and efficiency criteria:

- Energy Rating:** A horizontal bar with seven colored segments (A, B, C, D, E, F, G). The slider is positioned at 'C'.
- Potential Rating:** A horizontal bar with seven colored segments (A, B, C, D, E, F, G). The slider is positioned at 'A'.
- Efficiency:** A section with four sliders, each with five segments (Very Poor, Poor, Average, Good, Very Good):
  - Walls Energy Efficiency: Slider at 'Average'.
  - Roof Energy Efficiency: Slider at 'Average'.
  - Windows Energy Efficiency: Slider at 'Average'.
  - Main Heat Energy Efficiency: Slider at 'Average'.
- Construction:** A section with a slider for 'Area (m<sup>2</sup>)'.

A 'Filter' button is located at the bottom of the settings panel. The browser address bar shows 'app.enerfund.eu'.

# exemplu

## Localizare: Birmingham (UK)

**Compararea clădirilor**

Local Authority	Birmingham	Local Authority	Birmingham	Local Authority	Birmingham
Post Code	B20 3RB	Post Code	B20 3PS	Post Code	B20 3RD
Address	6, Hutton Road, Handsworth	Address	127, Stamford Road	Address	96a Hutton Road, Handsworth
Property Type	House	Property Type	House	Property Type	Flat
Energy Rating	E	Energy Rating	D	Energy Rating	G
Potential Energy Rating	C	Potential Energy Rating	B	Potential Energy Rating	D
Total floor area	81m <sup>2</sup>	Total floor area	95m <sup>2</sup>	Total floor area	51m <sup>2</sup>
# for Rooms	5	# for Rooms	5	# for Rooms	2
Windows Energy Efficiency	3	Windows Energy Efficiency	3	Windows Energy Efficiency	3
Walls Energy Efficiency	1	Walls Energy Efficiency	4	Walls Energy Efficiency	1
Roof Energy Efficiency	1	Roof Energy Efficiency	5	Roof Energy Efficiency	3
Main Heat Energy Efficiency	4	Main Heat Energy Efficiency	4	Main Heat Energy Efficiency	1
Country	United Kingdom	Country	United Kingdom	Country	United Kingdom

United Kingdom

**Energy**

Rating: A B C D E F G

Potential Rating: A B C D E F G

**Efficiency**

Walls Energy Efficiency: Very Poor Poor Average Good Very Good

Roof Energy Efficiency: Very Poor Poor Average Good Very Good

Windows Energy Efficiency: Very Poor Poor Average Good Very Good

Main Heat Energy Efficiency: Very Poor Poor Average Good Very Good

**Construction**

Area (m<sup>2</sup>)

Filter

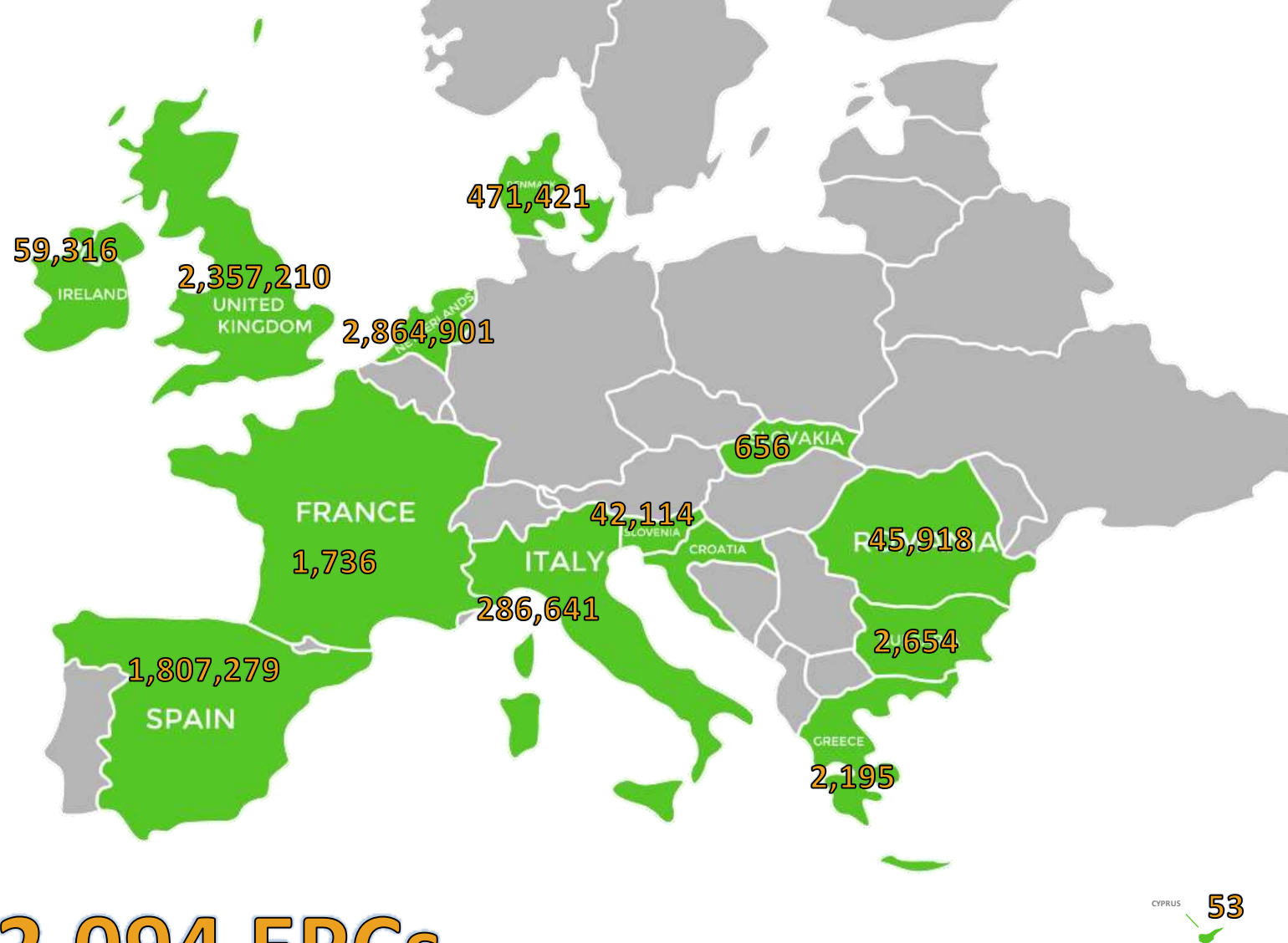
# Notarea ENERFUND

Formula de **notare ENERFUND** utilizează 8 criterii cu pondere predefinită și este prezentată în puncte procentuale (maximum 100):

- Aria utilă totală și potențialul de economisire: Max. 50 puncte
- Anul construirii: Max. 10 puncte
- Nivelul prețurilor: Max. 10 puncte
- Nivel de ocupare: Max. 10 puncte
- Contribuție proprie (la investiție): Max. 10 puncte
- Nivel de zgomot: Max. 5 puncte
- Proprietate: Max. 5 puncte

Formula de calcul a notei ENERFUND a fost dezvoltată ca o metodă comună și aplicabilă pentru toate țările:

$$\text{Nota ENERFUND} = 0,5 * N(\text{aria utilă}) * N(\text{economii energie}) + 0,1 * N(\text{anul construirii}) + 0,1 * N(\text{prețuri}) + 0,05 * N(\text{zgomot}) + 0,1 * N(\text{proprietate}) + 0,05 * N(\text{ocupare}) + 0,1 * N(\text{cofinanțare})$$



7,942,094 EPCs

73,441,166 unique building data

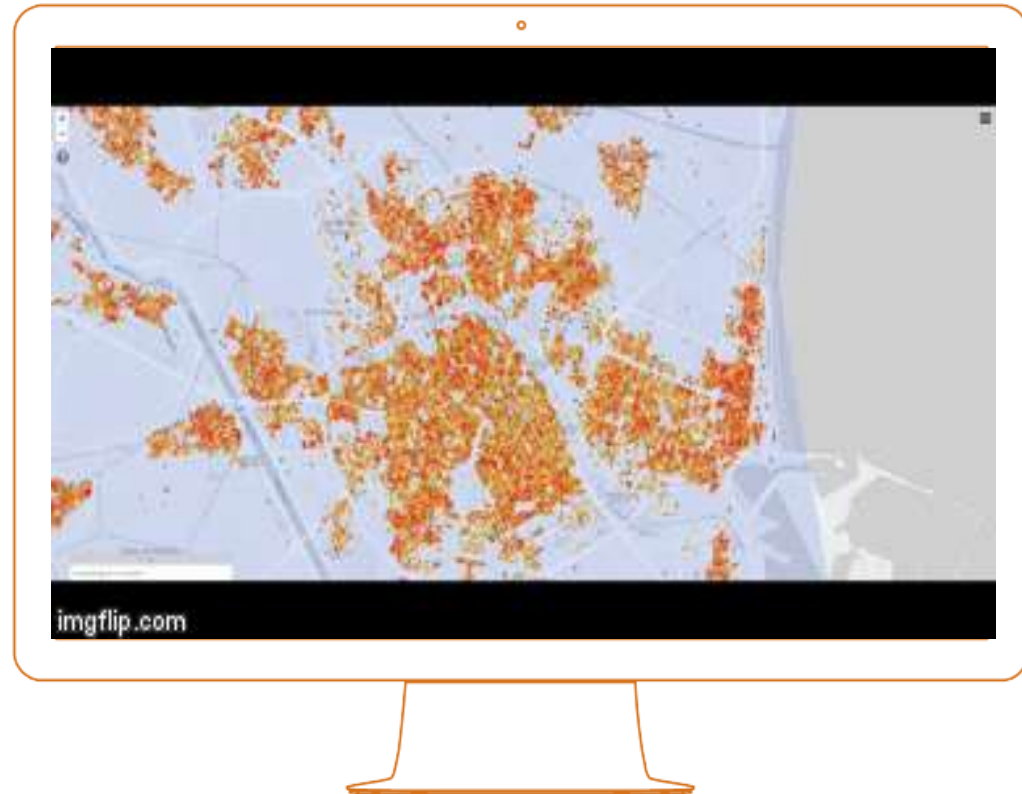
# Date

Country	Current rating	Potential rating	ENER-FUND score	Walls energy eff.	Windows energy eff.	Roof energy eff.	Main fuel type (heating)	Area (m <sup>2</sup> )	Building type	Cons. year	Agg. data
BG	✓	✓	✓	✗	✗	✗	✗	✓	✓	✗	✗
CY	✓	✗	✗	✗	✗	✗	✗	✓	✗	✓	✗
DK	✓	✓	✓	✓	✓	✓	✗	✓	✓	✓	✗
ES	✓	✗	✓	✗	✗	✗	✗	✓	✓	✗	✗
FR	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✓
GR	✓	✗	✓	✗	✗	✗	✗	✓	✓	✓	✗
IE	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗
IT	✓	✗	✗	✗	✗	✗	✗	✗	✗	✗	✗
NL	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗
RO	✓	✓	✗	✗	✗	✗	✗	✓	✓	✓	✓
SI	✓	✗	✓	✗	✗	✗	✓	✓	✓	✓	✗
SK	✓	✗	✗	✗	✗	✗	✗	✗	✓	✗	✗
UK	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✗

# An ENERFUND scenario – retrofitting schools in Valencia



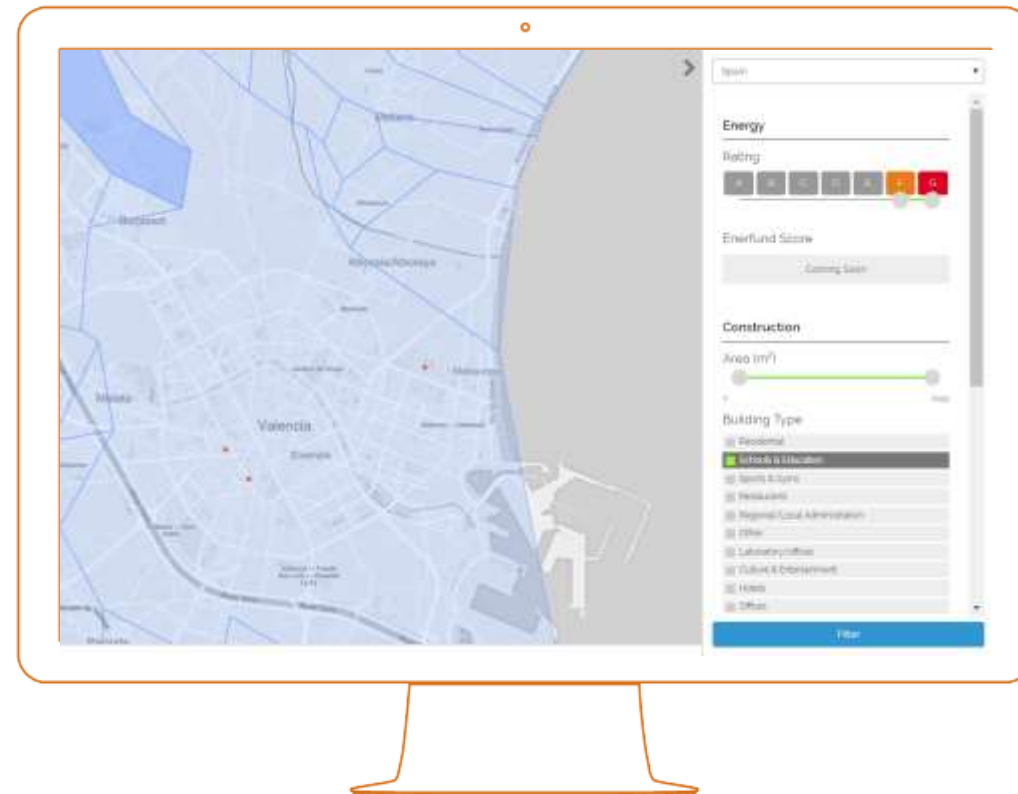
- Your department is interested in identifying deep renovation options for Schools in Valencia
- After selecting Spain from the country menu, filter by “type” and find all the schools in the city with a lower than F energy efficiency rating



# An ENERFUND scenario – retrofitting schools in Valencia



- There are three schools in Valencia with very poor energy efficiency rating ( $\leq F$ )!



# An ENERFUND scenario – retrofitting schools in Valencia



- As a final step, you can print or save the comparison report!
- **In this example, we have identified the needs for retrofitting in schools in Valencia in just 1 minute!**



mai multe informații

<http://app.enerfund.eu/>

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sau partenerii regionali:





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# Vă mulțumesc!

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Vă place?  
Aveți sugestii?



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