USER MANUAL – ONLINE PORTAL

CROSS-BORDER HOUSING MONITOR
Euregio Meuse-Rhine

december 2022

CROSS-BORDER
HOUSING MONITOR
EUREGIO MEUSE-RHINE

Table of contents

1. The Housing Monitor EMR

Up until now it proved difficult to gather and combine data about the housing market for the EMR, as different data sources, definitions and availability play a role. With the Housing Monitor EMR a geographical online portal is developed where relevant cross-border housing market information is available in one place, free of charge and up to date for municipalities in the EMR region. This portal focuses on indicators that describe the demand (population and households) and supply side (housing market), as well as including information about the surroundings of the living environment.

This user manual will address the content of the data in terms of included indicators and the main functionalities of the portal in a step-by-step guide. The portal is available via www.housing-emr.eu, where also a video tutorial can be viewed.
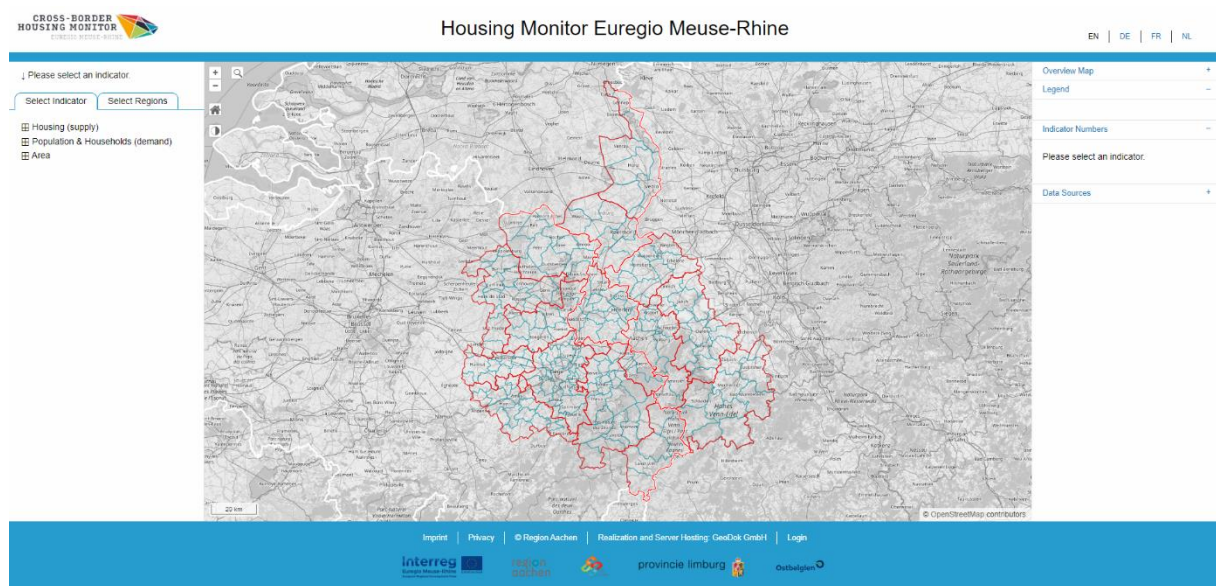
2. Data & data gaps

Indicators for multiple themes are included in the Housing Monitor EMR. In the table an overview of the indicators per theme is shown.

Theme	Indicator
Population	Total population
	Population by age
	Population by nationality
	Development
	Forecast
	Density
	Available income
Households	Total households
	Household size
	Forecast
	Household type
Migration	National emigration
	National immigration
	International emigration
	International immigration
	Forecast
Housing	Total housing stock
	Building age
	Housing type
	Housing ownership
	Plans
	Realization
	Demolition
	Density
	Residential area per habitant
Housing market	Rental prices
	Purchase prices
	Transactions
Labour market	Employment
	Unemployment
	Employment rate
	Unemployment rate
	Commuters
Area	Total size
	Residential area

For each indicator as many data as available is included in the portal. However, for many indicators not for every region, every scale level and every year data is available. The Housing Monitor gives insight in these existing data gaps. In other cases, data is available for all the regions, but the definitions differ. In those cases it is chosen to add separate maps per region or to exclude the indicator from the portal. Separate maps are included for the indicators: available income, building age, housing plans, purchase price and rental price.

CROSS-BORDER
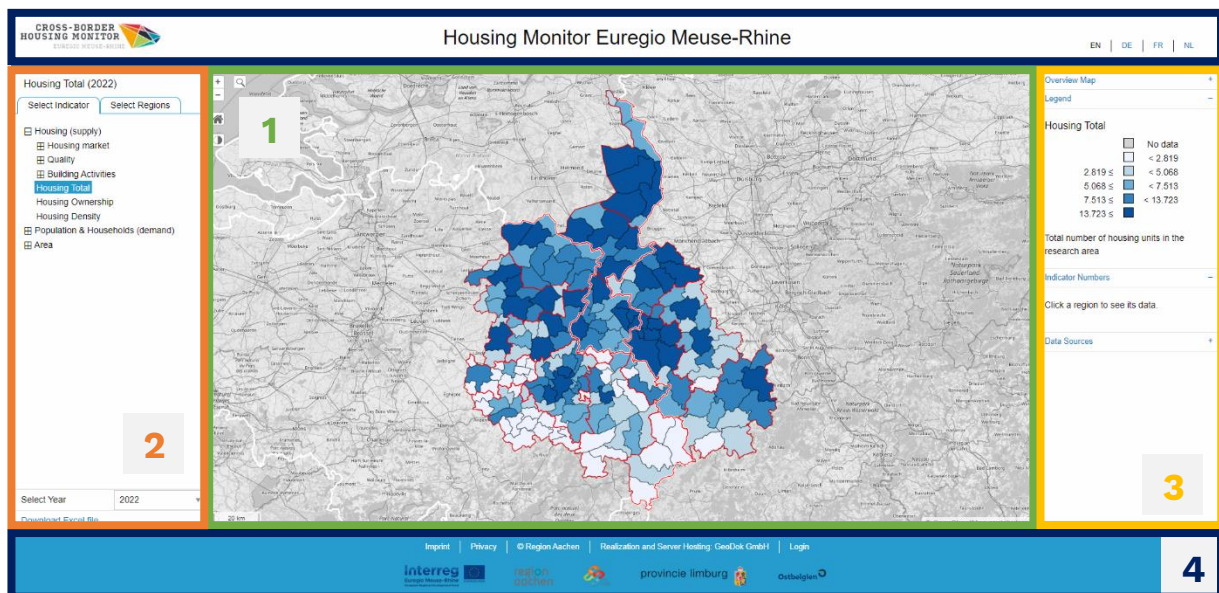HOUSING MONITOR
EUREGIO MEUSE-RHINE

3. Functionalities

In this chapter the main lay out and functionalities will be presented with screenshots of the portal and step-by-step explanations.

Main layout

The portal exists of four main elements, each with their own specifications and functionalities that will be discussed per element in this manual.

1. Central map
2. Selecting tool
3. Data visualization
4. Header & footer

The portal automatically starts with an empty map, as no indicator is selected. For the examples in this manual, the indicator Housing Total is selected, so output can be seen on the map.

1. Central map

The central map is the most important element of the EMR Housing Monitor. In the map, data is visualized per selected scale level. As mentioned, for these examples the indicator Housing Total is selected to show output on the map. A topographical layer based on OpenStreetMap is used as a base layer for the portal. Data is shown in colored planes per municipality, district or EMR region, depending on the selected scale level.
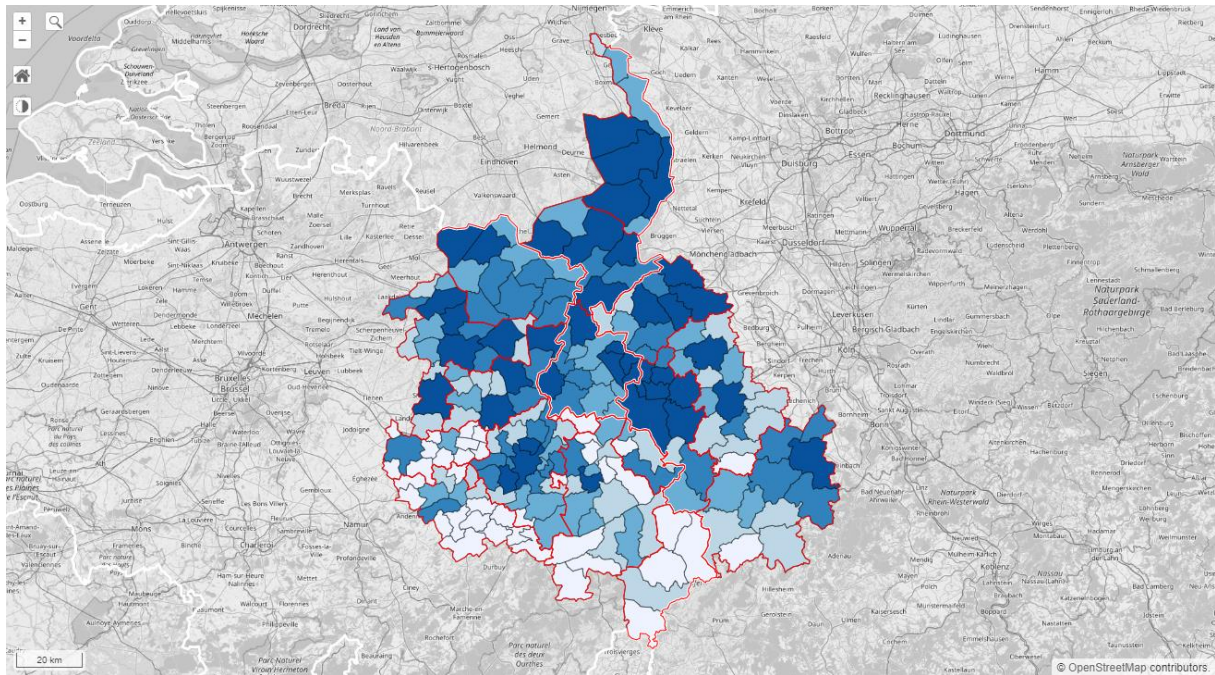

In the map four extra functionalities exist:

Zoom function: Zooming in or out on the map can be either done with the + and – symbols in the left upper corner of the map or by using the mouse wheel.

Search function: An area of interest can be searched with the search function right next to the zoom function in the map. Clicking the search function opens a search window, where an address, municipality or area can be entered. A list of options is returned. The map zooms to the selected region of interest.
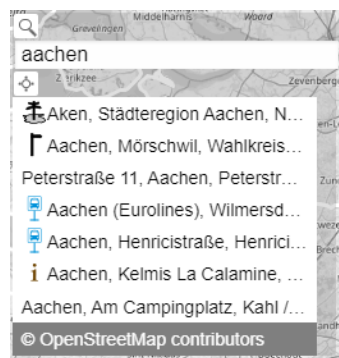
Standard view: With the standard view function the map returns to the standard view. This is the view the portal starts with, that shows the entire EMR region.

Transparency: With this function the transparency of the data layer can be adjusted by using a slider. The slider opens when the transparency symbol is selected.

CROSS-BORDER
HOUSING MONITOR
EUREGIO MEUSE-RHINE

2. Selecting tool

Data can be selected with the selection tabs on the left hand side of the portal. The selection exists of three main elements, which are explained in more detail below:

1. Indicator selection
2. Region selection
3. Reference year selection

1. Indicator selection

Selecting indicators can be done on the first tab. Indicators are divided into three main themes: Housing (supply), Population & Households (demand) and Area. The themes can be unfolded to show the indicators within that theme. In the figure this is done for theme Housing (supply), where the indicator Housing Total is selected.
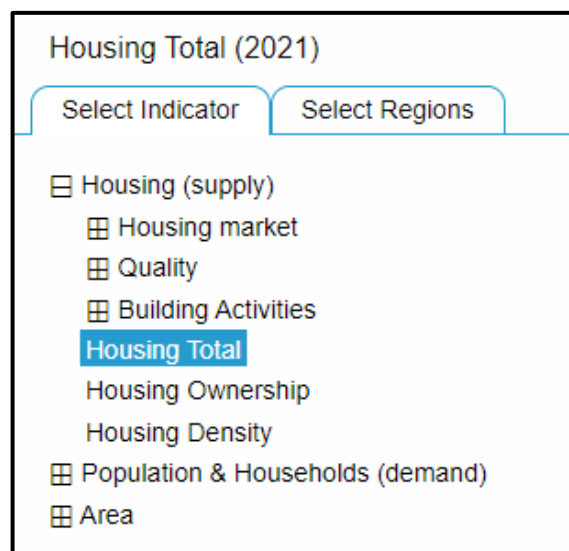

2. Region selection

Withing the selection of the area of interest, two selecting options exist.

- Select scale level
  In the drop down list at the top of the tab the scale level of the visualized data can be chosen. The available scale levels are: municipality, arrondissement or region.
- Select shown regions
  Per scale level (region, arrondisse-ment, municipality) it can be selected if the data has to be visualized on the map.
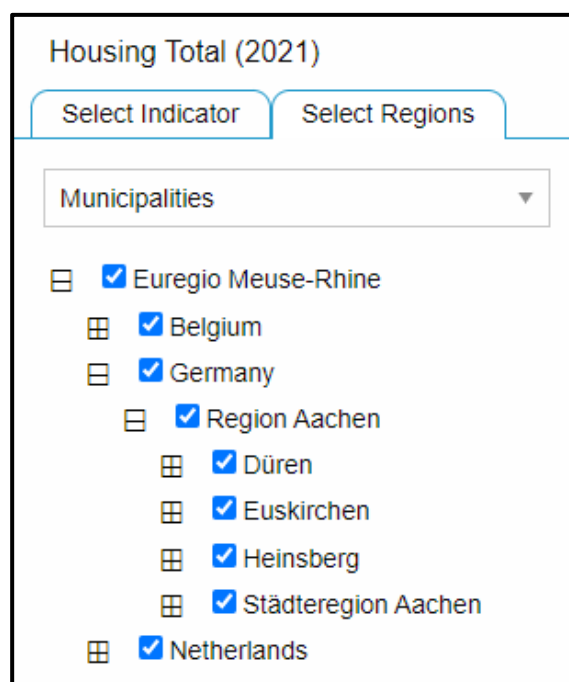
Note: data is not available for all scale levels for different reasons. Due to municipal restructuring in the past, data cannot always be summed to a district level. For other indicators, data is only available on a district level. If you cannot see data for the selected indicator and scale level, it is useful to switch to another scale level to help showing the right data for a region.

For example, in the figure below, scale level: arrondissements is selected, showing data for the Belgian and Dutch regions on the map.
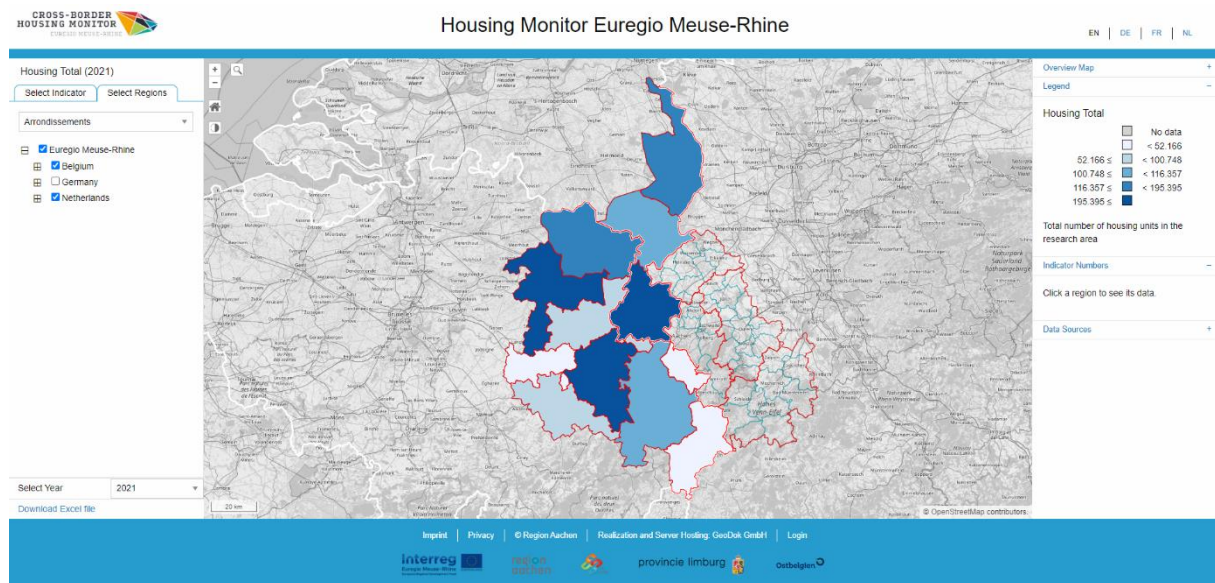
3. Reference year selection

To select a specific reference year a drop down list at the bottom of the selection panel is available. The available years in this list are dependent on the selected indicator. Normally, the portal starts with the latest year where data for all regions is available.


Note: data is not available for all years for all indicators and regions. Often data is available for different years between the regions. Selecting another reference year is helpful in showing data for a region.

3. Data

To discuss the available data in the portal in more detail, first a specific municipality is selected. For this example, the municipality of Aachen is selected, indicated by the yellow line that now encircles the area in the map. In this overview figure different elements are indicated with colored outlines.
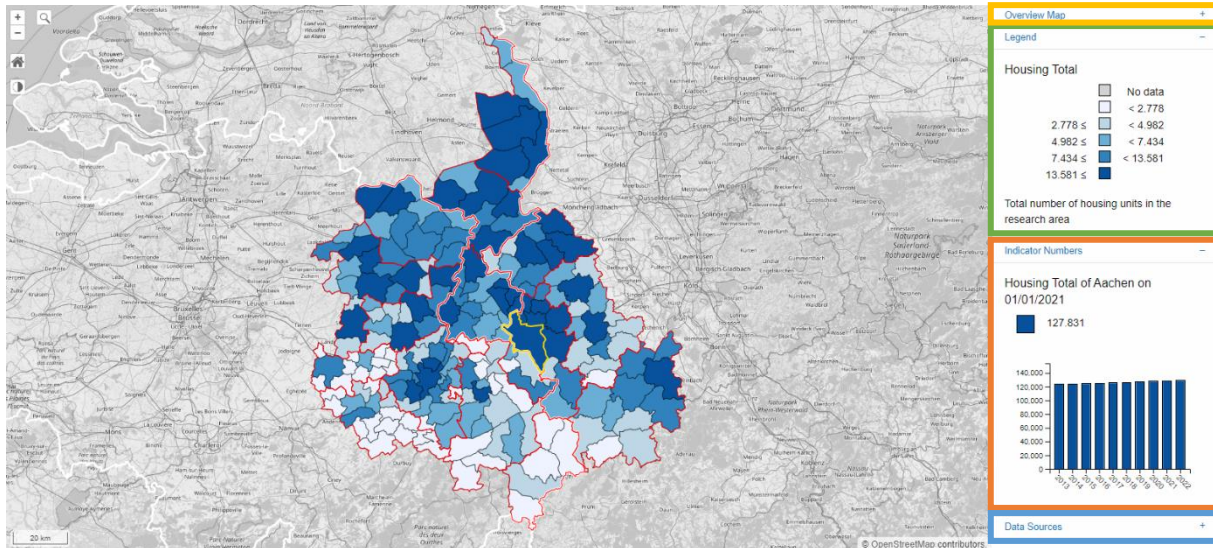

Data in the portal is available in multiple ways, which are explained in more detail below:

1. Data visualization (right hand side of the portal existing of four elements)
2. Data export
3. Data import

1. Data visualization

As already discussed data is visualized on the map in shades of blue. The ranges corresponding to these colors can be found in the legend on the right side of the portal (indicated by the green layout in the overview figure and the figure next to this text). These ranges are automatically generated for each selection, based on the quantiles of the data.
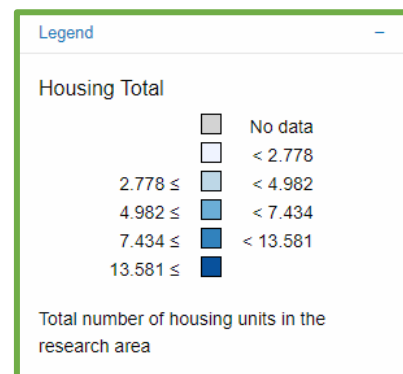
The specific data for a selected area is shown on the right side beneath the tab 'Indicator numbers' (indicated by the orange layout in the overview figure and the figure besides this text). In this case for the indicator Housing Total and municipality Aachen on 01/01/2021 it can be seen that a total of 127.831 houses exist. Also, a time series of data for the last ten years (or the last available years) is shown in this part of the portal.

9

CROSS-BORDER
HOUSING MONITOR
EUREGIO MEUSE-RHINE
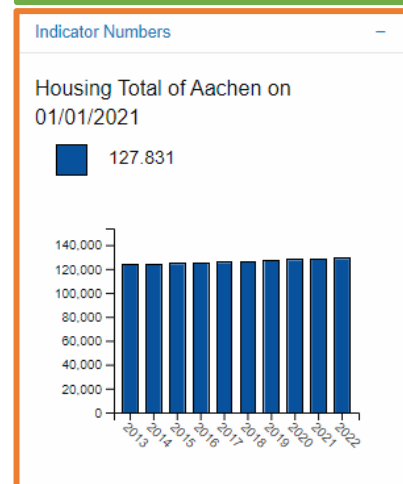
Extra functionalities with the data visualization part of the portal include the overview of the map and the reference to the data sources.

The overview of the map is visible after unfolding this functionality in the right upper corner of the portal (see also the yellow layout in the overview figure). The overview of the map shows on a higher scale where the central map is located. This is particularly of use when you are zoomed in quite extensively.

Information about the original data sources can be found when unfolding the tab 'Data Sources' in the right bottom corner of the portal (see also the blue layout in the overview figure). Per region it is registered where data is found and how this data is licensed. The information is directly linked to online database where information for the EMR Housing Monitor is extracted.

2. Data export

    Data for the selected indicator, for the selected regions, for the selected reference year can be exported through the 'Download Excel file' button in the left down side of the portal (see the red arrow in the figure). The data is exported as an Excel file named after the indicator and the reference year. The file consists of three columns: NUTS Code, Location and Value.

3. Data import

    Data import and updating for existing indicators is only available through a login for specific users. More information about the login and how to use this function is only available for those specific users.
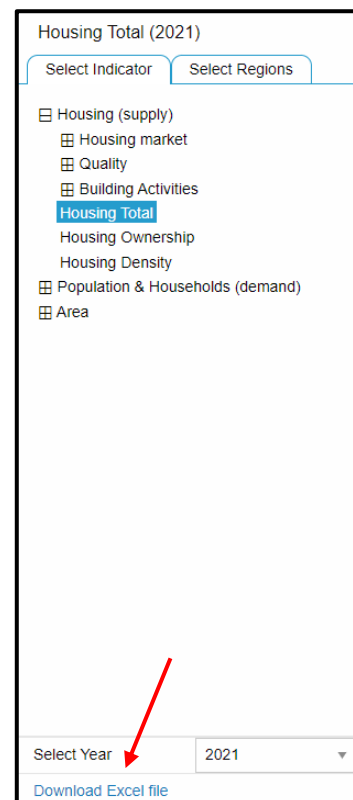
4. Header & footer

In the header and footer different functionalities can be found. On the right hand side of the header the language of interest can be chosen. The portal always starts in English, but a user can switch to either German, French or Dutch.

The footer gives access to different documents, including the imprint and privacy policy. Also, for certified users it is possible to use the log in in the footer and get access to an extra import functionality. With this functionality users can update data for the different indicators in the portal.

5. Video tutorial

A short video tutorial is available where a live demonstration of the portal is shown in a step-by-step manner. With this video the interactive abilities of the map are visualized more clearly than could be done in this user manual.

CROSS-BORDER
HOUSING MONITOR
EUREGIO MEUSE-RHINE