

# GRANULAR Digital Platform User manual



UK Research and Innovation



## 1. GRANULAR Digital Platform – User Manual

This user manual is designed to explain in detail how to navigate and use the GRANULAR Digital Platform's features, including the <u>Dataset Repository</u> an <u>Visualisation Toolkit</u>. The GRANULAR Digital Platform delivers a repository of rural datasets generated both within and outside the GRANULAR project, as well as visualisation capabilities towards facilitating an in-depth exploration of rural data and indicators.

The term 'user' refers to any individual, whether a member of a project consortium partner or not, interested in searching for and retrieving information about the rural topics addressed in GRANULAR Digital Platform and associated with European research projects.

This user manual consists of the following sections:

- 'Structure of the GRANULAR Digital Platform' (Section 1.1): provides an overview of the system's structure to facilitate navigation from user's point of view.
- 'Interacting with the 'GRANULAR Digital Platform' (Section 1.2): focuses on each individual page of the digital repository. It provides insights into the platform's user interface and user experience.

The first version of the GRANULAR Digital Platform can be accessed directly via the following URL: <u>https://platform.ruralgranular.eu/home</u>. It can also be accessed from the main menu of the GRANULAR project's website ("DIGITAL PLATFORM" tab), as shown in Figure 1.



Figure 1: Access to the 'GRANULAR Digital Platform' from the GRANULAR project's website menu.





## 1.1. Structure of GRANULAR Digital Platform

The GRANULAR Digital Platform is an online and open-access repository for exploring existing and newly sourced novel data and indicators on rural areas. The GRANULAR <u>repository</u> of rural datasets and the <u>visualisation toolkit</u> are the two modules of the Digital Platform.

## 1.2. Interacting with the GRANULAR Digital Platform

An overview of each page of the platform is presented, focusing on: (i) the information and content made available to the user; (ii) the actions that can be executed; and (iii) the elements used for facilitating the navigation from one repository page to another.

#### 1.2.1. 1.2.1 The GRANULAR Digital Platform homepage

The homepage of GRANULAR Digital Platform is at the top of the repository's structure hierarchy (Figure 2).



Figure 2: Digital Platform's homepage structure

The Digital Platform's primary navigation menu is located at the center of the page, allowing users to navigate the repository pages (Figure3). The design of the GRANULAR Digital Platform is consistent with the project's visual identity.

GRANULAR Home	Repository Visualization toolkit	User Manual	Contact us	Q Search Here Search Bar for	GRANULAR's conten
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Figure 3: Logo and main menu of GRANULAR Digital Platform.





The GRANULAR Digital Platform's homepage provides access to background information about the GRANULAR project. It also provides an overview of the topics addressed by the project (Figure 4) and the datasets that are accessible to the users (Figure 5), including topics such as Demography and Migration, Environment and Energy, Infrastructure and Accessibility, Health, Economic Development, Labor Market, Living Conditions and Social Inclusion, Rural Typologies, Administration and Governance, Agriculture and Food, Recreation.



Figure 4: Short description of the GRANULAR Digital Platform (homepage)









In the coming years, additional datasets will be added to the repository's inventory and they will be displayed to the user in various categories (Figure 6).

Available d	atase	ets		BY	CATEGORY	LATEST	MOST POPULAR
	Recreation	Agriculture and food	Infrastructure and accessibility	Economic Development	Environment and energy		
	a//b Administration and governance	Living conditions and social inclusion	Rural typologies	Health	Demography and migration		

Figure 6: Datasets categories and filtering option on homepage

Additionally, the homepage contains a list of frequently asked questions and their answers (Figure7).

Question &	How can you help rural actors?
Answers.	Can I contribute with my own dataset? +
	Where can I address any questions about the platform itself?+
	What kind of data and indicators are available on the GRANULAR platform?
	Are the datasets on the platform updated regularly?

Figure 7: Q&A section

By clicking the 'Contact us' button from the menu bar, it is possible to contact representatives of the GRANULAR project (coordinators, development team, CODE representative) regarding any general- or platform-related issues. When the user clicks on this link, a contact form appears for them to complete. The user can send an email to the administrator of the platform by providing information about the topic they wish to discuss, along with their name and email address (Figure 8).





							Granular Website	Rural observat
		Home	Repository	Visualization toolkit	User Manual	Contact us	Q Search Here	
				Conta	ct us			
	You ca	in message	about question	ns for the platform , ger	neral questions or	even dataset re	ecomendations.	
	A. S.	- Andrews	Ask a					
	and the second	and the second	ALL COLOR					
Topic*								
Gen	eral							
Name								
You	ur name (not r	equired)						
Email*								
exa	mple@mail.co	om						
Comme	ent*							
Pro	ivide an explai	nation about	your request.					
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Figure 8: Contact Form

A mechanism is also available on the "For further info & support" banner (Figure 9), to contact representatives of the GRANULAR project, for any project- or repository-related issue, by clicking on the 'Contact us' link. When clicking on this link the email application, used by default by the user's computer, opens to enable the user to send an email to the project development team's email address (platform@ruralgranular.eu).



Figure 9: Contact us' section





The footer section (Figure 10) provides an array of practical links facilitating seamless navigation to all sections of the GRANULAR Digital Platform. Furthermore, the footer houses essential contact details of project members, including their full names and email addresses. Additionally, it prominently features icons that grant access to the official social media channels associated with the GRANULAR project.

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Figure 10: Footer section of the Digital Platform.

#### 1.2.2. The Repository page

The 'Repository page' of the GRANULAR Digital Platform is accessible through the header menu. This page serves as a comprehensive repository of all accessible datasets, systematically categorised for user convenience (Demography and migration; Environment and energy; Health; Infrastructure and accessibility; Economic development; Labor market; Living conditions and social inclusion) (Figure 11) . A free-text search bar is also accessible on all pages, allowing for custom queries (Figure 11).

23						Granular Website Rura	il observatory
🍜 GRANULAR	Home	Repository	Visualization toolkit	User Manual	Contact us	Q Search Here	
Repository							
Availah		lata	ote				
Availab		Jata	SELS				
🛞 Agriculture	and food	Infrastruct	ture and accessiblity	💱 Economic Develo	oment	Environment and energy	
	and food	overnance	ture and accessiblity	🐕 Economic Develo	oment	Environment and energy	
🛞 Agriculture	and food	overnance	ture and accessibility	Economic Develop	oment kypologie	Environment and energy	
Agriculture	and food	infrastruct	ture and accessibility	Economic Develop	oment	Environment and energy	
Agriculture	and food istration and g	infrastruct	ture and accessibility	Economic Develop clatinclusion	oment	Environment and energy	٩







In addition, users may initiate the dataset suggestion process by selecting the "dataset suggestions" option on the same page (Figure12). This action directs them to a submission form where they are prompted to provide basic information, including their name, email address, the URL of the suggested dataset, and brief descriptions or comments (Figure13). Subsequently, the suggested dataset undergoes a review process for potential inclusion in the platform's repository.

extensive walks without crossing noisy areas. European countries 2021 For dataset suggestions Recreation	
Recreation     Recreation	
	HERE
Filters	

Figure 12: Dataset suggestion

GRANULAR Home Re	pository Visualization toolkit U	ser Manual Contact us	Q Search Here	×
				~
Dataset	suggestic	'n		
ναιασει	JUZZCJUU			
Name Your name (not required)	Suggestic	····		
Name Your name (not required) Email*	Suggestic	/11		
Name Vour name (not required) Email* example@mail.com	suggestic			
Name Vour name (not required) Email* Example@mail.com COTCETTERETORS Predicted annual average NO2 concentration		- N0151 - NUT52		



At the lower right-hand corner of the page, a list of the platform's most popular datasets are presented (Figure 14).









Each dataset is accompanied by a concise summary of its content. Filtering options are also provided, allowing users to customise the results returned. Multiple filters may be selected. After opting for the desired filters, the user may click on the "Apply Filters" button to execute the filtering operation. By clicking on the "Remove Filters", the filters previously selected are cleared (Figure 15).

Potential quiet rural areas These spacious areas allow for example extensive walks without crossing noisy areas.	Share of rural household with internet access in the selected European countries 2021	Search Q.
Recreation	infrastructure and accessibility	For dataset suggestions click
EU-wide maps of NO2 concentrations Predicted annual average NO2 concentration (ugm3)	potential risk of agricultural land abandonment total amount of agricultural land (Millon hectares) corresponding to save aggregated risk class	Filters spatial Extent Gebal VUTS 1 VUTS 2 LAU VUTS 2 LAU VUTS 2 All Granular
Suitability map for the solar energy (PV) s suitability for the installation of large-scale PV systems in Europe	Tourism Tourism capacity and density based on booking.com, TripAdvisor and Eurostat data	Updates Annual Freiject-Based Data Type Satistics Veloscanjng Kelos
Crivironment and energy	infrastructure and accessibility	Raster     Aerial Photos     Satellite
Irrigation map Irrigation intensity	European land systems map There are four main land systems that are dominated by one land cover : settlement systems, forest systems, cropland systems, and grassland systems. Under each of these systems, there are live, medium	Vector Tabular Points Matrixes Licence Full Open Access
- Agriculture and food	Agriculture and food	Data Commons Open Database Licence

Figure 15: Datasets preview & filtering options

Upon selecting a specific dataset, users are directed to its dedicated webpage. This page provides details such as the dataset's type, authorship, upload date, title, a succinct description of its content, and relevant tags (Figure16). On the right-hand side of the page, users can access the "Dataset Suggestion" feature, which provides a list of suggested datasets with similar content (Figure 16).

🍯 GRANULAR	Home Repository Visualization toolkit User Manual	Contact us	Granular Website Rural observatory           Q         Seorch Fore
	← Go back to results  iii infrastructure and accessibility		
	EUBUCCO	search	
	European holding stock characteristics in a common and open database for 200+ million individual buildings Tage infrastructure and accessibility. Milojavic Dagont et al.	For dataset suggestions click	
		Similar datasets WorldPop Global Holiday Data Datasets of public and school holidays in 2010-2019 By UDS	
		Trainline-EU/stations Public transport dations III) Verson contributors	

Figure 16: Dedicated dataset's webpage





Moreover, a table featuring the dataset's available metadata is provided. Within the "Available Metadata" section of the webpage, a hyperlink for downloading the dataset is available, designated by the "URL" title, for datasets with open access (Figure 17). Furthermore, a link to the research paper associated with the dataset can be found under the "DOI API" title. Users have the option to download the dataset's metadata by clicking on the "Download CSV" button, located beneath the "Available Metadata" section (Figure 17).

Available metadata Author producer: Milojevic-Dupont et al.	Data class: Government dataset + OSM	EUBUCCO European building stock common and open datal individual bu	characteristics in a aave for 200+ million
Data type:   Vector	Rural compass: Residential	By Milojevic-Dupont et al.	The industrial and an enabled by COD
Temporal extent: 0 2023	Uploaded date:   Description  D		
Category:  Category:	<b>001 spi:</b> https://doi.org/10.1038/s41597-025-02040-2		
Download da	taset's metadata nikud csv		

Figure 17: Available metadata

#### 1.2.3. The Visualisation Toolkit

Upon visiting the visualisation toolkit (Figure 18), the user can select from a list of predefined indicator categories, analogous to the filters used in the repository section of the Digital Platform, and automatically, a graph will be generated and displayed on the user's screen, as explained in the paragraph below.

🅳 GRANULAR	Home	Repository	Visualization toolkit	User Manual	Contact us	Granular Website Q Search Here	Rural observatory
Indicator category			Please select one or	more indicators to star	t the visualization		
Geographic coverage of datasets							
Dataset update frequency							
Datasets per data class							
Datasets per data type							
Datasets data access							



The Visualisation Toolkit allows to display the data using three types of graphs to choose from: Nightingale, Basic, and Doughnut (Figure 19).









Users have the ability to selectively include or exclude dataset types from the generated graph by interacting with specific elements located at the bottom of the graph. It is important to note that this functionality is exclusively accessible within the Nightingale and Doughnut graph options and are intentionally designed to enhance the customisation of the graph, aligning it more precisely with the user requirements. Grayed-out elements indicate options that are currently disabled (Figure 20).







#### Figure 20: Graph's grayed-out elements

Below the graph title, a toolbar illustrates a few options for the created graph (Figure 21), explained in detail below:

🍯 GRANULAR	Granular Website Rural observatory Home Repository Visualization toolkit User Manual Contact us <u>Q Search Here</u>
Indicator category Geographic coverage Dataset update frequency Datasets per data class Datasets per data type Datasets data access	NIGHTINGALE BASIC DOUGHNUT Geographic coverage of datasets B C & @ & - LAU - LAU - Dort know - Dort know
	2 - NUTS2 1 - National 5 - Gridded 0 - Dorrt know 3 - NUTS3 4 - LAU
	Figure 21: Toolbar with options

**Data View**: This option allows the user to access a comprehensive list of datasets featured in the graph, complete with their respective quantities (Figure 22).

Indicator	
category	
Geographic	Data View
datasets       Dataset update frequency       Datasets per data class       Datasets per data type       Datasets data access	Access From 2 - NUTS2 4 1 - National 8 5 - Gridded 45 0 - Don't know 18 3 - NUTS3 2 4 - LAU 7
	Close Refresh
	Figure 22: Data View option





**Restore**: The "Restore" option serves the purpose of reactivating any previously deactivated graph elements, effectively eliminating applied filters.

Save as Image: Users can download the graph in .png format on their personal device.

Show Metadata: Upon selection of "Show metadata," a table containing the graph's metadata is dynamically generated (Figure 23).

ndicator categor	W		-
Geographic cover		×	
Dataset update frequency	"Geographic	coverage of datasets" metadata	
Datasets per data	Title	Geographic coverage of datasets	
	Graph type	Doughnut chart	
] Datasets per data	Indicator category	Geographic coverage of datasets	
Datasets data acc	Number of visualized indicators	6	
	Visualized_indicators	2 - NUTS2 , 1 - National , 5 - Gridded , 0 - Don't know , 3 - NUTS3 , 4 - LAU	
	Created at	Tue Sep 12 2023 15:10:15 GMT+0300 (Θερινή ώρα Ανατολικής Ευρώπης)	

#### Figure 23: Metadata table

**Download CSV**: Opting for "Download CSV" results in the acquisition of a .csv file, downloadable to the user's computer. This file contains detailed information regarding the types and quantities of datasets featured within the graph, as presented in the "Data View" option.

#### 1.2.4. Link to GRANULAR project's official website

The homepage of the GRANULAR Digital Platform enables the user to obtain a rapid overview of the scope and objectives of the GRANULAR project (Figure4). However, if the user requires access to further information about the project, they can be redirected to its official website by selecting the 'GRANULAR website' option available in the Digital Platform's main menu (Figure 3).





# 2. Useful Contact Information

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