Interreg CENTRAL EUROPE

Co-funded by the European Union

Rail4Regions

D 2.4.3
Railhub Finder

Version 2

07 2025

A. Introduction

Background

THE "RAIL4REGIONS" PROJECT IS A PROJECT WITHIN THE FRAMEWORK OF EUROPEAN TERRITORIAL COOPERATION PROGRAM (INTERREG CENTRAL EUROPE).

"Rail4Regions" addresses the need to improve regional access to the rail freight network. The aim of the project partners is to jointly develop highly scalable solutions that improve regional connections to European transport corridors, promote regional development and enable environmentally friendly transport for rural and peripheral areas. As a result, transport and spatial planning stakeholders will receive comprehensive planning tools to develop rail freight transport through sidings, reused branch and feeder lines, improved loading infrastructure and the promotion of single wagonload transport.

Twelve project partners are developing solutions to optimize regional rail networks and improve access to rail freight infrastructure. The elaborated results are intended to support local stakeholders in realizing a better integration of solutions into regional development plans. The implementation of the Railhub Finder is part of one of the four transnational pilot groups of the project.

As a result of a stakeholder survey, a toolbox was developed to identify regional loading points with potential for reactivation or expansion as transhipment points for rail freight transport.

B. Raihub Finder

Brief description RailhubFinder

The Railhub Finder is a bilingual website (German/English) with an interactive map and editorial system as well as general information on rail freight transport in Europe. The main component of the website is an interactive map of the member states of the Interreg B Program Area Central Europe (Germany, Poland, Czech Republic, Slovakia, Hungary, Slovenia, Croatia, Italy and Austria), on which various points of interest (loading points) are marked with different pins. During the pilot phase, the map will be limited to the

Thuringia region and will then be rolled out across Europe. By zooming in or clicking on these pins, further information will open (either on a new page or as a pop-up window) with images and text modules.

The individual POIs are classified into different categories and subcategories. POIs that cannot be displayed as GPS points (pins) because they are entire areas (e.g. industrial estates) are displayed on the map as areas or lines (with the same function as pins). Using a filter function, the user can hide or show certain POIs on the map interface, sort the search results and visually change the display of the results (list form, table form, text only, with images, etc.). Various thematic layers will also be available for selection on the map. In addition, links that refer to thematically similar pages will be incorporated.

After registration, the metadata available for the loading points or companies can either be entered by the operator or company themselves via the editor or sent to the responsible editor at the Thuringian Ministry of the Interior, Municipal Affairs and Regional Development, who will then incorporate it.

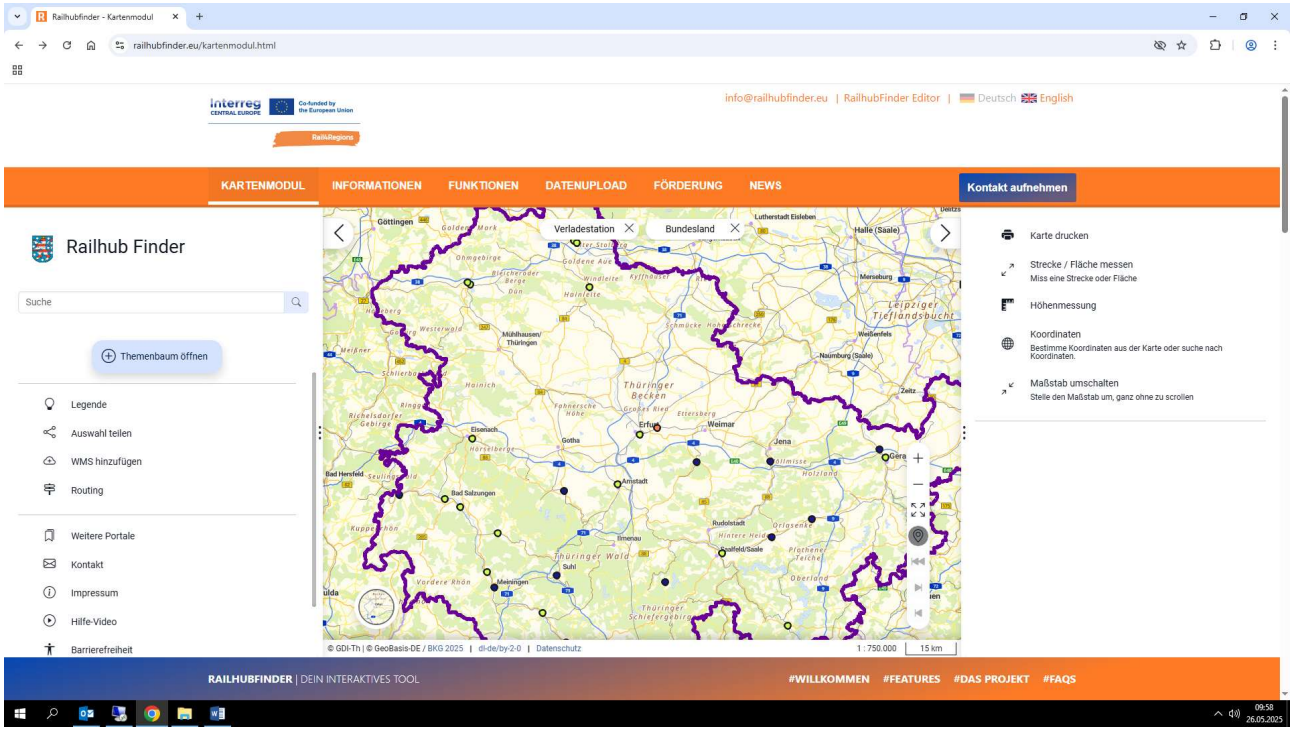
The tool will be used to record the potential of existing loading points, i.e. all access points to the rail network for freight transport, on a map. The economic activities in the viewer are also to be displayed in order to better recognize possible synergies. During the development of the RailHubfinder, particular emphasis is placed on the completeness of the metadata behind the loading points, which should provide the user with a quick and clear overview of the capacities and possibilities of the loading point. In addition, there are various auxiliary functions, such as the routing function, which offers a simple display option for time and length-related distances.

Generell information

The Railhub Finder was developed in the open source geoportal “Masterportal”. The Masterportal code is optimized for the following browsers: Mozilla Firefox, Microsoft Edge and Google Chrome. The use of these browsers is recommended. Other browsers may not support some functionalities or only support them to a limited extent; the layout and view of some tools may also differ per browser.

You would like to use the Railhub Finder to search for and edit rail freight transportation facilities. We will show you how to find it and which basic functions you can use. The easiest way is to enter Railhub Finder in the search mask of your browser and select it from the results displayed, or enter Railhub Finder.eu in the address bar.

Landing page



Landing page with control elements in the desktop view

Functions of the Railhub Finder

The start page of the Railhub Finder shows the interface shown before.

In the map module at the bottom right in a vertical arrangement, there are function buttons for adjusting the screen view - activate full screen view, zoom in/out view, display back to start view, next view and last view. The scale currently displayed is shown in the footer. The display is in 15 scale levels from 1:100 to 1: 2,000,000.

To the right of this you will find a distance indicator for better distance estimation. In the left-hand menu column you will find all the thematic map layers currently available in the viewer, which you can call up using the theme tree. The data layers are explained via the info button. When starting the Railhub Finder, the background map Basemap.de and the Thuringian state border are selected. The Legend menu item provides the corresponding explanation of the symbols for each active map. In the search field, you can search for locations by entering free text.

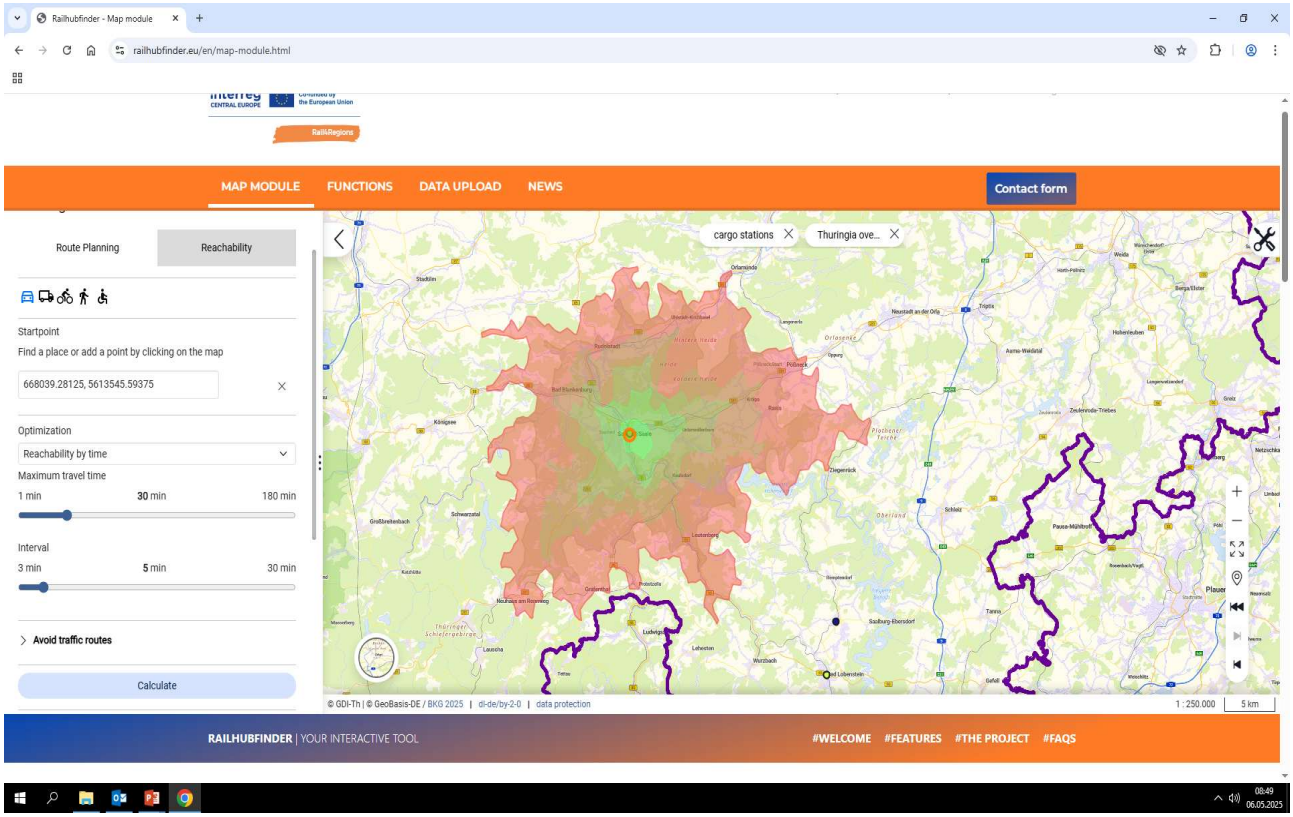
In the right-hand menu column you will find useful tools such as the measurement function, the function for creating height profiles, the option to print a map and much more. You can use the coordinates function

to display the coordinates of the mouse pointer on the map. The map scale can be adjusted as described above using the scale function.

The routing function in the left-hand menu column of the start page makes it easier to determine distances and catchment areas in order to better calculate the cost-effectiveness of transport routes between companies and loading points. With the help of time or distance instances, the tool offers The routing function in the left-hand menu column of the start page makes it easier to determine distances and catchment areas in order to better calculate the cost-effectiveness of transport routes between companies and loading points. With the help of time or distance instances, the tool offers both loading point operators and companies the oportunity to better calculate their needs and adapt loading points to these needs.

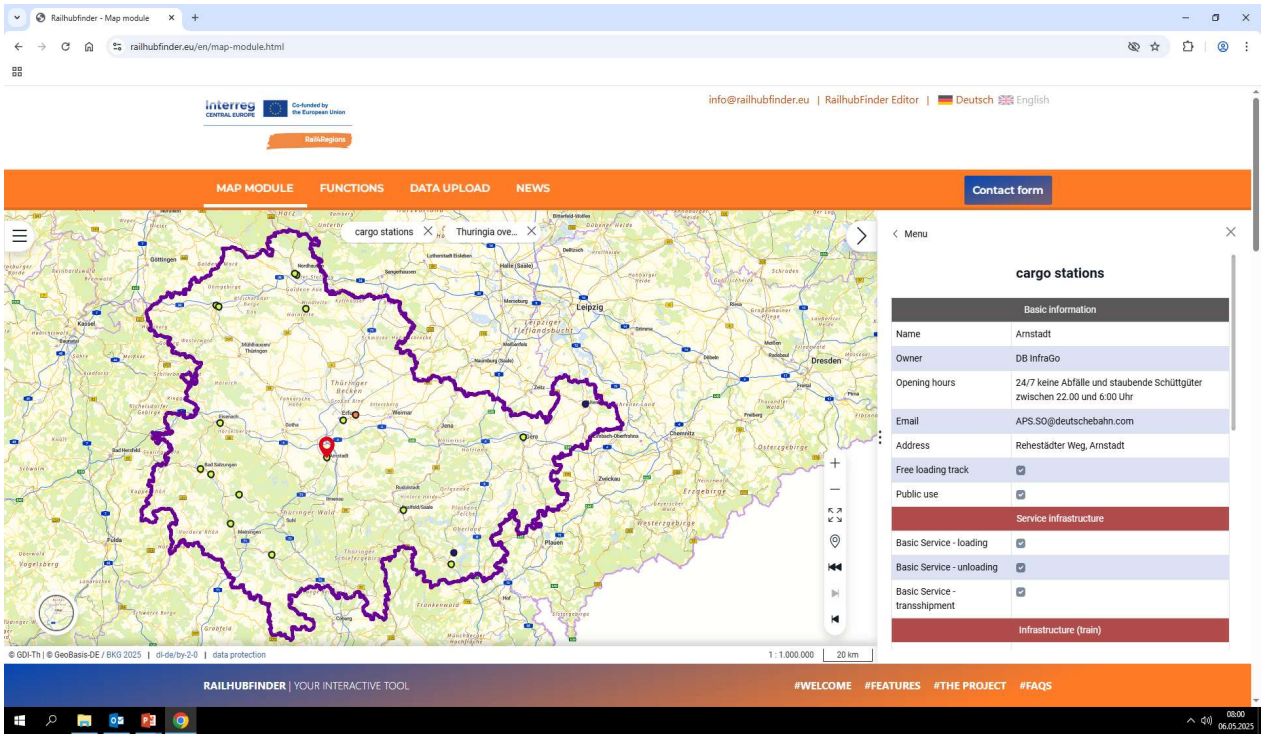
In the Route planning sub-item, a preferred route can be automatically determined and displayed by simply selecting a start and a destination point on the map according to the choice of means of transport from the production location to the potential loading location.

In the Accessibility sub-item, corresponding time or distance catchment areas can be generated for production or loading locations, showing the time or spatial distance to a potential destination location.



Accessibility tool

Click on the points to display the meta information.



Displayed Metainformation

Further Functions

Measure distances/areas

The ‘Measure distances/areas’ function measures distances and areas graphically supported by a marker. Double-click to finish recording the distance or area.

The values displayed are subject to inaccuracies which are influenced by the following factors, among others:

- Scale

- Resolution of the map

- Resolution of the screen

- Input accuracy and number of digitized points and

- Distance of the measurement line or size of the measurement area

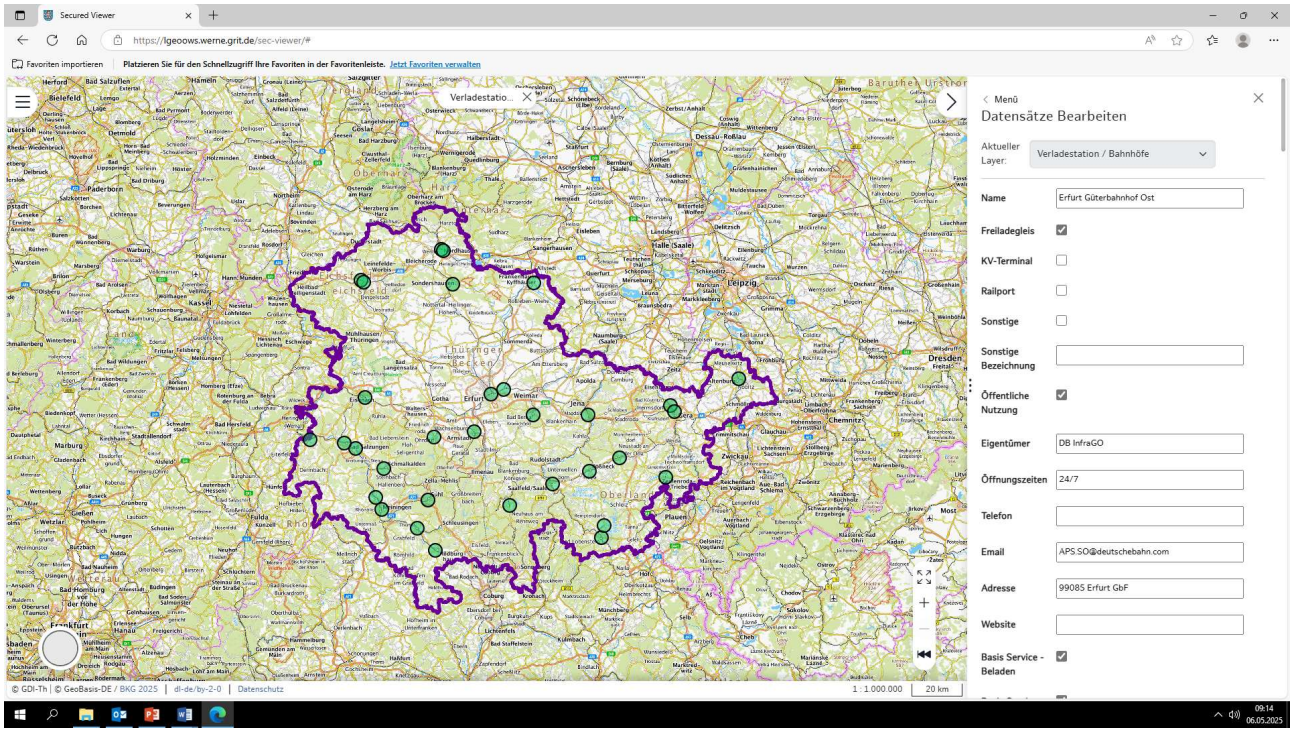
The measurement results can be output as a PDF document using the Print map tool.

Print

The A4 and A3 paper formats and the PDF file format are available via the ‘Print map’ function. Maps can thus be output in defined scales. Please consider any (browser) settings for pop-up blockers. The query as to whether the PDF should be opened or saved is made via a (further pop-up) window

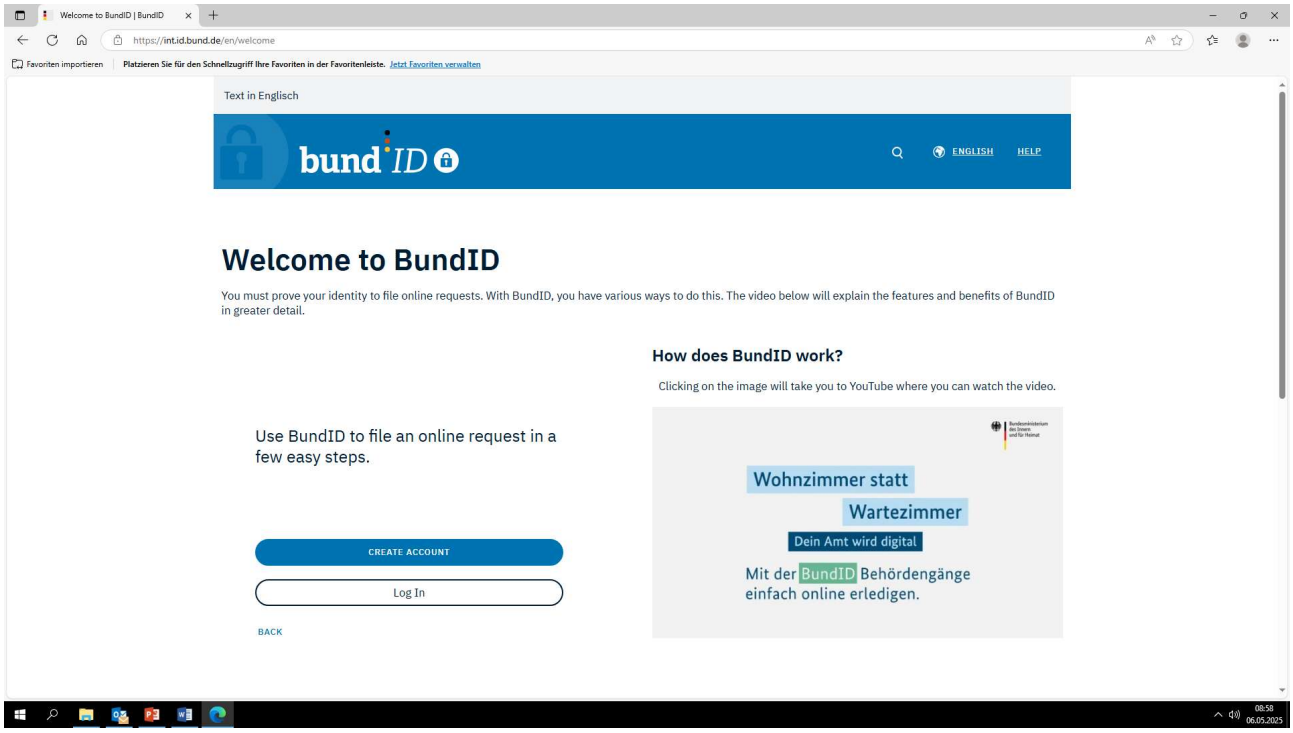
C. Raihub Finder Editor

The Railhub Finder has not only been programmed to visualize data, but also to enter data on rail freight loading points and on companies that are willing to choose rail as a means of transport for their goods. This data can be entered either by the operators themselves or by the TMIKL staff who maintain the Railhub Finder.



If you have no staff or no time to enter your information on loading points or your company yourself, please contact our staff using the contact form. You will then immediately be sent a pre-prepared form, which you should complete and return to us. You will then be entered into the system promptly. It only takes a few minutes to complete the form.

If you would like to enter the data for your facility yourself or change existing data records, you can do this using the Railhub Finder Editor. To do this, you must first register using the BUND ID registration.



After registering, you will be redirected to the editor area. Here, under the menu item Edit data records, you first have the option of choosing whether you want to enter data on a loading point or data on a commercial enterprise interested in rail freight transport. You can then choose whether you want to enter a new data record or change an existing data record. Once the data has been saved, it appears as metadata for a point defined on the map.

Why is it worth using the Railhub Finder ?

Firstly, it provides a quick overview of regional intermodal transhipment points directly on an interactive map.

Secondly, the stored metadata provides users with transparent information on infrastructure, capacities and location details.

Thirdly, the integrated tools for route and location analysis facilitate sound logistics and planning decisions.

Fourthly, the Railhub Finder supports the shift of freight transport to rail - an important contribution to sustainable mobility and thus to climate protection

And finally, the tool is available free of charge - for both public administration and business.

If you have any questions about the Railhub Finder, the TMIKL team will be happy to answer them at any time by phone or e-mail.

If you are interested, please visit us at

www.railhubfinder.eu

D. Technical Details

Frontend

The viewer was programmed based on the Masterportal version 3 basis as open source under the MIT license according to the code conventions of the Masterportal. Attention was paid to both accessibility and a responsive design (optimization for different devices). In addition, further data layers can be added to the preselected data layers at any time.

The viewer has a routing function (to calculate distances to/from loading points or business locations) as well as navigation elements for better user orientation. The Free State of Thuringia is part of the implementation partnership for the master portal.

Backend

The software is operated as a cloud-based container in the Thuringian State Computing Center. The viewer is administratively managed by the main geo editorial team at the Thuringian State Office for Land Management and Geoinformation (TLBG). The tool was first tested in Thuringia and then rolled out to all member states of the Central Europe program area. It can be expanded geographically and thematically at any time, provided that the necessary maps are available and freely accessible.