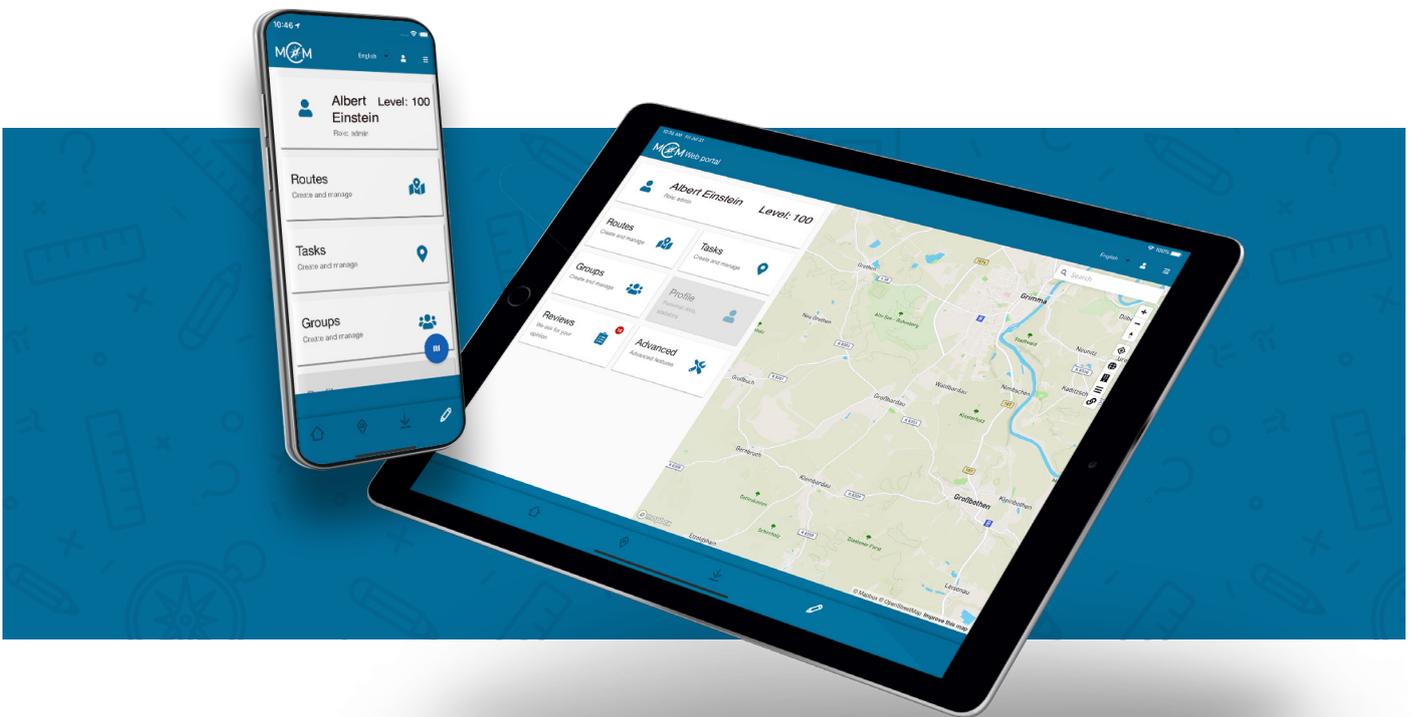


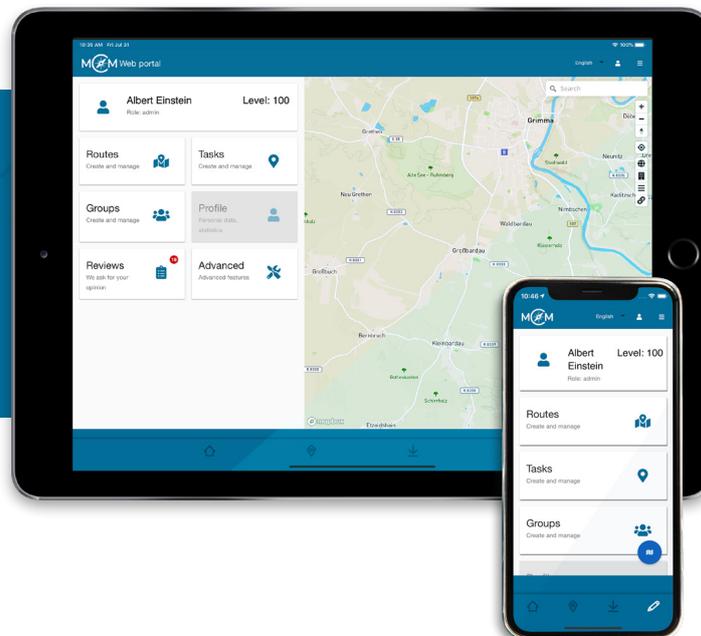
MathCityMap



Mathematics is everywhere – not only in classrooms. The world is full of geometric objects, combinatorial aspects and functional relationships. If you put on „mathematical glasses“, towers are transformed into gigantic

cylinders and pavements into wonderful mosaics. The tasks of MathCityMap are related to objects, places and situations from the real world and can only be solved on site.

The web portal



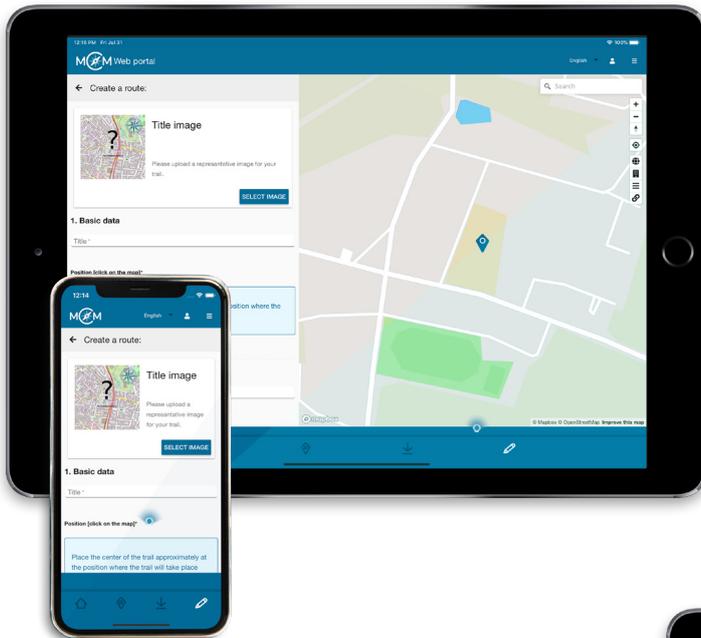
The project

Originally a second app for creating math trails was planned in this output. To reduce the complexity of the project, especially for its users, it was decided to integrate the existing web portal into the app. Otherwise, a third component would have been added besides the MathCityMap app and the web portal, which needs to be maintained. Essentially, the new app solely would have reproduced the functionality of the web portal and would have been optimized for smartphones. Instead, we decided to redesign the web portal to optimize it for mobile devices.

To launch an additional app only with the web portal seemed to be superfluous and could have caused confusion among the users. So we decided to integrate the optimized web portal as webview into the existing app. To prevent students from accidentally switching to the web portal, e.g. to look up solutions, it is inactive by default and must be specifically activated via the settings.

The portal

There are two parts at the desktop and tablet view: the details with your profile name and level is on the left side and on the right side is a map. By clicking on the „MCM“ logo, you will get asked if you want to leave the portal and get to the MathCityMap Website. On the right side of the header, you can directly change the language, manage your profile or log out. The navigation button on the top-right is also helping you to get through the portal. The map part is hidden in the mobile view and you just see the details – so it is easier to navigate through the web portal. To switch to the map view, you need to tab on the map button on the right-hand corner. By tabbing again on the list button, it will bring you back to the navigation.



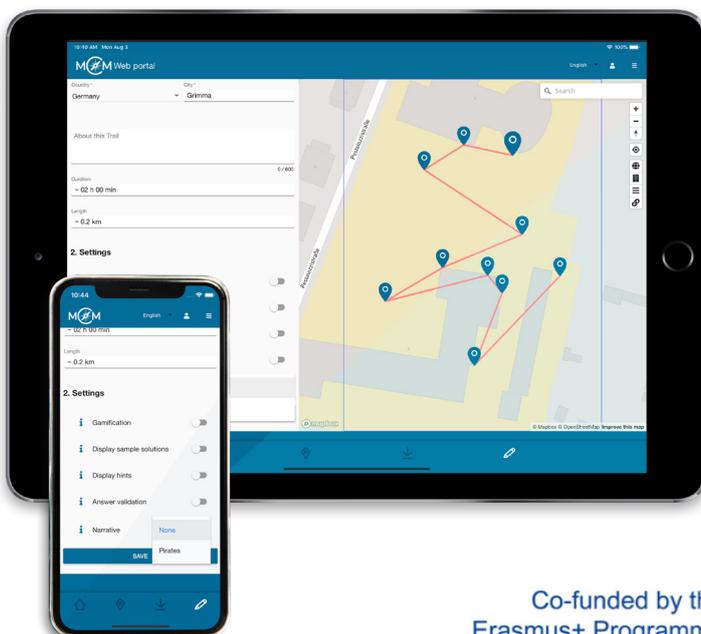
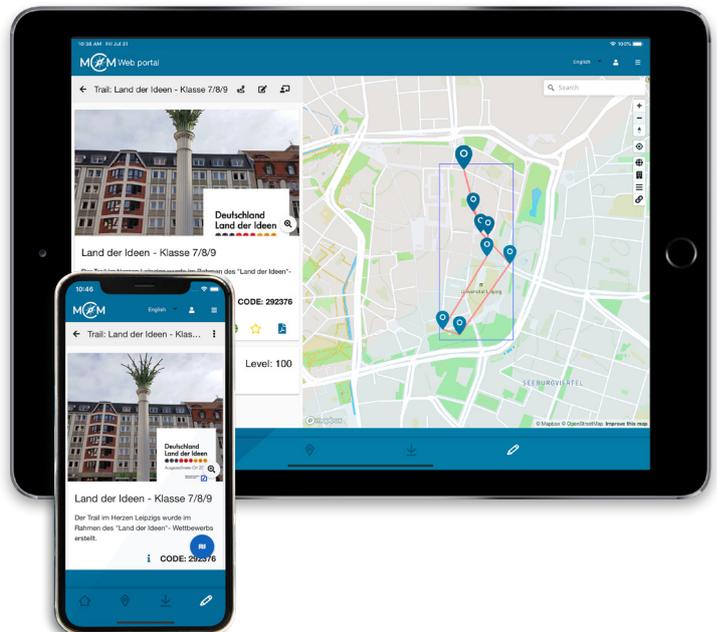
Trails and creating trails

In the section „routes“ you can see a list of public routes, recommendations, your favorites and an overview of all trails. You can filter them by distance, the newest and grade level.

If you create a trail, you can choose the title, the image and where this trail is located. Sometimes the image is important to find the right location or object.

Trail detail

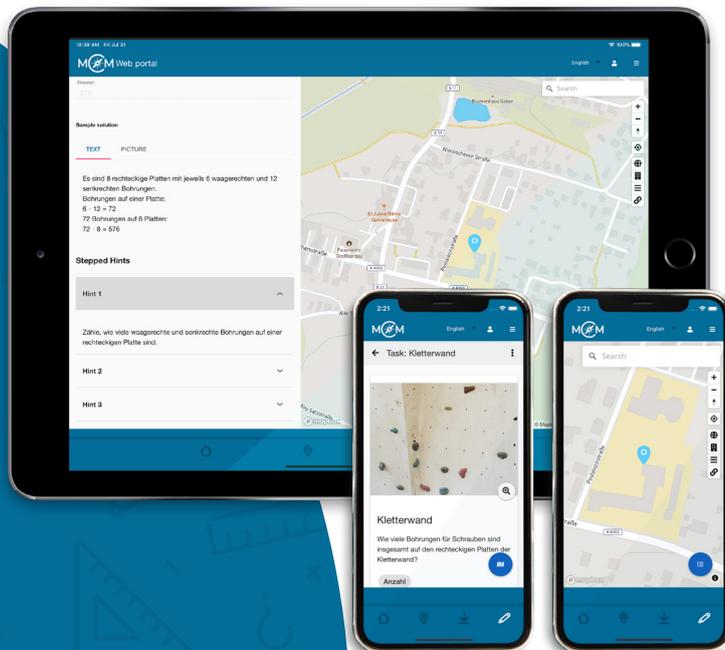
Here is a detailed information about your chosen trail. On this view, you can find the difficulty rating in school grade, a little description and the trail code. The icons show you which tools you need to solve this trail and if the visibility is public or not. You have also the opportunity to add this trail to your favorites by clicking on the star. If you want to download this trail as a PDF, you need to click on the PDF symbol. Further below, you have detailed informations about the number of tasks and the dimensions of the map.



Editing trails

The three dots mean, you can find several functions. There you have the options to edit the trail details and which tasks are parts of the trail.

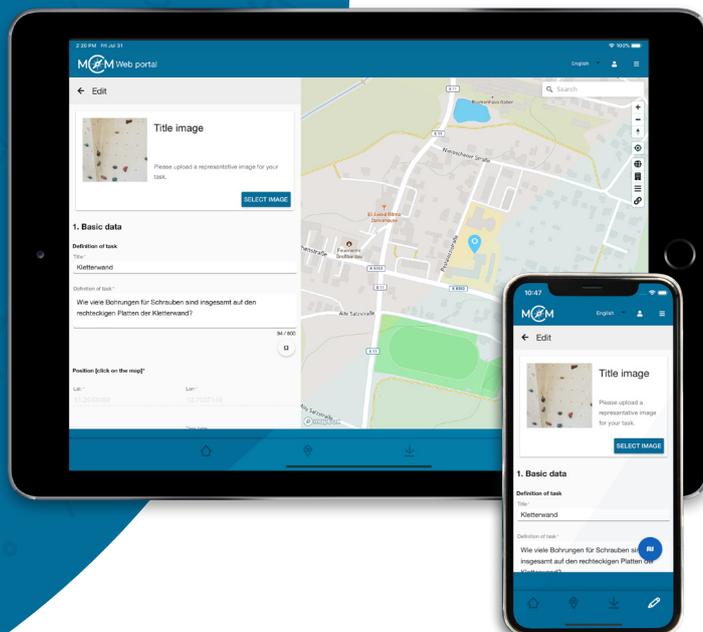
When you edit a trail, you can change the title, the image and descriptions. Furthermore, you can configure additional information of your trail which includes selecting a narrative for your trail.



Task detail

Each marker on the map represents a task at the given location. A cluster of tasks is displayed by a circle showing the number of tasks. By clicking on one of the markers you can see the name and a preview of the task shown in a card that slides out, clicking on this card opens the „task detail“ view.

The „map“ button shows the location on the map.



Editing tasks

Similar to editing a trail, you can change the image, title and description of the task. Additionally you can change the sample solution, the hints and the meta data of the task which among others includes the difficulty and tools required.

By tapping on the map, you can change the position of the task.



You can find us on YouTube!

Tips and tricks on how to use the MCM web portal on smartphone and tablet.
Learn how to switch from list to map and to properly use hidden functions.

