Circularity Tool v0.7
User documentation

25.03.2026 (Note: Machine Translated from original in German)

introduction

This document is intended for users of the "Circularity Tool" application. Prior knowledge of the *eLCA Component Editor* is required.

Currently, two tools are required for the application. A building life cycle assessment is a prerequisite for the circularity assessment, which is carried out using the BBSR circularity tool.

The building life cycle assessment is carried out using the BBSR tool eLCA.

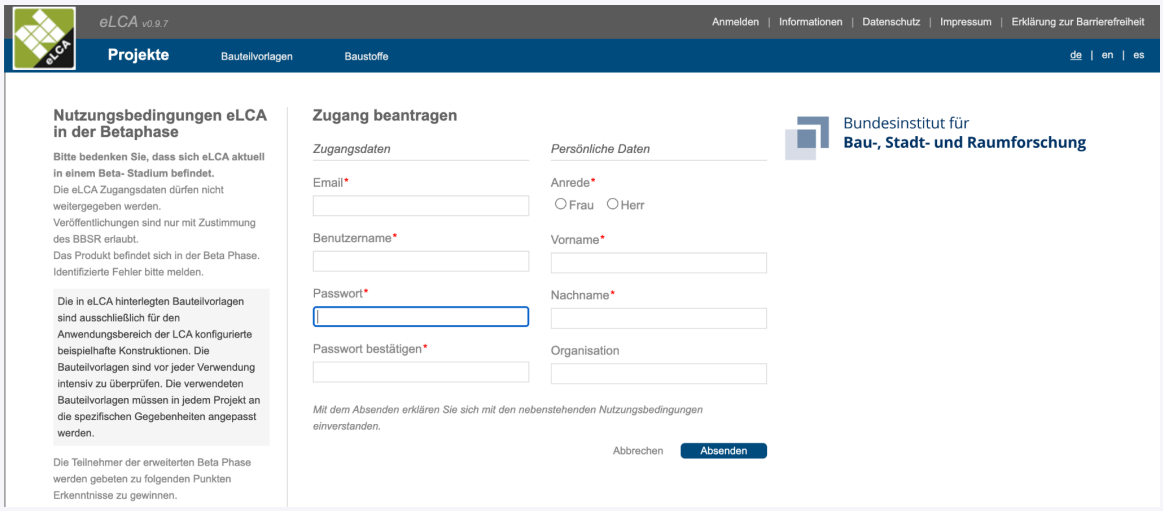
eLCA: https://bauteileditor.de/

Circularity tool: https://zirkularitaet.bauteileditor.de/

Support: elcasupport@n3xtcoder.org

Set up your eLCA account and project

Before you begin, you need to create your account and your project in **eLCA** furnish



Create an account:

- Go to the **eLCA registration page:** https://bauteileditor.de/
- Register (Request access) with your **Email and your password**.
- Check your account if necessary.

Import your project:

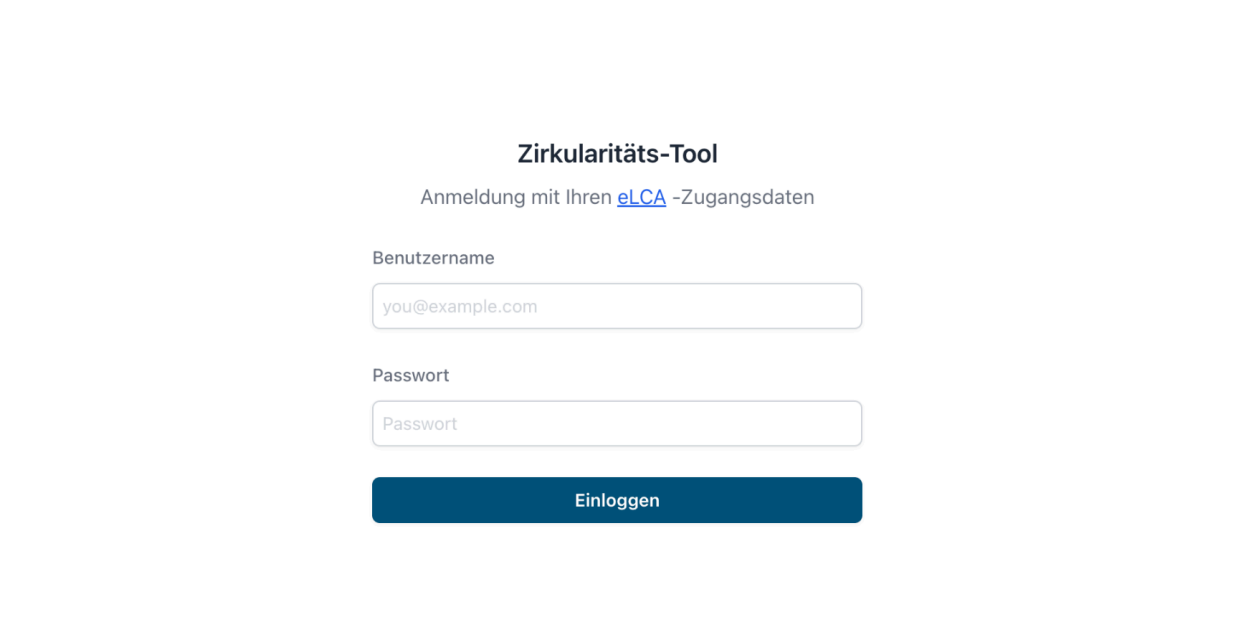
- If you have an existing project, you can use it with the **Import function** upload.
- Follow the prompts to ensure that all project data is imported correctly.

Alternatively, you can create a new project:

- If you don't have an existing project, create one manually.
- Add some **basic building elements** to begin.

Once your project is set up, you can proceed to the next steps.

Register for the Circularity Tool



1. Open the platform's login page:https://zirkularitaet.bauteileditor.de
2. Enter your login details (username and password).
3. Click the "Log in" button to access the system.

Choose a project and a variant

Choose a project

1. After logging in, you will be redirected to the main dashboard.
2. The dashboard displays a list of available projects.
3. Browse through the projects and select one to continue.
4. Click on the project name to enter the project variations.

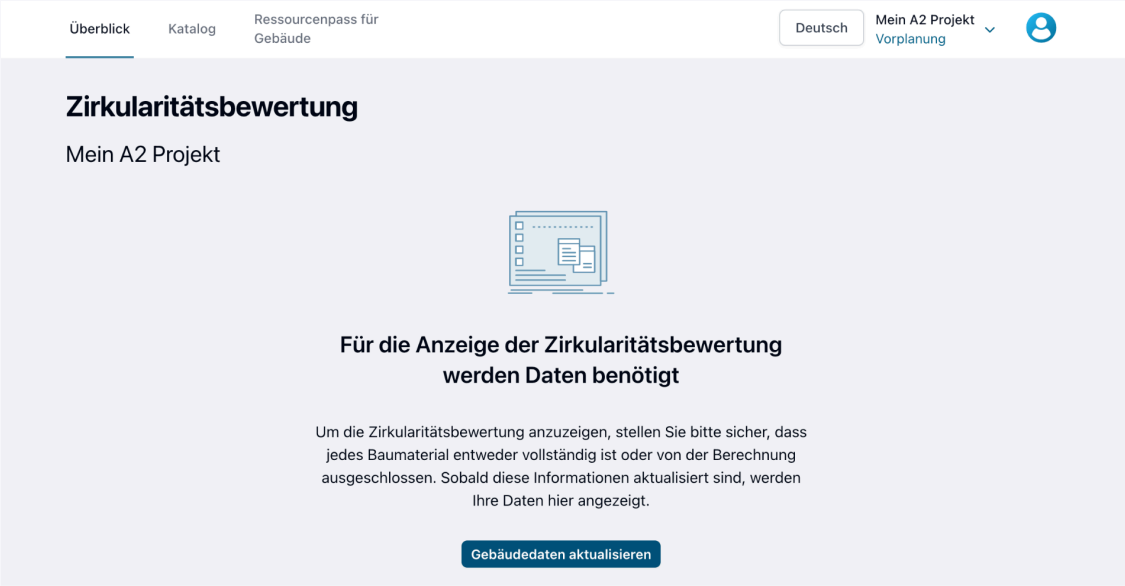
Choose a project variant

1. Within the selected project, various project variants are displayed.
2. Choose the option you want to work with.
3. Click on the option to continue.

Continue to the overview page

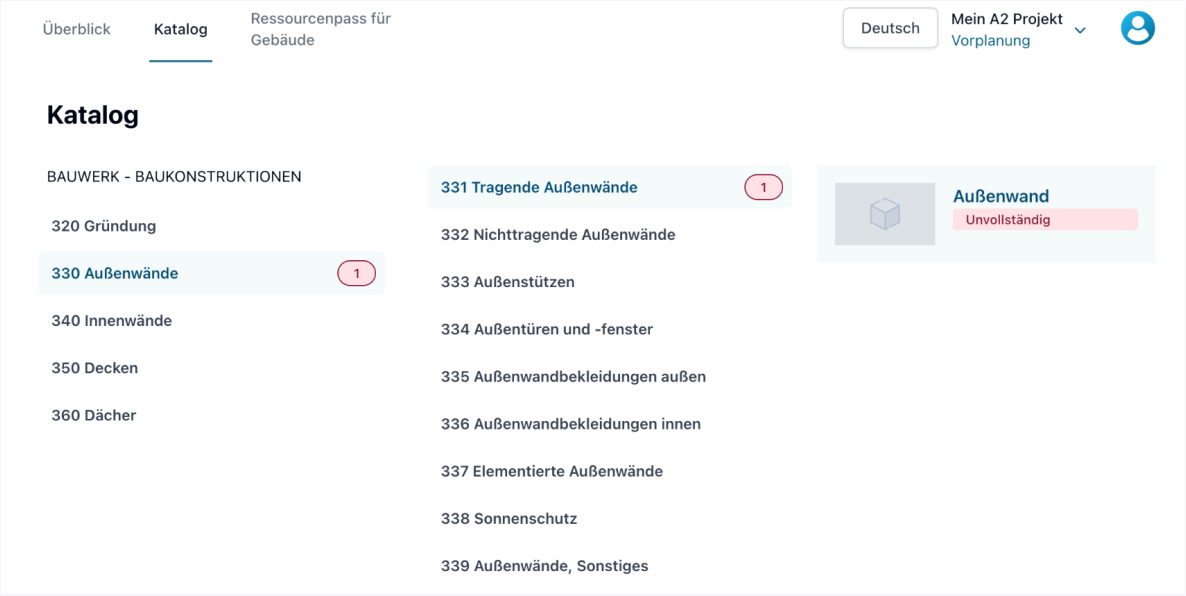
After you have selected the project and the variant, you will be taken to the overview page. **of the Circularity tools** forwarded for this project variant.

In order to perform the calculation, ensure that each component in the project is either **supplemented with circularity data,** or is excluded from calculation.



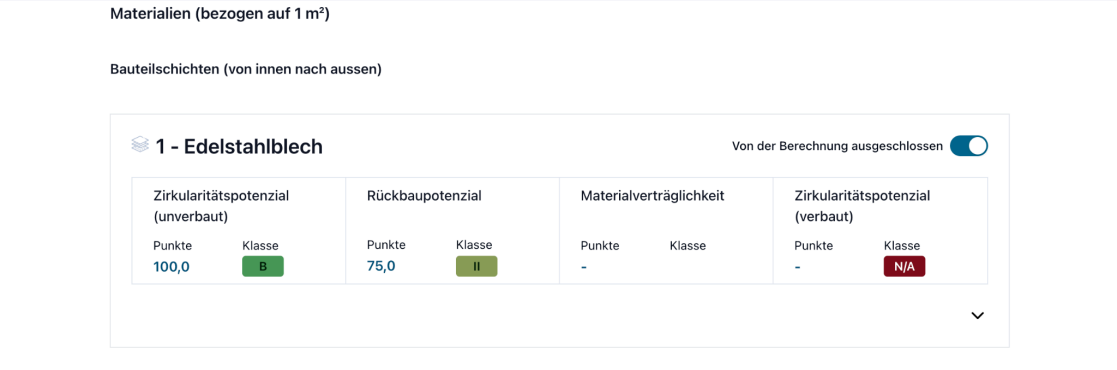
Adding information on the recyclability of materials or components

Go to the catalog page and find a component marked in red as "incomplete". Select the component to open the detailed view.



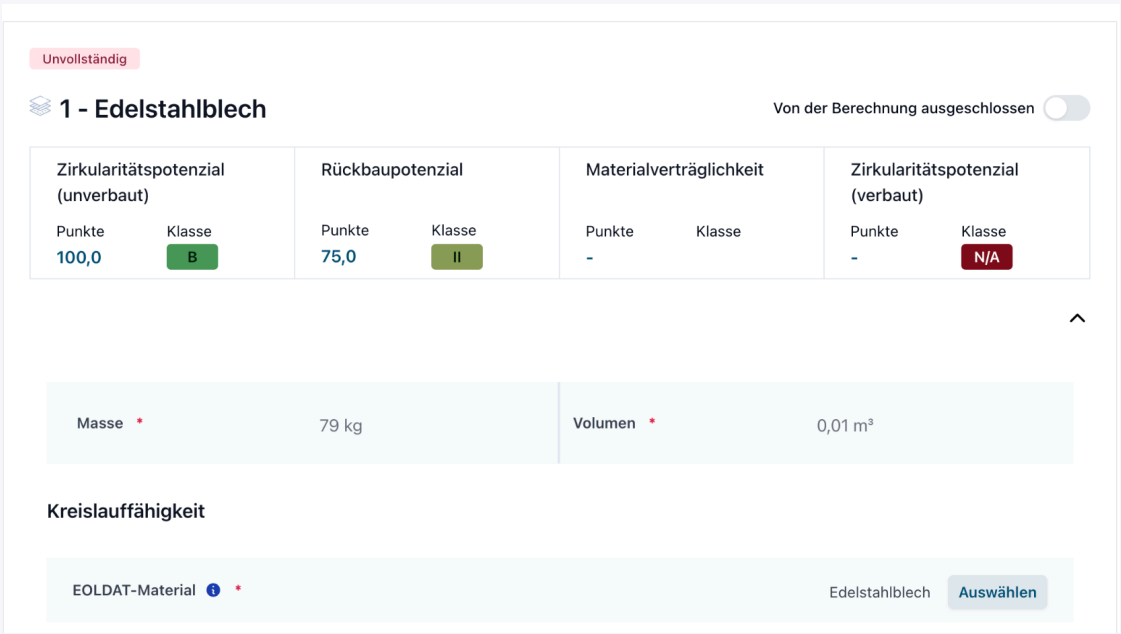
Exclude a component layer from the calculation

To exclude a building material from the calculation, click the toggle switch "exclude from calculation".



Select an EOLDAT material

The EOLDAT materials contain end-of-life (EoL) data and are provided by the BBSR in cooperation with the IBO Austrian Institute for Building and Ecology (https://eoldat.de). The data is already stored in the circularity tool. Building materials from ÖKOBAUDAT are automatically matched with an EOLDAT equivalent. If an EOLDAT material has not been automatically assigned, or if you wish to select a different material, press the "Select" button and choose a material from the list.



Choose a deconstruction potential

The dismantling potential describes the separability between two component layers. Choose one of four categories:

I Materials, components, or parts that can be dismantled non-destructively

II Materials, components, or parts that can be dismantled largely non-destructively

III Materials and components that can be dismantled destructively without introducing foreign substances

IV Materials and components contaminated with foreign substances

Optional: Changing the values for the circularity potential (uninstalled)

If you disagree with the circularity potential automatically assigned to the EOLDAT material, you can override it. Click the "Edit" button and select an alternative end-of-life scenario (EoL specific). Written evidence is expected in the designated text field.

WV Reuse or preparation for reuse

CL Closed-loop recycling

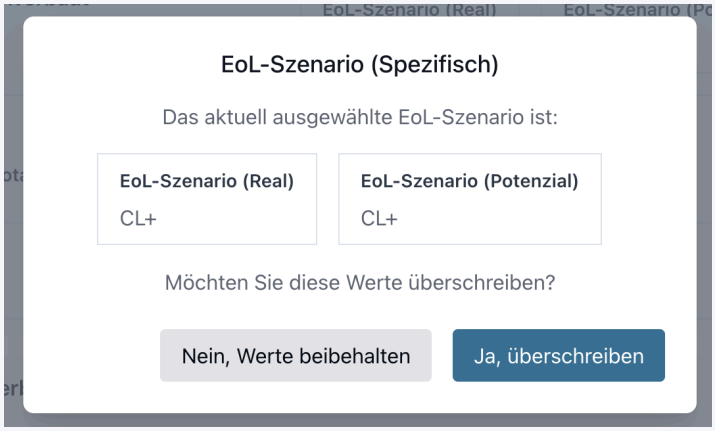
RC Recycling (open cycles)

SV Other material recovery / low-grade recycling

EV Energy recovery / Alternative fuel

EB Energy waste disposal

Dep Deposit



Consider material compatibility

For component layers that cannot be separated by type (demolition class IV), material compatibility with contaminants from other building materials must be tested. Material compatibility is divided into four classes:

S1 Monomaterial
(no impairment)

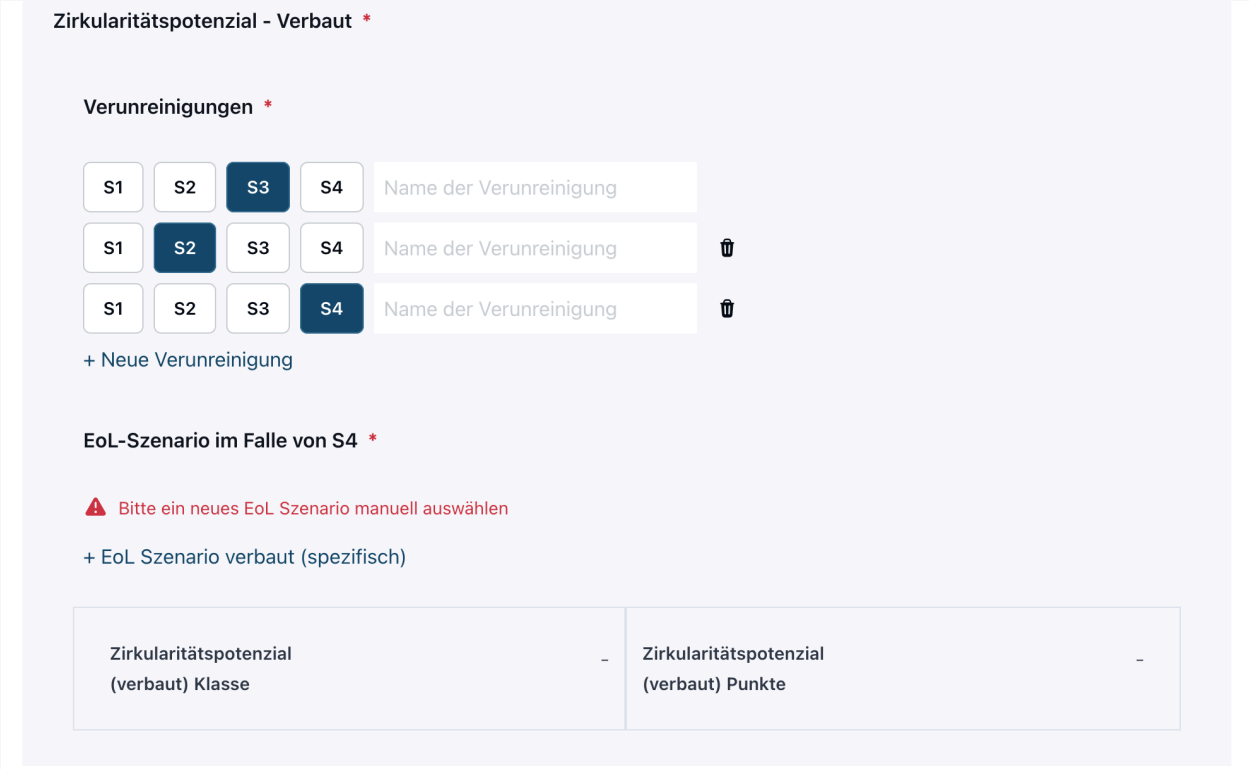
S2 Foreign substance
(increases the effort required for separation in the processing procedure or may slightly reduce the quality of the recycled material)

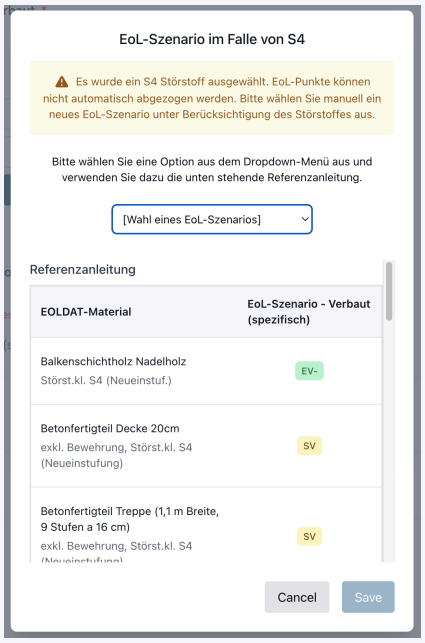
S3 Impairing disturbance or pollutant
(must be separated so that the circularity potential of the unused building material can be achieved)

S4 Incompatible disturbance or pollutant
(cannot be separated with economically justifiable effort. Recycling is no longer possible or only possible with very serious losses in quality.)

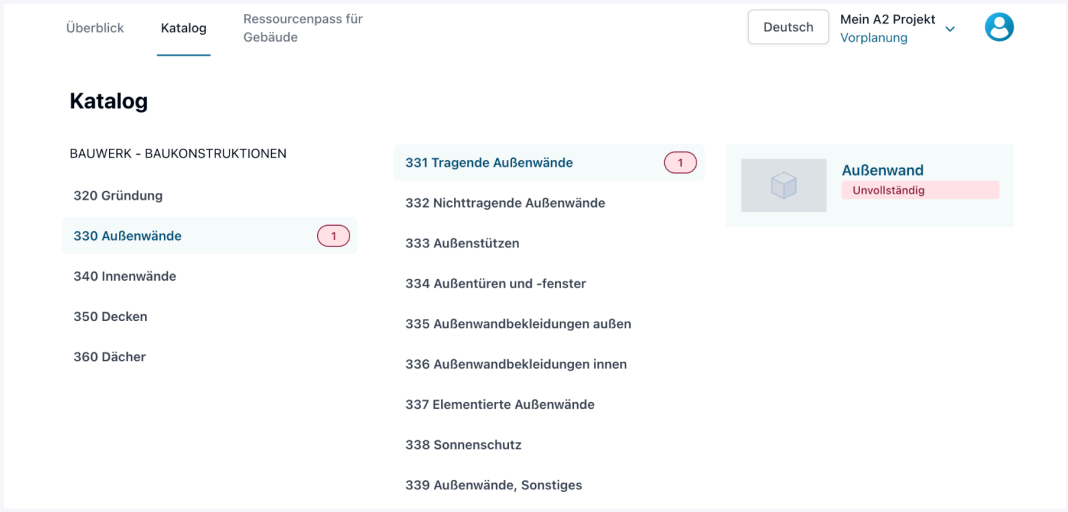
If there are no relevant contaminants, select "S0".

If an S4 contaminant needs to be selected, the user must choose a new EoL scenario.

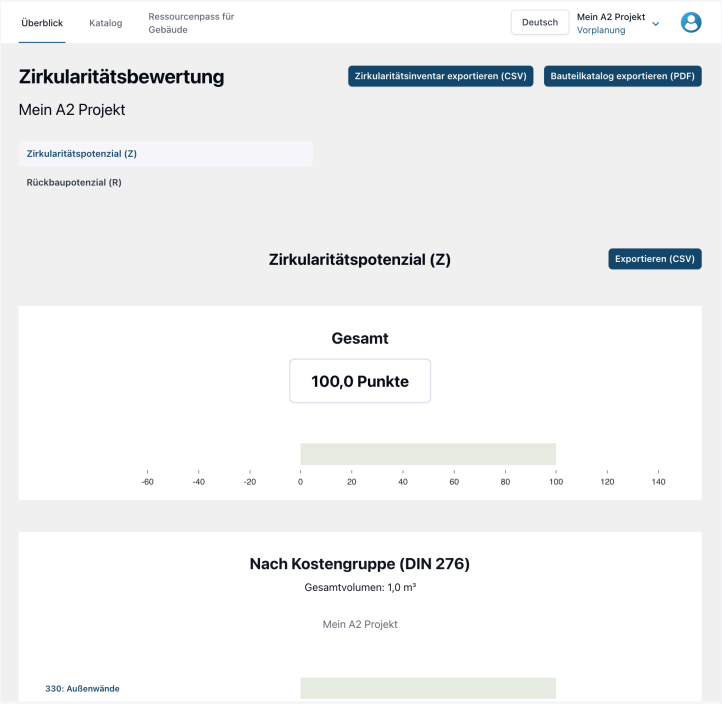




Make sure the data is complete for all levels, and repeat these steps for the other incomplete components.



Check the results on the overview page of the circularity tool.

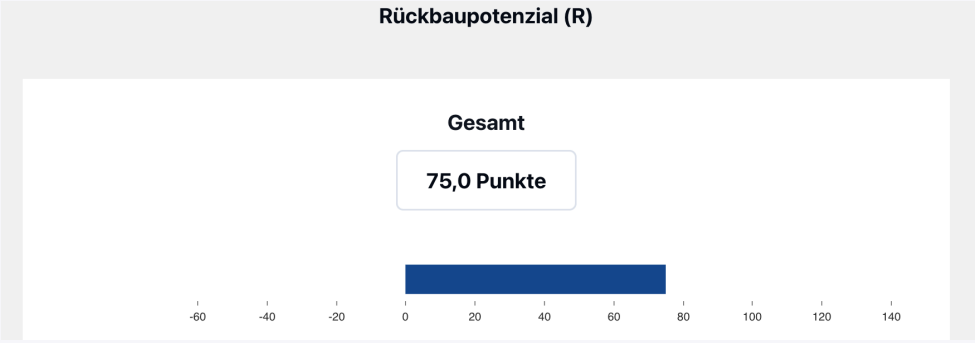


Once the materials in all components have been updated, go to the overview page.**of the circularity tool on**.

On the left side of the sub-navigation, the display options for the aggregated results at building level of the indicators circularity potential (Z) and deconstruction potential (R) can be selected.

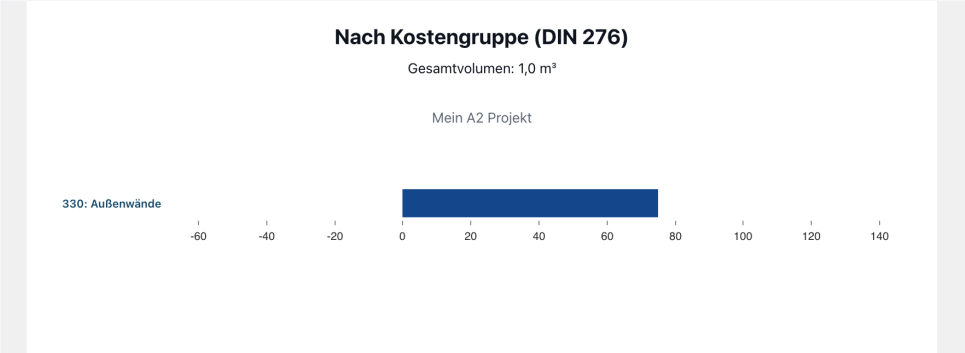
Three charts are displayed for each of the indicators.

1. The first diagram shows the indicator for the entire building.

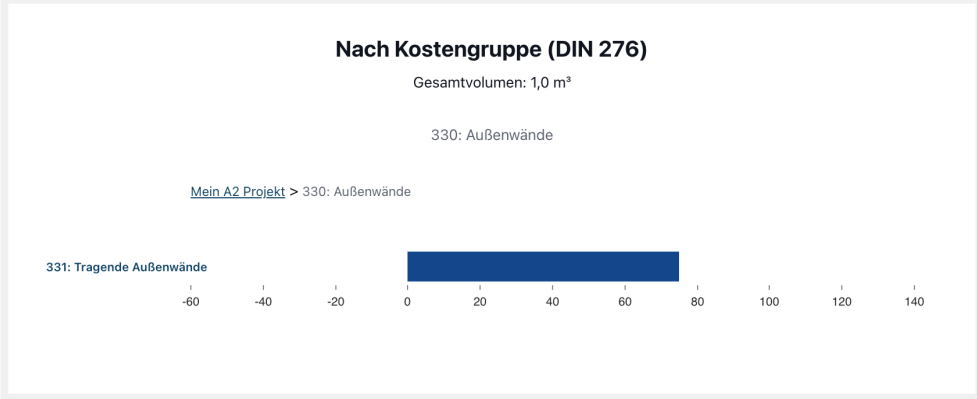


2. The second diagram shows the indicator by cost group (DIN 276).

a. Click on a cost group to go down the hierarchy and view a more detailed chart.

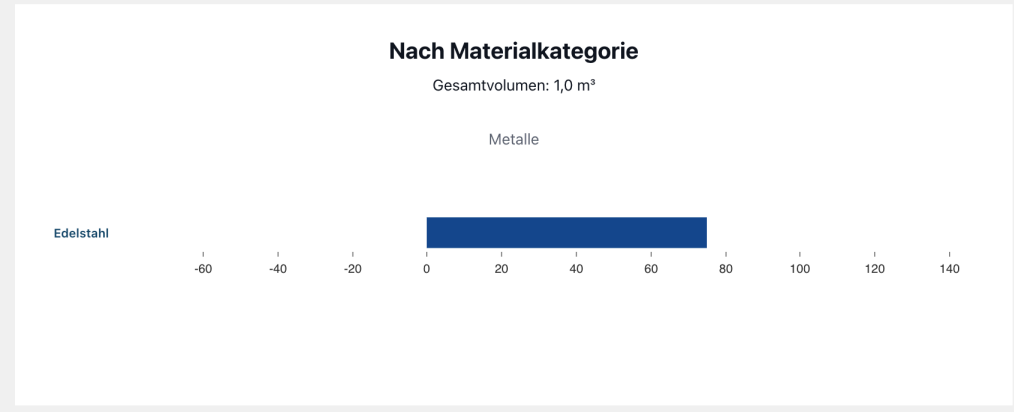


b. Use the breadcrumb navigation to move up the hierarchy.



c. At the lowest level of the hierarchy, the diagram displays the result of the installed building material. Click on the building material to access the details page of the corresponding component.

3. The third diagram shows the indicator by material category.



a. Click on a material category to go down the hierarchy and view a detailed graphic.
b. Use the breadcrumb navigation to move up the hierarchy.
c. At the lowest level of the hierarchy, the diagram shows the components, inthoseThe building materials are used. Click on a component to go to its details page.

Download the circularity inventory as a CSV file and the component catalog as a PDF file.

In the upper right corner of the overview, there is a button labeled "Export (csv)". Click it to download the inventory. The csv file can be opened with a spreadsheet program such as LibreOffice.

Circularity inventory of the individual materials

In the upper right corner of the overview, there is a button labeled "Export Circularity Inventory (CSV)". Click it to download the inventory. The CSV file can be opened with a spreadsheet program such as LibreOffice.

Component catalog

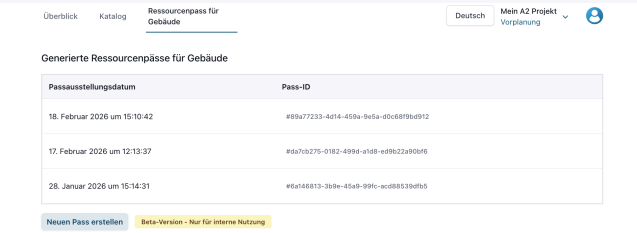
In the top right corner of the overview, there is a button labeled "Export component catalog (PDF)." Click on it to download the component catalog. The PDF file can be opened with any PDF reader.

Generate an aggregated inventory of the EoL class by material category

In the sub-navigation menu on the left side of the overview page, click "Circularity Potential". A button labeled "Export (CSV)" will appear to the right of the "Circularity Potential" title. Click this button to download the aggregated inventory. The CSV file can be opened with a spreadsheet program such as LibreOffice.

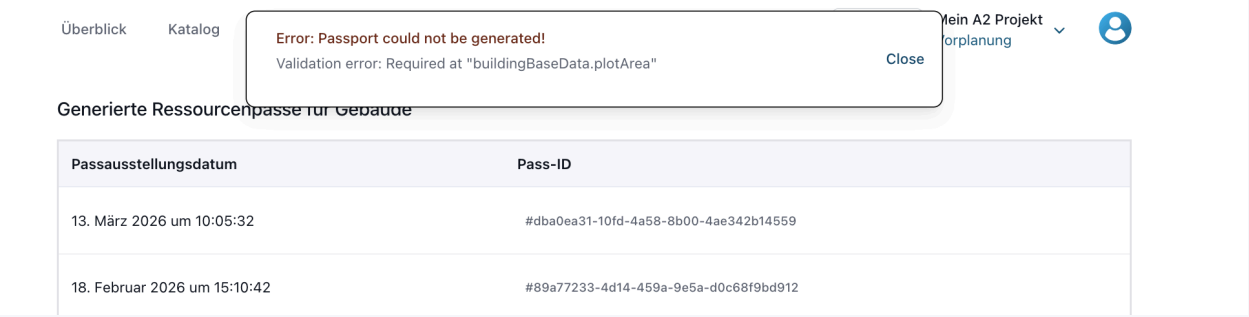
Generating and downloading a resource pass for buildings

1. Navigate to the "Building Resource Passport" page.



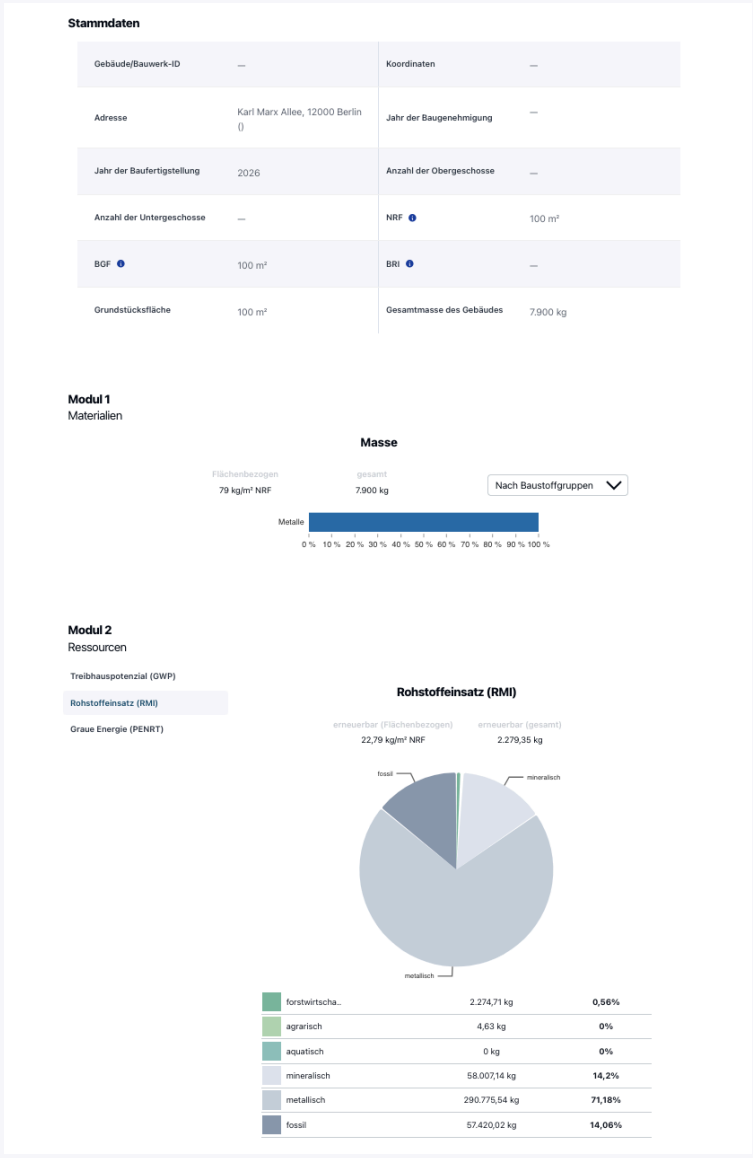
2. Click on "Generate Passport" to **create a resource passport for this project**.

3. Please wait until the system has processed the resource pass.
4. If the system displays an error message that refers to **missing required fields,** proceed as follows:



   - **Check the error message carefully** to determine if the missing fields in **eLCA** or in the Circularity **tool** are provided.
   - If the missing fields are **eLCA**, go back to eLCA and update the required fields.
   - If the missing fields are in the **Circularity tool**, return to the list of building materials and add the missing data.
   - Once all missing information has been updated, return to the page **Resource passport for buildings** and try creating the passport again.

5. **Once the passport has been successfully created, click on the link to open it.**
   - **View the overview page**, to ensure that all general project information is included.
   - **Navigate to the catalog**, to see the breakdown of the building materials.
   - **Open the details page** of the component, in order to check the completeness of the data for a specific building material.
   - Click on**"Download PDF"**, to save the resource pass to your device.
   - Make sure the downloaded file contains all the necessary information.



Log out

1. Return to the **Circularity tool** back.
2. Use the menu in the upper right corner of the screen to log out.