



Release notes

Release 2018.4 - 04-06-2018



Content

1. Introduction.....	3
2. Building.....	4
2.1. Building tab.....	4
2.1.1. Export building data to Excel.....	4
2.2. Building process tab.....	5
2.2.1. New tab on circularity on product.....	5
2.3. Financial tab.....	5
2.3.1. Overview page.....	5
2.3.2. Material groups.....	6
2.3.3. Layers of Brand.....	8
3. Administration.....	11
3.1. Materials – Financial tab.....	11
4. General.....	12
4.1. Support IFC version 4.....	12
4.2. Uniform user interface.....	12
4.3. Changes to new EU privacy law.....	12
5. Questions/Remarks.....	13



1. Introduction

Madaster strives for a continuous flow of releases with improvements or added functionalities. With each release of the Madaster platform, changes take place, visible or invisible to the user. This document provides an overview of the changes within the Madaster Platform.

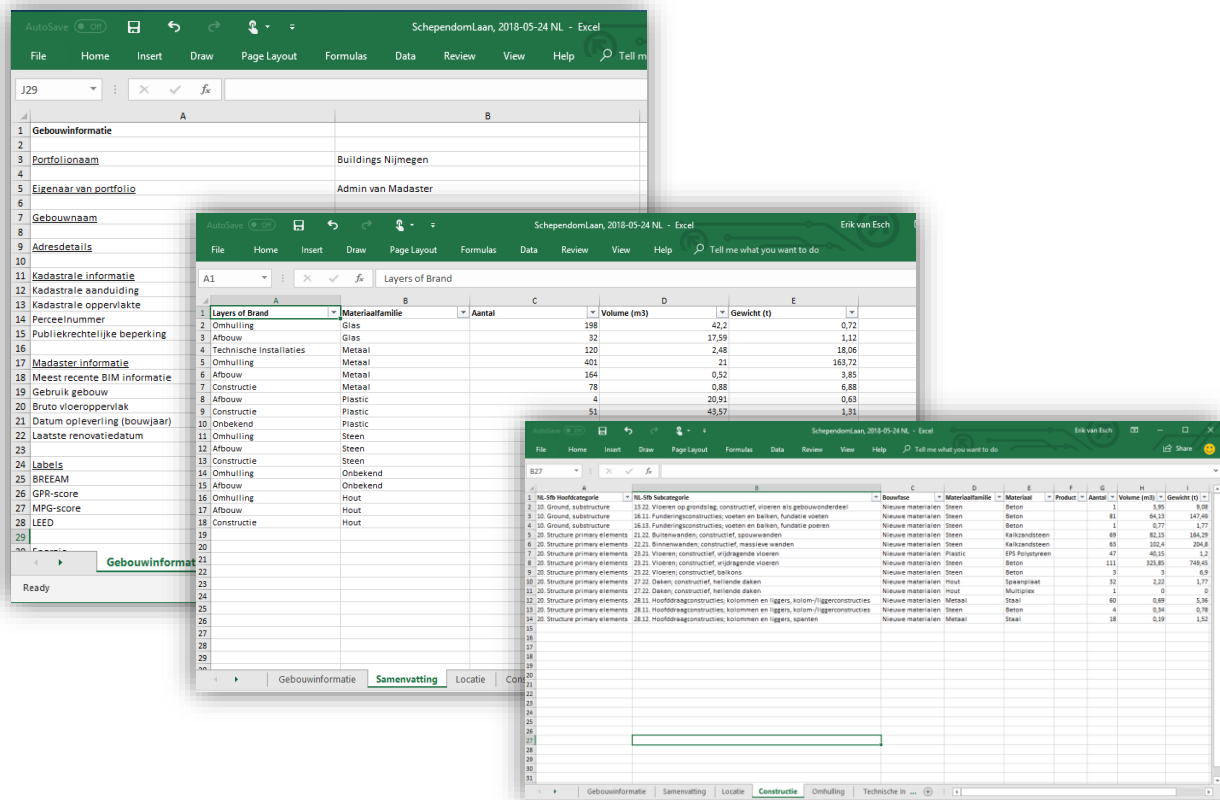
2. Building

2.1. Building tab

2.1.1. Export building data to Excel

When creating a materials passport on the general tab on the building, an Excel file is created in addition to the creation of a material passport, in which the following information is available on various tabs for own analysis:

- Building information: information such as portfolio name, building name, address details, etc. as shown on the General tab of a building.
- Summary: the number of elements per Layer or Brand / material family with the total volume and total weight.
- Per layer of Brand a tab containing NL-SfB main category / NL-SfB subcategory the building phase, material family, material, in which product it is used, the amount, volume and weight of the material in question.



The image displays three overlapping Excel spreadsheets generated from a building materials passport. The top spreadsheet, titled 'SchependomLaan, 2018-05-24 NL - Excel', shows general building information on the 'Gebouwinformatie' tab, including portfolio name, building name, and address details. The middle spreadsheet, titled 'SchependomLaan, 2018-05-24 NL - Excel', shows a summary of layers and brands on the 'Layers of Brand' tab, with columns for Layers of Brand, Material family, Amount, Volume (m3), and Weight (t). The bottom spreadsheet, titled 'SchependomLaan, 2018-05-24 NL - Excel', shows a detailed breakdown of materials on the 'Constructie' tab, with columns for NL-SfB Subcategory, Bouwfase, Material family, Material, Product, Amount, Volume (m3), and Weight (t).

Layers of Brand	Material family	Aantal	Volume (m3)	Gewicht (t)
1 Omhulling	Glas	198	42,2	0,72
3 Afbouw	Glas	32	17,59	1,12
4 Technische installaties	Metaal	120	2,48	18,06
5 Omhulling	Metaal	401	21	163,72
6 Afbouw	Metaal	164	0,52	3,85
7 Constructie	Metaal	78	0,88	6,88
8 Afbouw	Plastic	4	20,91	0,63
9 Constructie	Plastic	51	45,57	1,31

2.2. Building process tab

On the Building process tab, new functionality has been added.

2.2.1. New tab on circularity on product



MATERIAL	PRODUCT	CIRCULARITY	IFC
FEEDSTOCK SOURCES			
% Reuse		0	
% Recycled		0	
% Rapid renewables		0	
% Virgin		100	
LIFESPAN			
Technical lifespan (years)		20	
Average expected lifetime (years)		20	
Functional lifespan (years)		20	
END OF LIFE SCENARIO			
% Reuse		0	
% Recycled		0	
% Landfill		0	
% Incineration		100	
EFFICIENCY OF RECYCLING PROCESS			
% efficiency recycling process raw materials		75	
% efficiency of recycling process end of life		75	

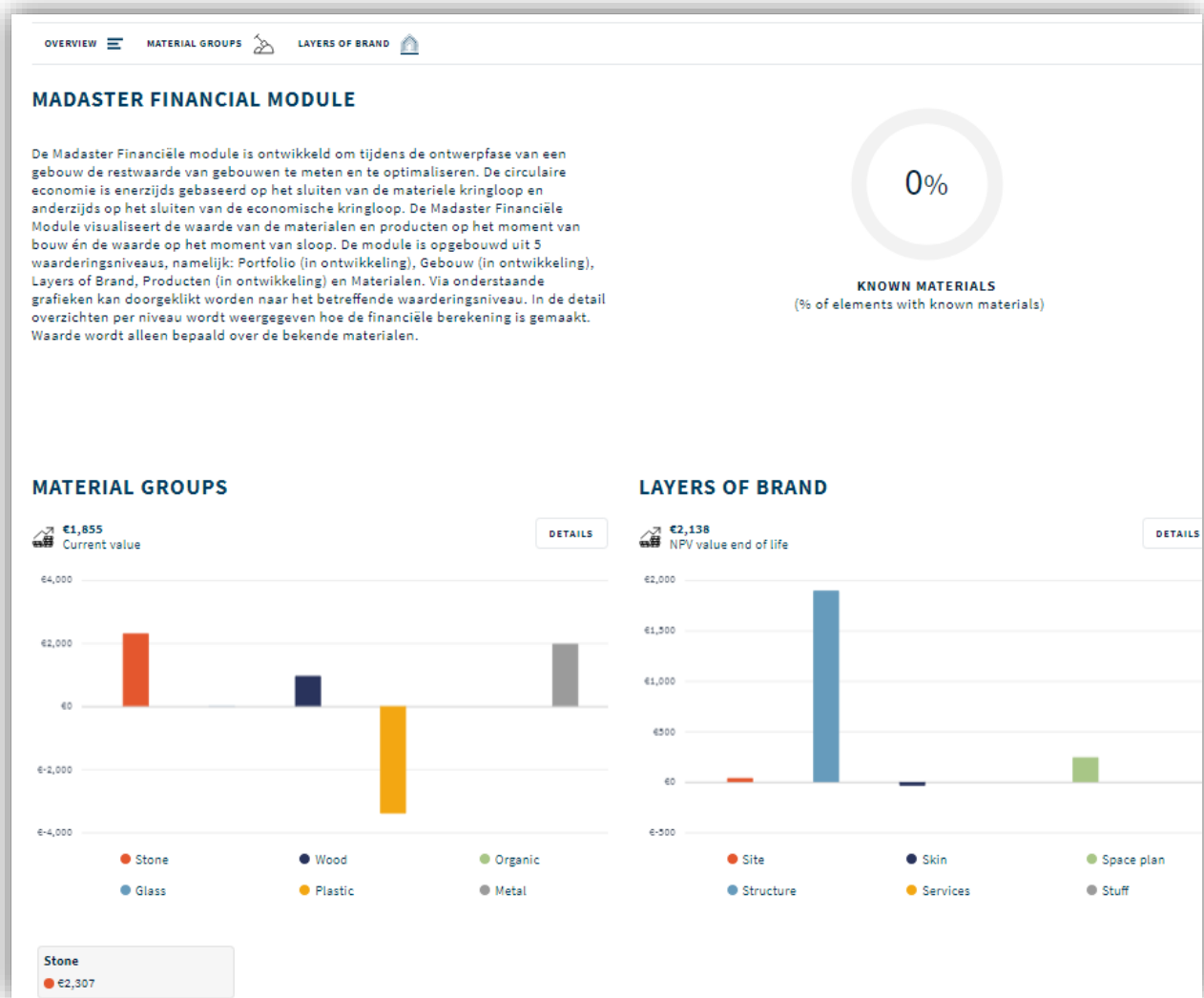
When a product has been selected in the building process tab, information regarding circularity is now shown in addition to the material, product and IFC information.

2.3. Financial tab

In this release the financial tab is added. The financial tab shows the end value of materials within a building at the end of the different lifetimes of products. Besides, the material value shows the current and predicted development of materials within the building. With the navigation field on top of the page you can navigate between the different screens.

2.3.1. Overview page

The overview page shows the different values in a dashboard style. First of all, on the right top corner, the completeness of the model is shown in a percentage of known materials. The goal is to reach 100% of known materials. With enough materials identified, a better view of value can be given in the material groups and layer of brand page. The difference between these pages are that the layers of brand page and the material group page is that the layers of brand page bases the outcome on the value at the end of the lifetime of materials based on the Layers of Brand (1994). In the material groups page, the current value and value development are shown. Using a Net Present Value (NPV) calculation, the outcome of both calculation methods are presented based on the inflation, BDB index and discount rate.



2.3.2. Material groups

Main page

In the main page of material groups, the value of materials is filtered based on the 6 material groups: Stone, plastic, glass, organic, wood and metal. Per material group, the value of materials is added towards a total value. These values are corrected in time with the correction factors: Demolition cost, transportation cost, recycling cost and a correction for the size of the material batch. On top of the value chart, the NPV of the whole building is shown. This NPV is based on the year that is selected. The selected year shows the year of harvesting of materials within the building.

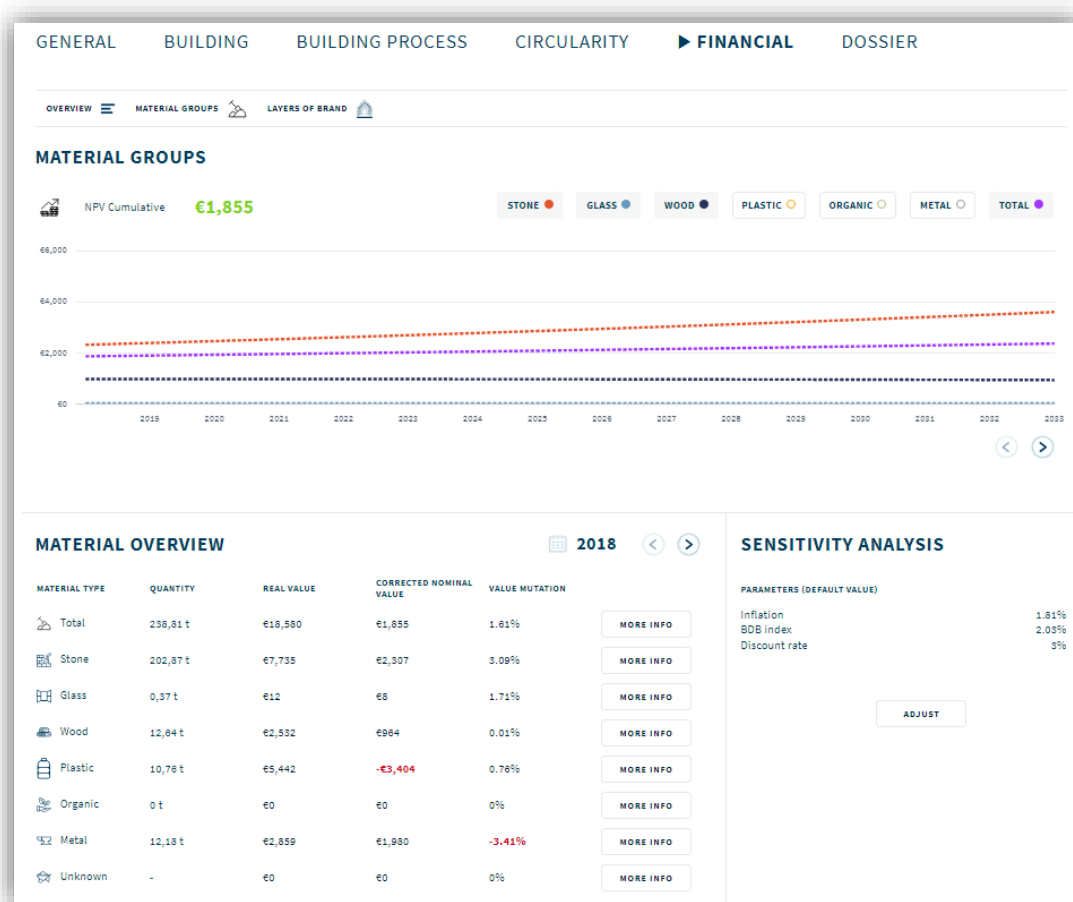
The material groups are presented above the chart. With these buttons, the different lines in the chart can be put on or off. The harvesting year can be determined clicking on a year in the chart or navigate with the year above the table.

In the material overview, first of all, the material type is shown. In the second column, the weight of the product in kg is shown. In the third column, the real value of this amount of material is displayed. This real value does not contain any correction factors, so these factors are discounted from the real value in the

corrected nominal value. The corrected nominal value also contains the inflation of that specific year. The last column shows the value mutation of that specific year.

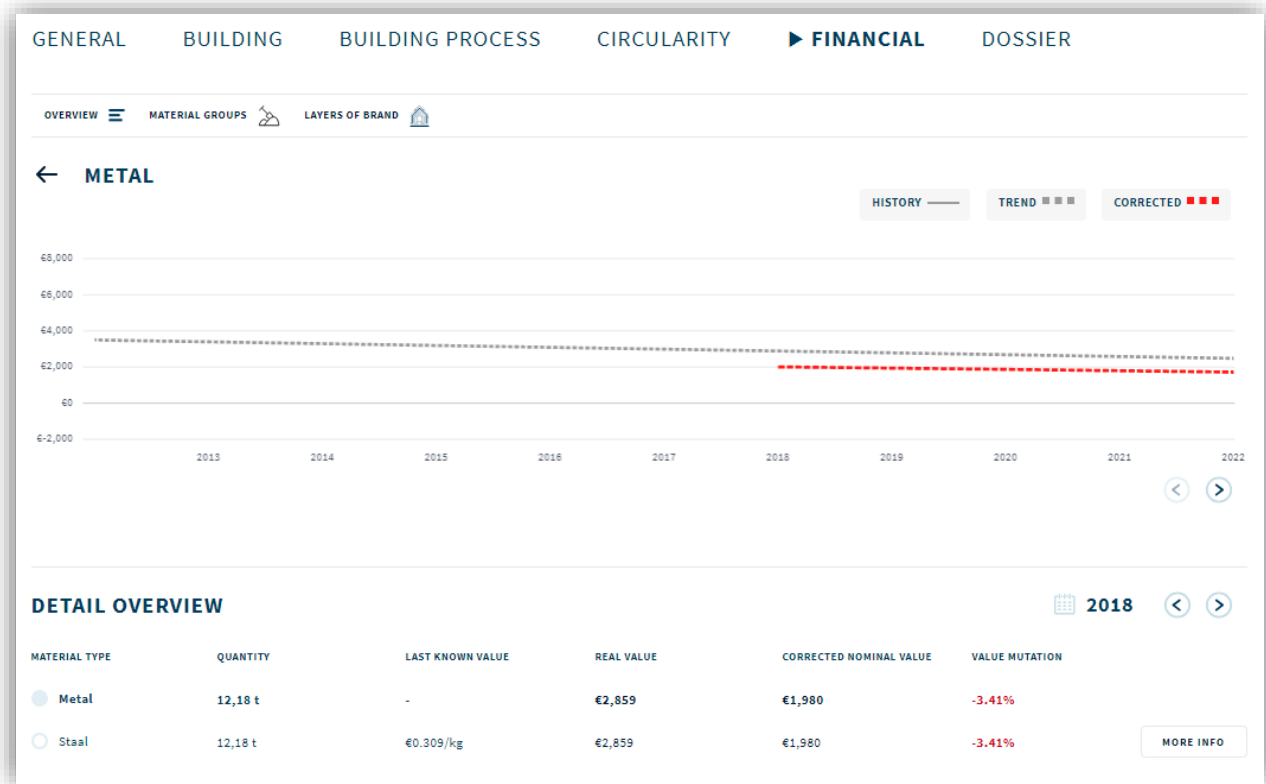
After every material family the button more info shows up. This button brings you to the next chapter of this document.

In the sensitivity analysis in the right bottom corner, the financial propositions can be tested. There are 3 parameters that are tested in this sensitivity analysis, namely: the inflation, BDB index and the discount rate. Inflation and BDB index are calculated as an average over the last year from 2001 till now. The discount rate represents 0,70% of 10 years state interest, 2% of risk and 0,3% premium. This makes a percentage of 3%.



More info screens

In the more info screens, the material groups are split up into the materials that are in the groups. On material level, the chart is showing the historical value, the trendline of these values and the corrected nominal value. The trendline is determined based on historical data in which the inflation and currency rates are deducted. Predicting towards the future, the future predicted inflation is taken into consideration. The more info button in this screen shows demolition costs, transportation costs, recycling costs and a correction for the size of the material batch. These are calculated automatically based on standardized values in the sector. The costs represent the deduction for the material value. In this screen, the time of value capturing can be determined where after the material values are generated for that specific year. The value is shown in real and nominal value. The value mutation is the difference between the value in the moment of harvest and the value of today according to the corrected trendline.



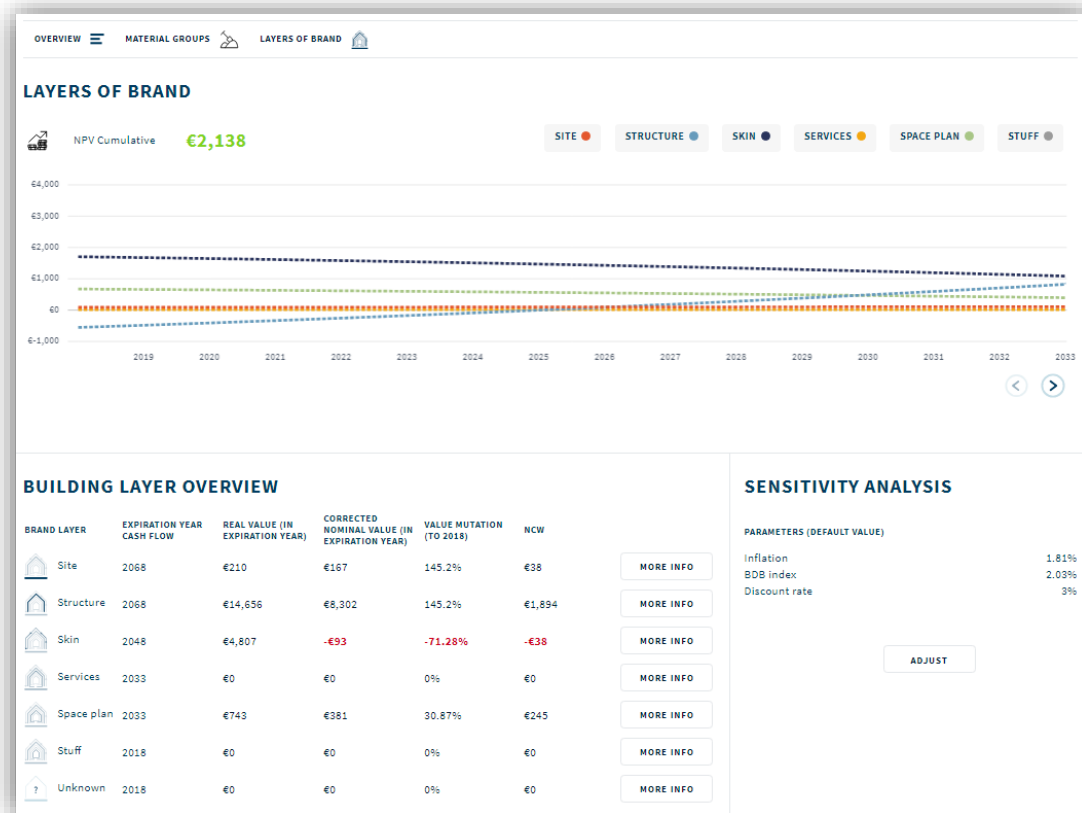
2.3.3. Layers of Brand

Main page

In the layers of brand tab, in contradiction to the material group tab, the materials are filtered based on the layers of brand (1994). This theory claims that there are 6 levels of materials within a building filtering the layers on lifetime. The different lifetimes of these layers are default given by Madaster and can be adapted in the general tab. Based on this filtering, the value of materials is determined per layer. The value on the end of lifecycle is calculated in a net present value calculation to the value of today. The sum of the Net present values is the NPV cumulative. This number represents the end of life value, capitalized towards today. The chart shows when the lines stop which happens at the end of lifetime. When a building is built in the past, the lifecycles start at the delivery date.

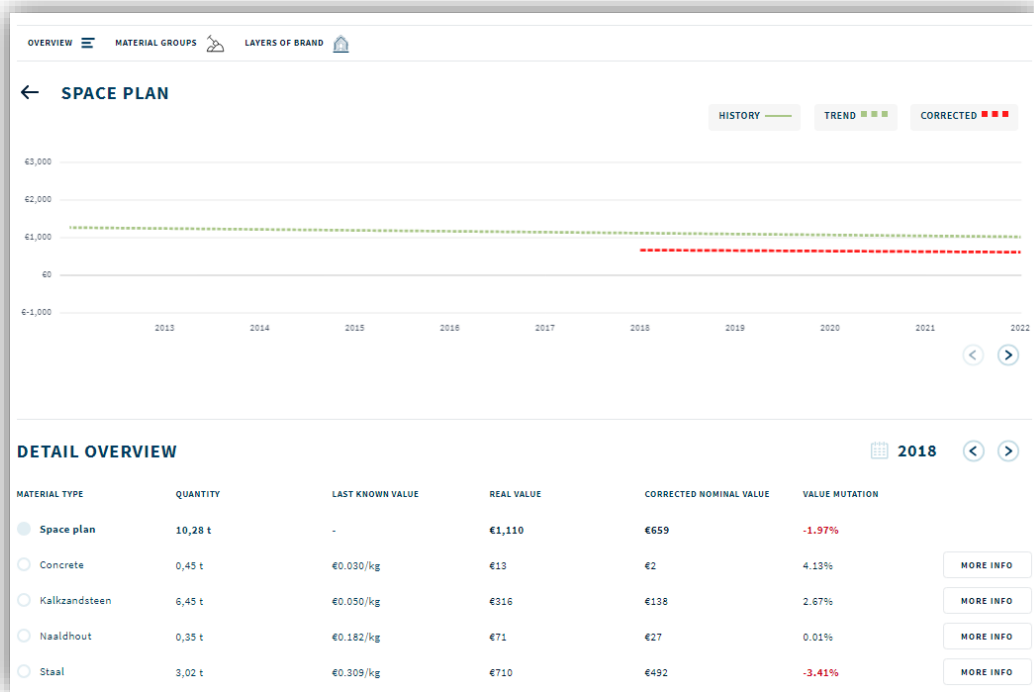
Next to every layer in the expiration year in the detail overview, the end of the functional lifecycle is shown. This value is followed by the real value in the end of lifecycle year. In this value the inflation in the future is not considered, the correction factors are also not considered. De corrected nominal value in the end of lifecycle year takes these factors into consideration. After that, the value mutation is shown in the end of lifecycle compared to the current year. The value on the end of the lifecycle is calculated back to today using the discount rate.

The sensitivity analysis for inflation, BDB index and discount rate is shown in the right bottom corner. Using these values, the future value and net present value are calculated.



More info screens

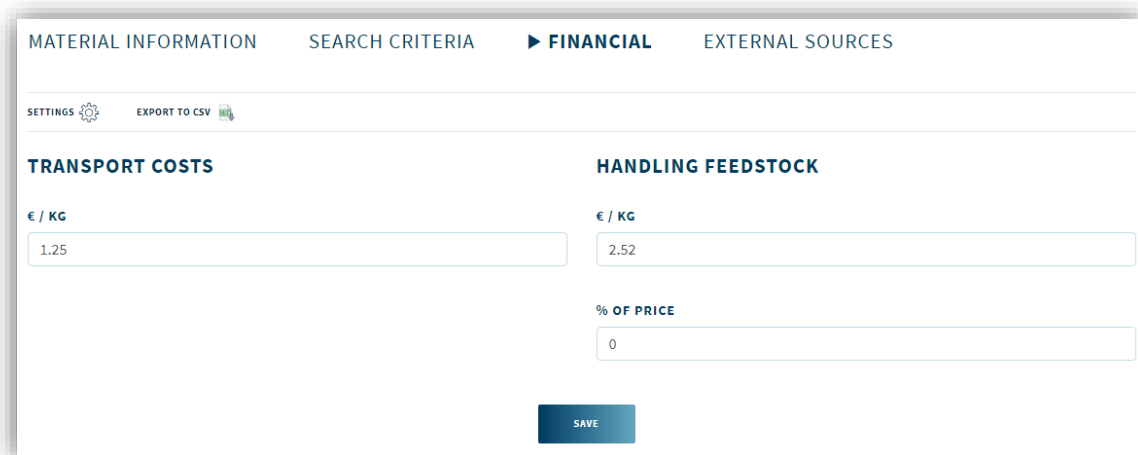
In the more info screens, the value of different materials within the building layers is shown. This screen had the same functionalities as the more info screen of the material groups screen but is filtered using the layers of Brand (1994).



3. Administration

3.1. Materials – Financial tab

When editing a material via Administration → Materials, the financial tab has been added to a material. Two sections can be edited here: Transport costs and Handling feedstock. These two values are used in the calculation of the financial value of materials in the Financial tab at building level.



Transportation costs

Here the transport costs for the material can be inserted per kilogram.

Handling feedstock

These are the costs that have to be spent for the specific material to process and adapt when harvested from an existing building before the material can be reused.

There are two options for pricing:

1. The price is stated as euro per kilogram
2. The price is specified as a percentage of the material price

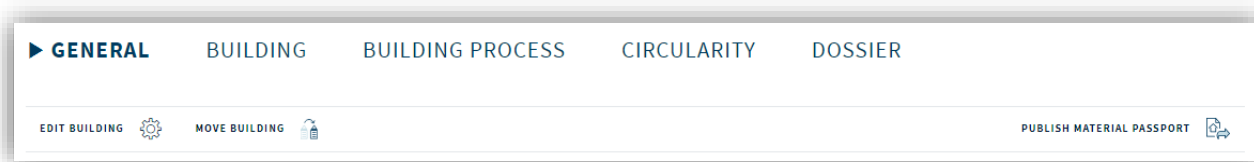
4. General

4.1. Support IFC version 4

In addition to IFC version IFC2x3, IFC4 is now also supported by the Madaster platform.

4.2. Uniform user interface

In a few places the interface had already been adapted to a new, clearer menu structure. This structure has now been implemented throughout the entire platform. For example, many functions scattered across a page now are collected at the top of the page.



4.3. Changes to new EU privacy law

Some changes have been made to the platform in order to comply with the new EU privacy law that came into force on May 25th 2018.



5. Questions/Remarks

Did you notice anything not working properly while using the Madaster platform? Please inform us by contacting our service desk.

Email address : service@madaster.com
Phone number : 085-0657436