

Forsta Visualizations July 2022

Release



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1 Introduction

This document describes the new and improved features in the Forsta Visualizations 2022 July Release.

If you would like to know more about these features, please contact the support team at dapresysupport@forsta.com and they will be able to assist you.

Best Regards,
Forsta Team



2 Overview

The Forsta Visualizations 2022 July update contains some great improvements, see the summary below.

Overall Calculations

- In many reporting situations it can be required to change the base size of a calculation for questions to show the desired values. As an example, this could be in a brand funnel where the base should include all respondents, instead of only the respondents that have answered the question. Until now this has needed a compute. With this release we have implemented "Rebasing" within the object/table itself. Options to choose from is "Selected question", "Total in filter combination" and "From other question".
- In this release Paired Z and T tests have been added to our CrossTable Tool. In upcoming releases this will also be added to our StoryTeller and StoryCreator. This test is most used when comparing the same set of respondents over time or different products. The test will only include the respondents that exist in both samples. If a respondent only exists in one sample, it will be excluded from the test.

StoryTeller

- In the latest update of Forsta Visualizations the StoryTeller Templates have been improved to also store original question codes and answer ID's. This means that if the saved question and answer code(s) already exist in the project it is being added to, the object/s will be populated with data settings directly.



- When a StoryTeller report is exported to Excel, there is a “Filters” sheet showing which optional filters were selected when the export was executed. This page has now been updated to also include Hierarchical filter, Variable Subset and Time Period.

StoryCreator

- To improve the workflow within StoryCreator, some buttons and features have been positioned to more logical locations. The direct export per object (png and excel) have been moved into the toolbar on the right side, the swap button has had a facelift and the option to turn off tooltips has been placed in the right click context menu.

Data management

- Just as questions can be tagged to improve question administration, answers can now also be tagged. The tags are, in the initial version, used to search for answers more efficiently in the Answer block page but later the tags will be supported in more administration pages and in report setup for better support for automated processes. The answer tags are editable by the administrator within the application or can be amended by the “Download/Upload meta data” function.
- Some smaller adjustments have been implemented for the Question Tags. Tags can now be added on multiple questions at the same time and acceptable separators for Tags in “Download/Upload meta data” are “,” and “;”.

3 Overall Calculations

3.1 Rebasing for percentages calculations

As described earlier, in many reporting situations it's a requirement to change the base size of a calculation for questions to show the values required. As an example, it could be in brand funnels where the base should include all respondents, instead of only the respondents that have answered each question. Previously this has required the creation of a Compute. With this release we have implemented "Rebasing" within the object/table itself. Options to choose from are "From shown question", "Total in project and filter combination" and "From other question". By default, all objects have "Selected question" selected, and this option is the same calculation as the previous calculation.

The option to rebase is available in StoryTeller, StoryCreator and CrossTable tool.

NOTE!

Index questions cannot be used with rebasing, neither as "shown question" or as "Other question". If an index is selected, all rebase options are greyed out.

3.1.1 Calculation logic

3.1.1.1 From shown question

This option is the current logic and will use the number of respondents that have answered on the selected question as denominator in the % calculation.

3.1.1.2 Total in project and filter combination / Total in filter combination within loop

This option will look at the total number of respondents activated in the project and together with additional filters create the number of respondents that will be used as denominator in the % calculation. If a looped question is used, all responses within the loop will be used as "total".

3.1.1.3 From other question

This option will look at another questions number of respondents and together with additional filters create the number of respondents that will be used as denominator in the % calculation.

3.1.1.4 Restrictions for Looped data

When looped data is used, there are some restrictions regarding the new feature.

If a looped question is selected as the main question, and;

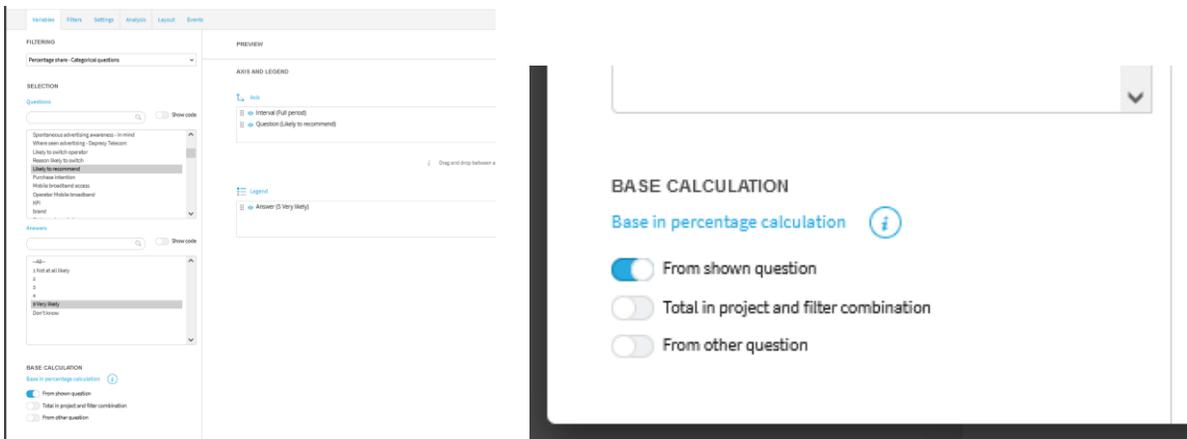
1. Base in looped calculation is using "Looped responses", only "From shown question" and "Total in filter combination within the loop" is available.
2. Base in looped calculation is using "Respondents", all rebasing options are available, but only questions from the main data files can be used as base option.

3.1.2 How to enable it?

3.1.2.1 StoryTeller

The option to rebase an % calculation can be used within charts and tables. In both object types the new setting can be found on the Variable tab, underneath the answer selection under the header "Base Calculation".

Here we see the new options in a StoryTeller object.

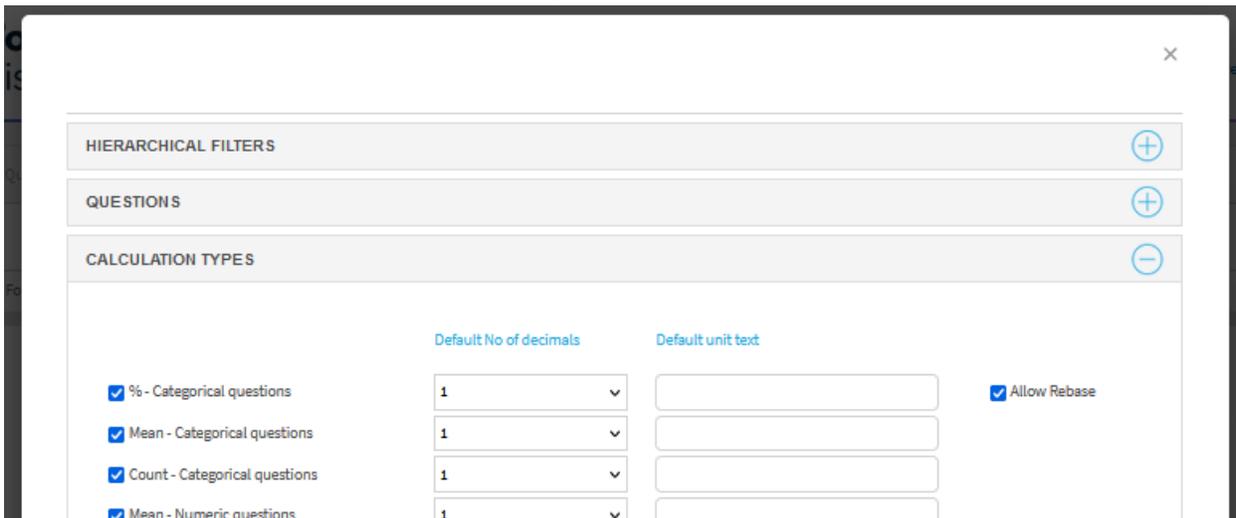




3.1.2.2 StoryCreator

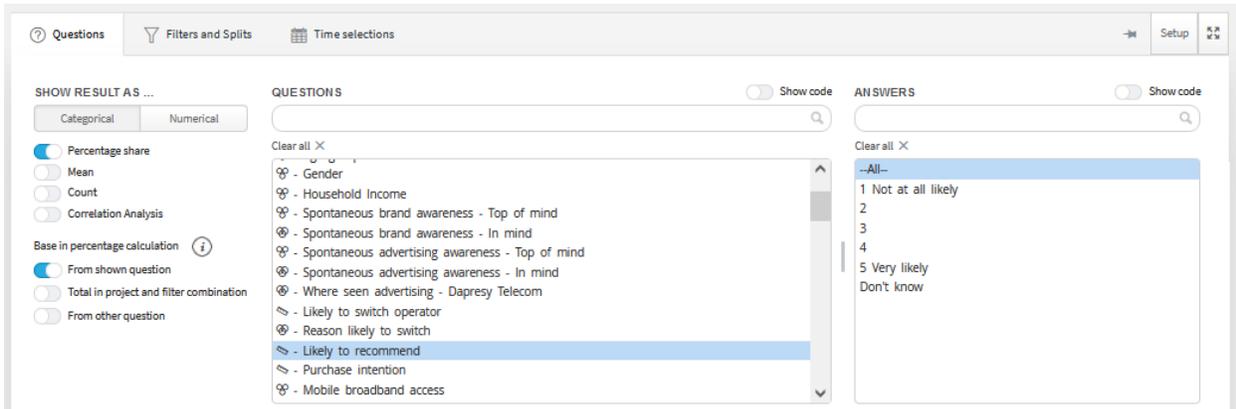
To be able to use rebasing the setting needs to be enabled in the report. To allow rebasing in the report, enable it under Setup and Calculation Types, on the row for “% - Categorical questions”. This option is by default enabled in new reports.

Here we see how to enable it under Setup.



The option to rebase an % calculation can be used within charts and tables. In both object types the new setting can be found on the Question tab, underneath the option to select what type of calculation to do, under the header “Base in percentage calculation”.

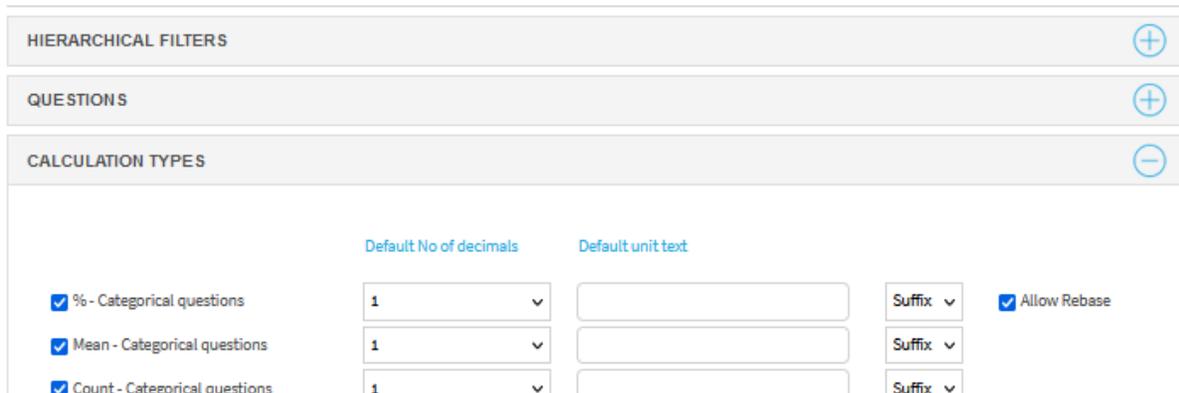
Here we see the new options within StoryCreator.



3.1.2.3 CrossTable tool

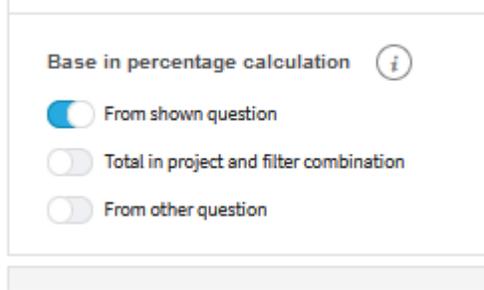
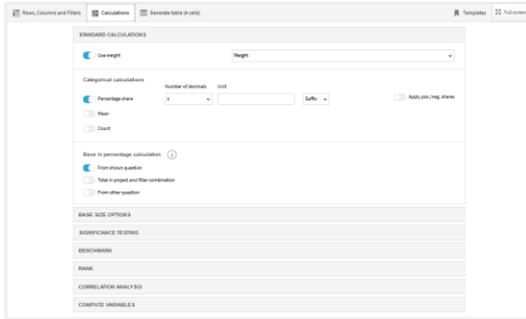
To be able to use rebasing the setting needs to be enabled in the report. To allow rebasing in the report, enable it under Settings and Calculation Types, on the row for “% - Categorical questions”. This option is by default enabled in new reports.

Here we see how to enable it under Setting.



The option to rebase an % calculation can be found on the Calculation tab, underneath the answer selection under the header “Base in percentage calculation”.

Here we see the new options within CrossTable tool.





3.2 Analytics – Dependent Paired Z and T test

In this release Paired Z and T tests have been added to our CrossTable Tool. In upcoming releases this will also be added to our StoryTeller and StoryCreator. This test is most used when comparing the same set of respondents over time or assorted products. The test will only include the respondents that exists in both samples. If a respondent only exists in one sample, it will be removed from the test completely, but still be shown in the main object.

All other options and functionalities that can be used for the “Two independent samples” test can be applied.

3.2.1 Calculation logic Dependent T-test

Both the mean and percentages T-test will be compared against the same critical value from the t-table as the “Two independent samples T-Test” that.

3.2.1.1 Categorical mean calculation

$$t = \frac{\bar{d}}{\frac{s_d}{\sqrt{n}}}$$

$$s_d = \sqrt{\frac{\sum_{i=1}^n (d_i - \bar{d})^2}{n - 1}}$$

$$\bar{x}_1 - \bar{x}_2 = \bar{d} = \frac{\sum_{i=1}^n d_i}{n}$$

Where d is the difference between the same respondent in the two samples and \bar{d} is the mean of all differences, and the degrees of freedom is $n-1$

3.2.1.2 Percentage calculation

$$t = \frac{(p_1 - p_2) - 0}{\sqrt{\hat{p}(1 - \hat{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where \hat{p} is calculated like this:

$$\hat{p} = \frac{(p_1 * n_1 + p_2 * n_2)}{n_1 + n_2}$$

And the degrees of freedom is n-1

3.2.2 Calculation logic Dependent Z-test

Both the mean and percentages Z-test will be compared against the same critical value as the "Two independent samples Z-Test" already does.

Significant level 10%= 1,644853627

Significant level 5%= 1,959963985

Significant level 1%= 2,575829304

3.2.2.1 Categorical mean calculation

$$z = \frac{\bar{d}}{\frac{s_d}{\sqrt{n}}}$$

$$s_d = \sqrt{\frac{\sum_{i=1}^n (d_i - \bar{d})^2}{n - 1}}$$

$$\bar{x}_1 - \bar{x}_2 = \bar{d} = \frac{\sum_{i=1}^n d_i}{n}$$

Where d is the difference between the same respondent in the two samples and \bar{d} is the mean of all differences.

3.2.2.2 Percentage calculation

$$z = \frac{(p_1 - p_2) - 0}{\sqrt{\hat{p}(1 - \hat{p})\left(\frac{1}{n_1} + \frac{1}{n_2}\right)}}$$

Where \hat{p} is calculated like this:

$$\hat{p} = \frac{(p_1 * n_1 + p_2 * n_2)}{n_1 + n_2}$$

4 StoryTeller

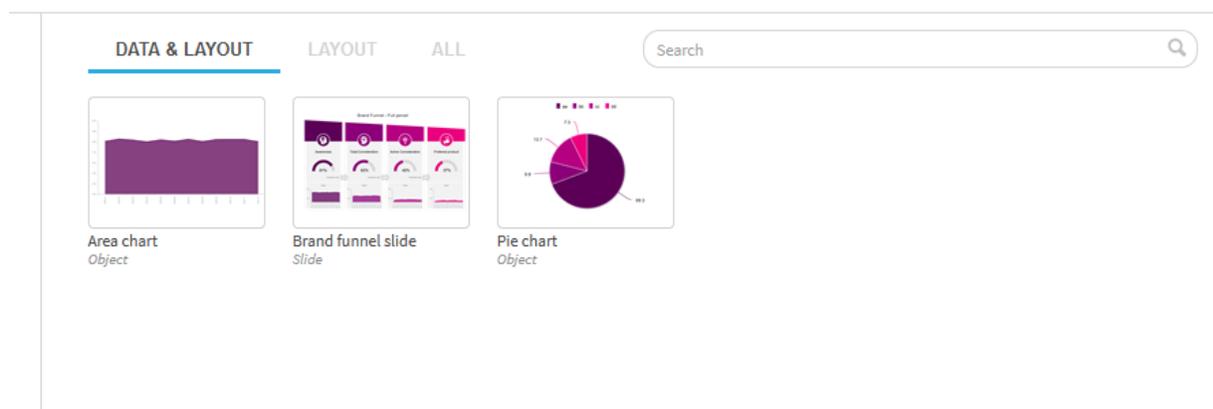
4.2 Improved StoryTeller Template Library

In the latest update of Forsta Visualizations the StoryTeller Templates have been improved to also store original question codes and answer ID's. This means that if the saved question and answer codes exist in the project it is being added to, the objects will be populated with data directly.

When you save a new template within any StoryTeller report, the codes and ID's will be saved automatically.

Within the Template Library the different templates, under the "Layout" tab, which are the previously created ones, and "Data & Layout" tab, which are the new templates that include the metadata information, will be separated, to clearly show if the template includes saved data or not. This means that all previously saved templates will be shown on the tab "Layout" and "All", while the templates saved after this update will be shown on the tab "Data & Layout" and "All".

Here we see the new layout of Template Library.





Within the saved template, information on what has been saved will be displayed. Depending on if the template is one single object with one series, or a full report with multiple objects, the information will be shown differently.

In a single series object, the calculation type, Question code and Answer ID('s) and Filters saved will be displayed both in the template library and within the wizard, if edited.

When a single series/object template has been saved.

NEW OBJECT TEMPLATE

Template Name *	Tags
<input type="text" value="Area Chart"/>	<input type="text" value="Area B2 S1"/>
Description	Good for
<input type="text" value="Used to display B2 over time with filter S1"/>	<input type="text" value="Funnel page"/>

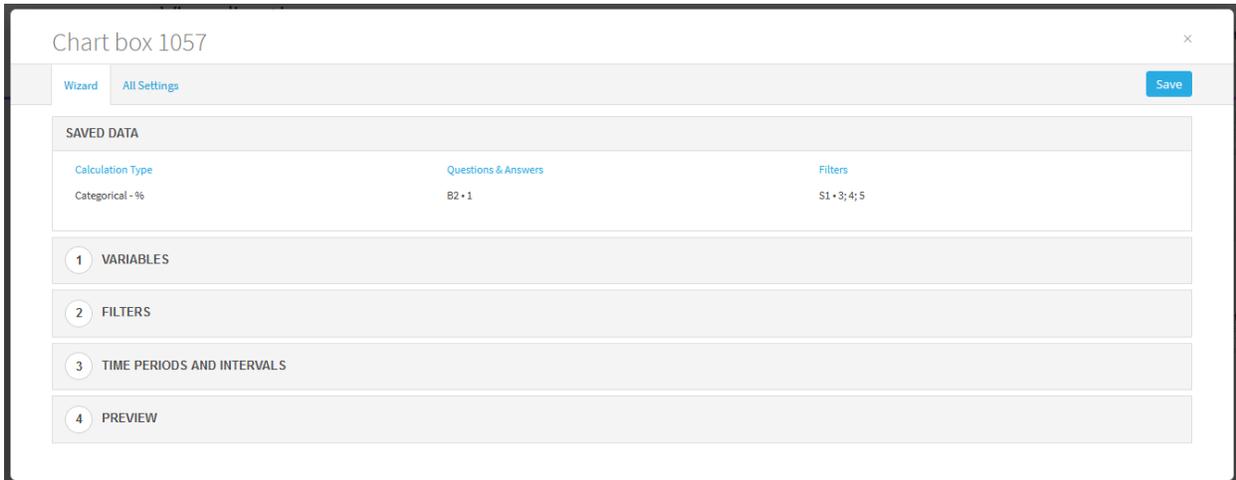
Insert the object(s) in source position by default

SAVED DATA

Calculation Type	Questions & Answers	Filters
Categorical - %	B2 • 1	S1 • 3; 4; 5

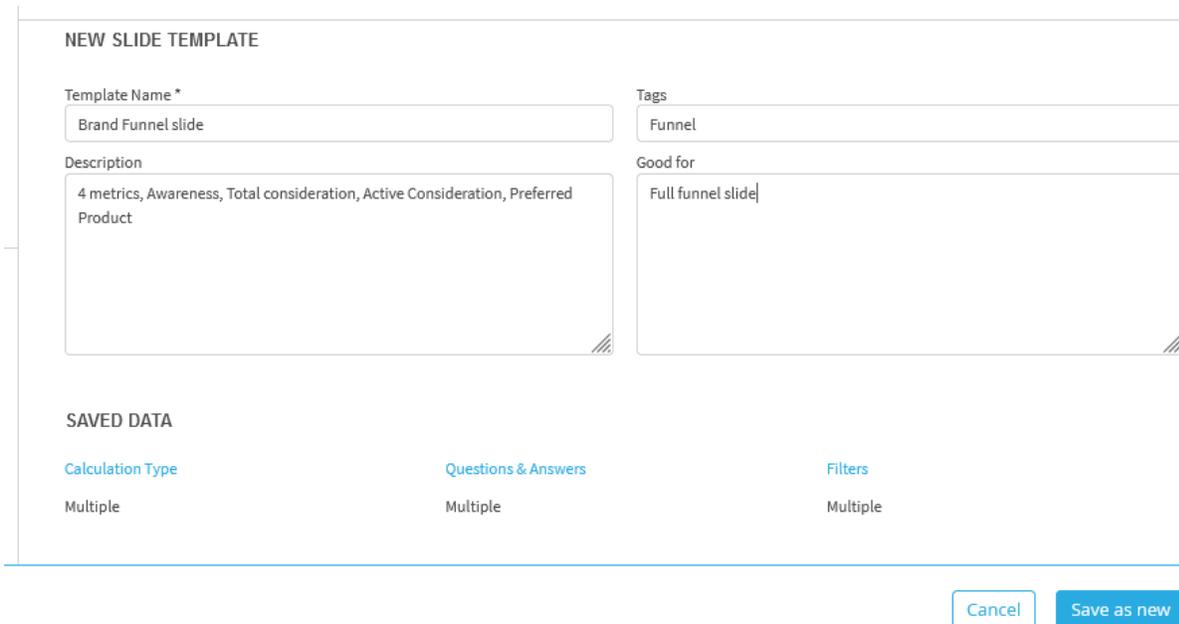


The same object once it is imported to a StoryTeller and the new section in the Wizard.



In multi series/object templates this information will be shown within the wizard, if edited. In the template library, it will state "Multiple" on all three items.

Here we see the information when there are multiple series or objects saved in a Template.





4.3 Improved filter information in Excel export

When a StoryTeller report is exported to Excel, there is a “Filters” sheet showing what optional filters was selected when the export was done. This page has now been updated to also include Hierarchical filter, Variable Subset and Time Period.

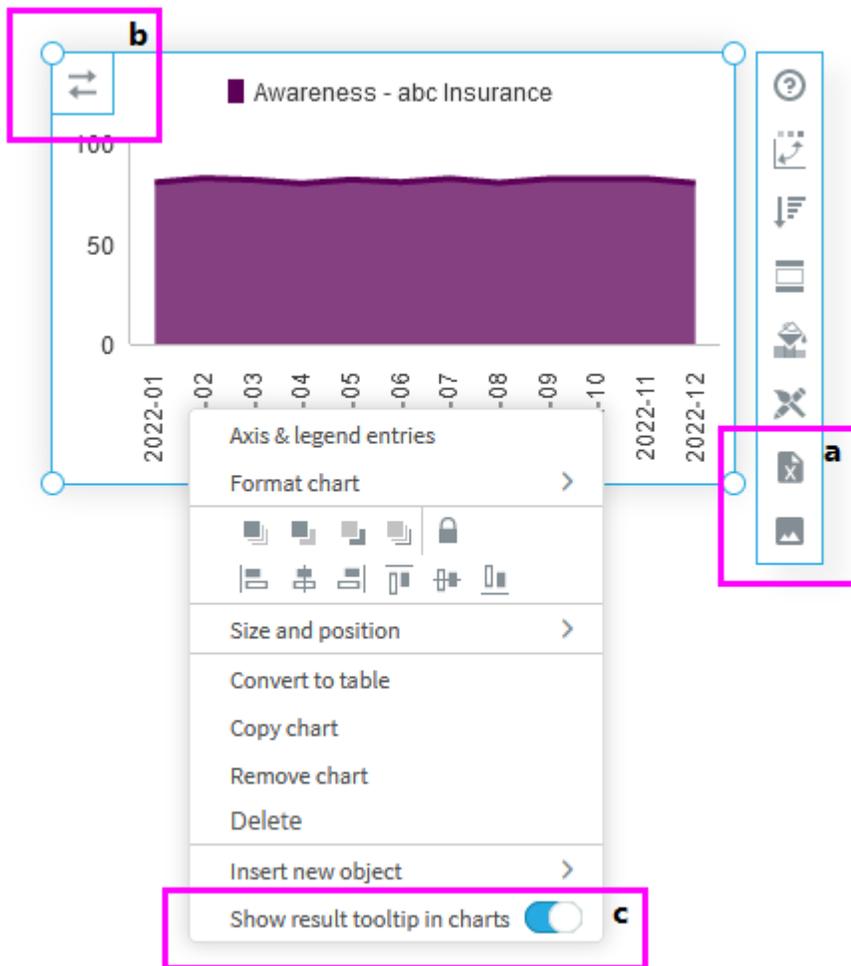
In addition to the regular excel exports of a StoryTeller the same information has been added to our Respondent Table excel export.

5 StoryCreator

5.1 Export, Swap and “turn off” tooltips button updates

To improve the workflow within StoryCreator, some buttons and features have been moved. The direct export per object (png and excel) has been moved into the toolbar on the right side (marked with a), Swap button has had a facelift (marked with b) and the option to turn off tooltips has been placed in the right click menu (marked with c).

The new and updated buttons.

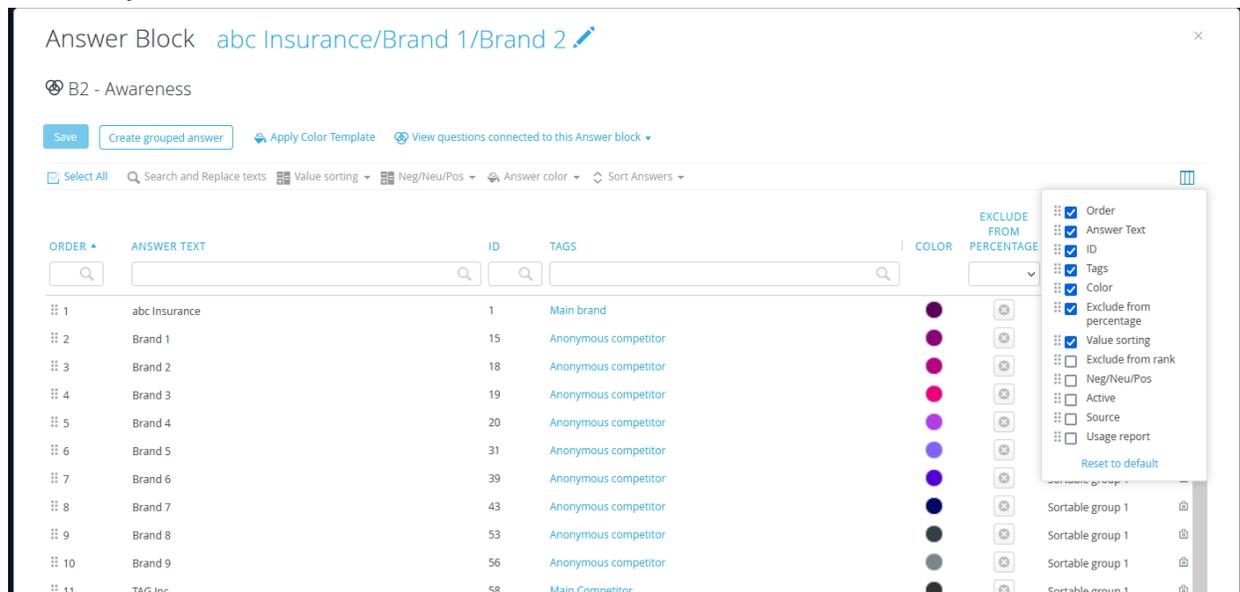


6 Data management

6.1 Tag support on answers

Just as questions can be tagged with the purpose of improving question administration, answers can now also be tagged. The tags are, in the initial version, used to search for answers more efficiently in the Answer block page but later the tags will be supported in more administration pages and in report setup for better support for automated processes. The answer tags are manually added in the system or through the "Download/Upload meta data" function.

The new Tag column in the Answer block page to the right of the ID column (the column is hidden by default).



To add a tag, enter the input field in the Tag column and type the tag name, suggested tags appear based on already added tags in the same project, click enter when the tag name is complete. Now you can add more tags to the same answers or delete the tag by clicking the existing tag label.

How to add additional tags or delete tags.



ORDER	ANSWER TEXT	ID	TAGS	COLOR	EXCLUDE FROM PERCENTAGE	VALUE SO
1	abc Insurance	1	Main brand	●	<input checked="" type="checkbox"/>	Sortable g
2	Brand 1	15	New tag...	●	<input type="checkbox"/>	Sortable gr
3	Brand 2	18	Anonymous competitor	●	<input type="checkbox"/>	Sortable gr
4	Brand 3	19	Main Competitor	●	<input type="checkbox"/>	Sortable gr
			Main brand	●	<input type="checkbox"/>	

You can bulk update tags via the Meta data download/upload process. A “Tag” column is included in the downloaded Excel file when variable settings are included.

Bulk edits of tags via Excel download/upload process.

Download/Upload Meta data

Select languages

English

Select content

Questions and Answers

Include variable settings

No Yes

Date variables

Filters

Reports

Optional Filters

Hierarchical Filters

Text boxes

Storyteller objects

Storyteller slide names

No file selected

AnswerID	AnswerBlockName	Pos / Neg / Neu	Exclude from avg	Factor avg	Colour Code	Color Placeholder	AnswerTags
05 709	abc Insurance/Brand 1/Brand 2	Neutral	No	1.0000000000	#5C0057		Main brand abc Insurance
06 710	abc Insurance/Brand 1/Brand 2	Neutral	No	15.0000000000	#B80078		Anonymous competitor Brand 1
07 711	abc Insurance/Brand 1/Brand 2	Neutral	No	18.0000000000	#B60082		Anonymous competitor Brand 2
08 712	abc Insurance/Brand 1/Brand 2	Neutral	No	19.0000000000	#EA007E		Anonymous competitor Brand 3
09 713	abc Insurance/Brand 1/Brand 2	Neutral	No	20.0000000000	#B43CE7		Anonymous competitor Brand 4
10 714	abc Insurance/Brand 1/Brand 2	Neutral	No	31.0000000000	#B35FFF		Anonymous competitor Brand 5
11 715	abc Insurance/Brand 1/Brand 2	Neutral	No	39.0000000000	#5200D6		Anonymous competitor Brand 6
12 716	abc Insurance/Brand 1/Brand 2	Neutral	No	43.0000000000	#010865		Anonymous competitor Brand 7
13 717	abc Insurance/Brand 1/Brand 2	Neutral	No	53.0000000000	#323E48		Anonymous competitor Brand 8
14 718	abc Insurance/Brand 1/Brand 2	Neutral	No	56.0000000000	#7B866C		Anonymous competitor Brand 9
15 719	abc Insurance/Brand 1/Brand 2	Neutral	No	58.0000000000	#333232		Main Competitor TAG Inc.
16 720	abc Insurance/Brand 1/Brand 2	Neutral	No	65.0000000000	#F27F2		Anonymous competitor Brand 10
17 721	abc Insurance/Brand 1/Brand 2	Neutral	No	70.0000000000	#5C0057		Anonymous competitor Brand 11
18 722	abc Insurance/Brand 1/Brand 2	Neutral	No	73.0000000000	#B80078		Anonymous competitor Brand 12

6.2 Improvements Tag on Questions

Some smaller adjustments have been implemented on Question Tags. Tags can now be added on multiple questions at the same time, allowed separators for Tags in “Download/Upload meta data” are “,” (comma) and “;” (semi-colon).