Must-Know Tricks for Interactive Excel Dashboards in 2023

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In today's fast-changing business environment, having **the right data available** is **crucial for staying agile**. For reasons of power and flexibility, many reports and dashboards are still made in Excel. They often come in the form of fancy charts and pretty colors which ultimately lack actionable insights. No more! Read on to learn how to create **interactive Excel dashboards** that will help you **stay ahead** of the competition in 2023.

Now, remember, this guide is all about **practical tips & tricks** you can implement immediately. We're going to start from scratch and then add some cool features, including rich visualizations, slicers and more. The aim here is to create something really powerful and interactive super quickly.

We'll also have a look at how to download and start working with **Zebra BI for Office**[1], a free add-in for Excel and PowerPoint. This powerful piece of software can help you build *insane* interactive Excel dashboards as well as ad hoc analyses, prototypes, reports, business presentations, and so much more!

Ready to get started? Let's get right to it.

Here's the dashboard we're building

Have a look at what we're about to build.
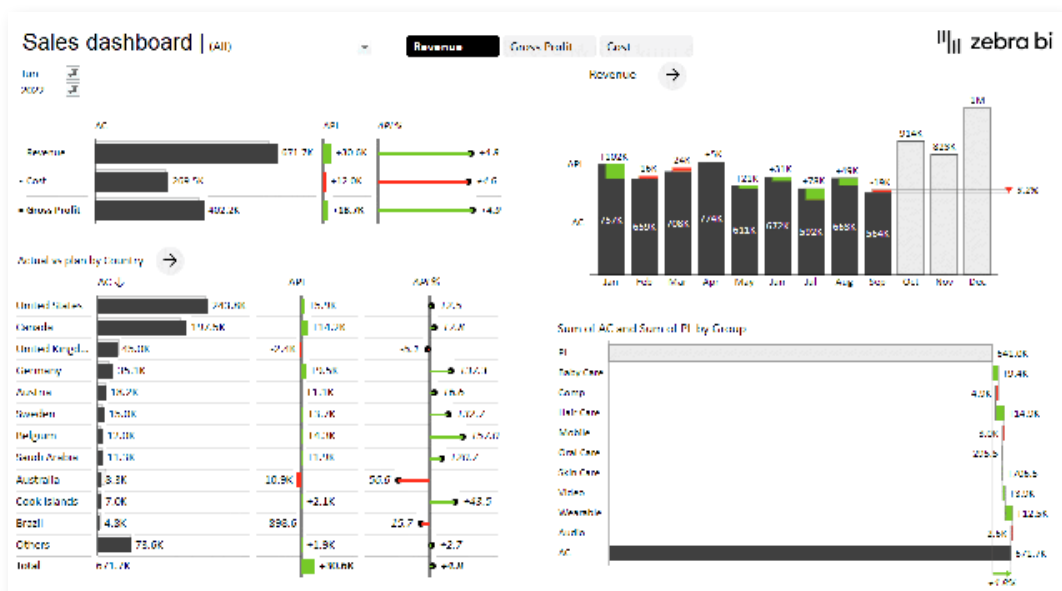
This **sales dashboard** tracks a couple of typical sales **KPIs**, such as **revenue, gross profit** and **costs**. It is fully **interactive**, which means that data can be easily **changed or adjusted**. For example, you can switch between years, months and KPIs and then move on to other pages in the dashboard to view the data in more detail, with the same filter applied.
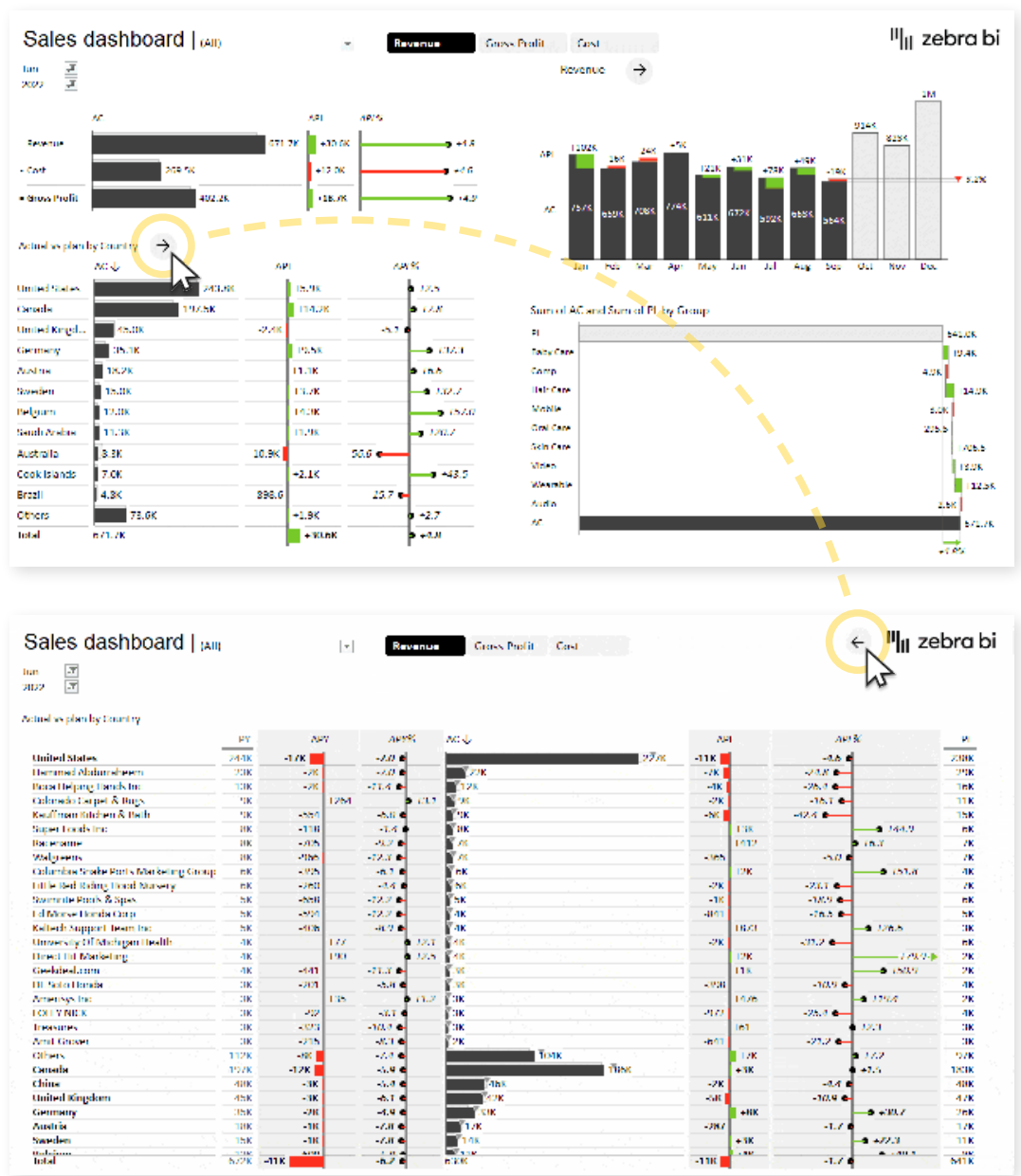

This provides you with all the tools you need to **drill down** into your data for **detailed insights** into your business. This interactive approach really opens up your data storytelling options, allowing you to tell a compelling story that highlights the most important data and empowers business decision makers.

Core dashboard design concepts

There are several best practices you should follow when working in Excel. We recommend starting with the first page which is typically referred to as the **landing page**. This is the first page your users will see and, of course, a typical user would want to see their **main KPIs** at a glance here.

Your landing page is a **starting point**. In addition to displaying your key metrics, it also serves as a gateway to the rest of your data. To be truly interactive, it should allow users **to navigate to other pages in the report**. In our sample dashboard, we're looking at three key KPIs: **revenue, costs, and gross profit**. It's important to note that any dashboard should not only include the values but also put them in **context** and present them as compared to the plan, previous year, or forecast, for instance.
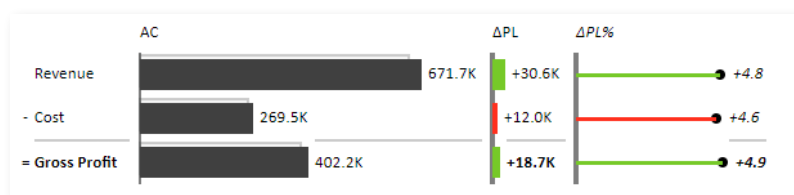
The next step is to include a time series that highlights business trends followed by a breakdown of your data by countries. This provides **actionable insight**, allowing you to take action fast. You can have a closer look at certain countries and drill down into detail to get a clear picture of what's going on.
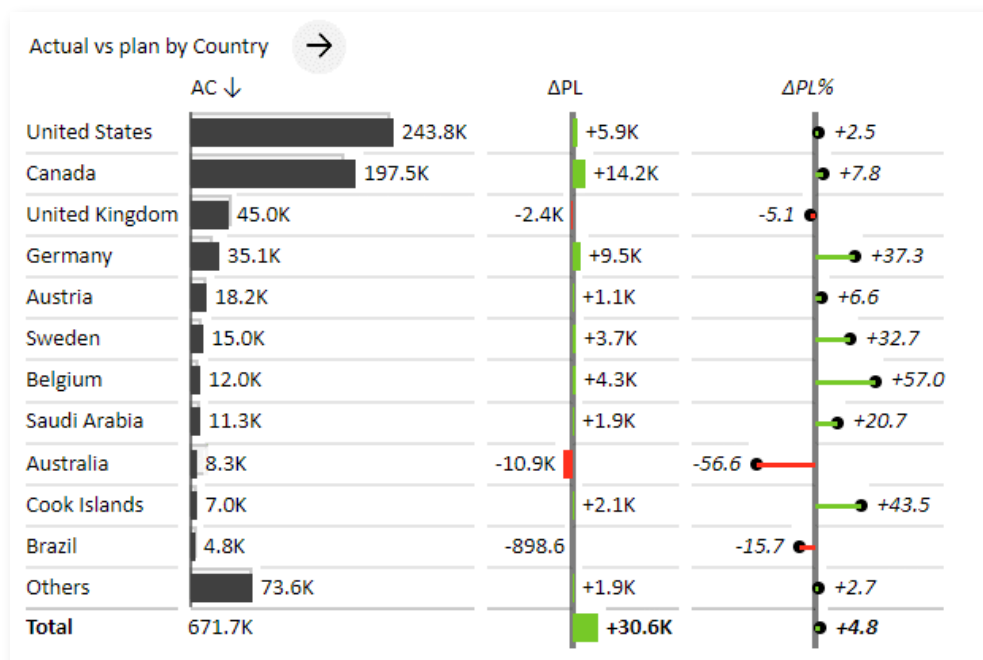
For example, a quick glance is all it takes to see that United Kingdom, Australia and Brazil are struggling and something needs to be done to rectify the situation. To **provide more detail**, you can **link this page to a separate report** in your Excel spreadsheet which shows the performance of individual stores in every country.

How to build interactive Excel dashboards

To create this dashboard, we'll rely primarily on **PivotTables**, and then spice them up with some slicers, hyperlinks (for navigation purposes), and other powerful elements.

While there are many different techniques you could use to build interactive Excel dashboards, PivotTables are probably **the most effective and convenient way** of doing it. If you can get your data into PivotTables, it means that you have cleaned it up at least a little bit and have a good data structure that will allow you to be agile in your approach to visualizations.

First, let's prepare the page by inserting a rectangle shape in the 16:9 ratio. To get it right, you can look up the actual sizes (cca 19 x 33 centimeters) in PowerPoint under the **Custom Slide Size** option in the **Design** tab on your ribbon. The widescreen size will be the most useful one for the broadest range of displays.

Next, open the **Source data** sheet in your sample workbook. It contains the sales data you will be working with to create the dashboard.

Click the **PivotTable** button on the **Insert** tab on your ribbon.
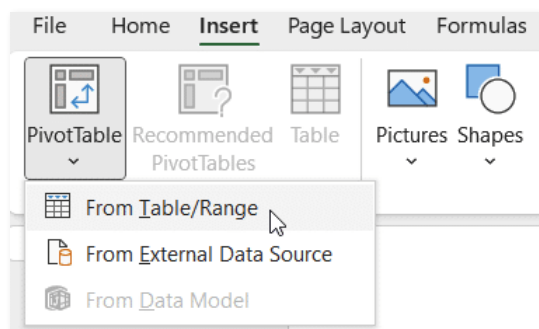
Insert the PivotTable into your home page.
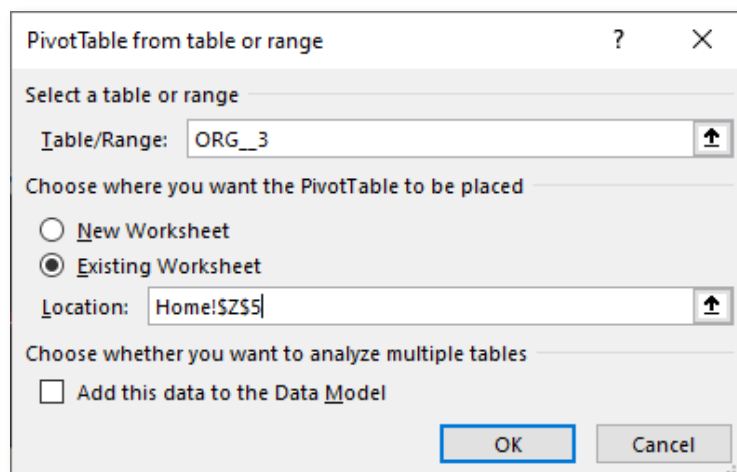
Now, click on the newly inserted PivotTable and add some fields. The first one to add is the dimension **Account** – place it into the **Rows** area. Next up are your actual (AC) and plan values (PL) which you should add to the **Values** area.


Now that you have your PivotTable fields in place, it's time to visualize your data. 👇

Make sure you install both Zebra BI Tables for Office and Zebra BI Charts for Office. Once downloaded, the add-ins become available in the **Insert** tab on your tool ribbon. Click the **My Add-ins** button and select the desired add-in from the available options.

In our case, you should click on the ***Zebra BI Tables for Office*** option.

This will insert a simple table, visualizing your three core KPIs – revenue, gross profit and cost. **Make sure all the values are in the right placeholders**. If you're comparing your actuals to plan, your Sum of PL value should be in the Plan placeholder, not the Previous Year one. Click on the gear icon and simply move it accordingly.
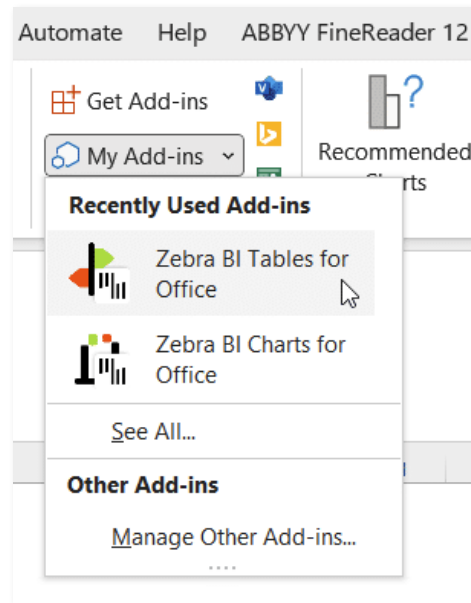
Note: You can change any label to rename your columns and other elements; however, Zebra BI uses the notations recommended by **IBCS**[2]. This is why you always see these two-letter abbreviations. Rename the labels by clicking on the dropdown menu next to the label name and then clicking on the name.
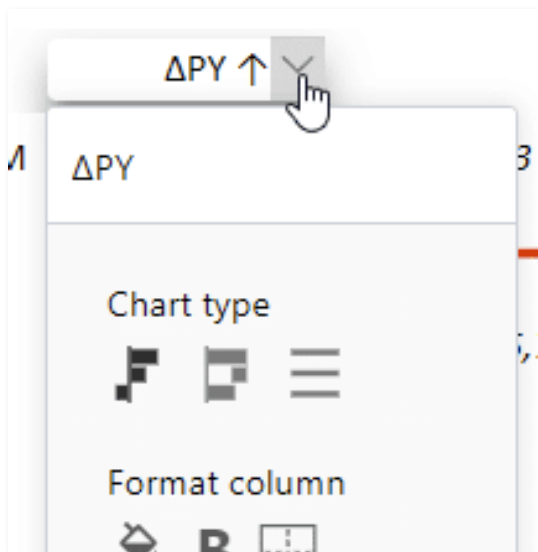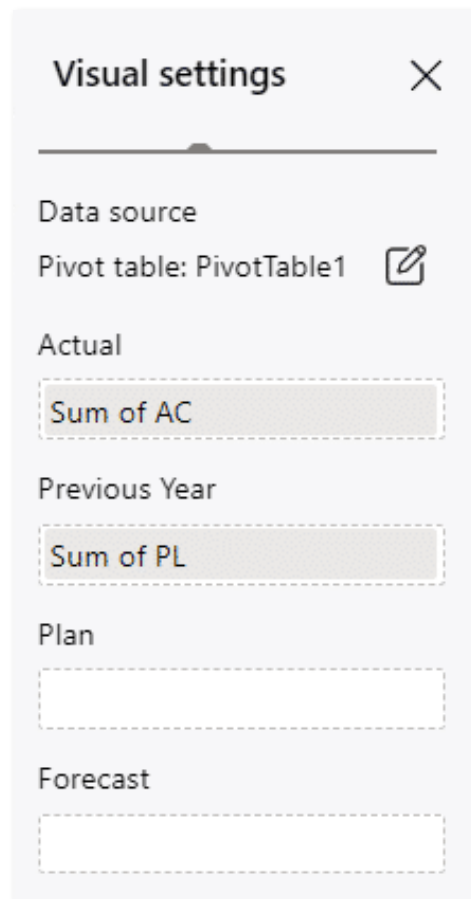
Designing and customizing interactive Excel dashboards

Once you have your bare-bones dashboard set up, you can start designing the layout. Your most important KPIs should be in the upper left section. As you're moving it, press the **ALT** key on your keyboard. In Excel, this will **align the object to the underlying grid**, making sure everything is lined up and matching.

Another great tip you can use to this end is to custom-sort the elements in your PivotTables. You could right-click on the arrow next to the column name – or – right-click **on the right border of the field** and drag it up or down to manually sort the table.

1.)

2.)

3.)

4.)

Adding filtering by year and month

To build interactive Excel dashboards which are user-friendly, you should have **separate columns for months and years**. You can see this approach in practice in the source data for the sample dashboard.

Here, the year and month columns are extracted from the date.

Our goal with this interactive Excel dashboard is to place the month and year filters on the top left, which will allow us to easily change the values and manipulate data.

	Date	Year	Month
2	1/1/2019	2019	Jan
3	1/1/2019	2019	Jan
4	1/1/2019	2019	Jan
5	1/1/2019	2019	Jan
6	1/1/2019	2019	Jan
7	1/1/2019	2019	Jan
8	1/1/2019	2019	Jan
9	1/1/2019	2019	Jan
10	1/1/2019	2019	Jan
11	1/1/2019	2019	Jan

The first step is to add **_Year_** and **_Month_** Fields as filters to our PivotTable. Click on them and drag them to the Filters area of your PivotTable Fields pane.

	W	X	Y	Z
	Year	(All)		
	Month	(All)		
	Row Labels	Sum of AC	Sum of PL	
	Cost	12823265,71	13592180,52	
	Gross Profit	16308810,96	18230416,62	
	Revenue	30228098,45	32277642,09	
	Grand Total	59360175,12	64100239,24	

PivotTable Fields

Choose fields to add to report:

Search

- ☑ **Year**
- ☑ **Month**
- ☐ ProductCategory
- ☐ Customer
- ☐ Country
- ☐ Salesperson
- ☐ Business Unit
- ☐ Group
- ☐ Division
- ☑ **Account**
- ☑ **AC**
- ☐ FC
- ☑ **PL**

Drag fields between areas below:

▼ Filters

Year	∨
Month	∨

▥ Columns

∑ Values	∨

This puts two filter fields above your PivotTable, where you can select **individual years and months** for filtering the data. However, our goal is to have these selectors above our visual.

Select the PivotTable and copy it below your existing one. In this copy, all you need is the filter area, so you should remove everything else – all the rows and values. This leaves you with two fields in which you can select the year and the month. You can now copy these above your Tables visual.
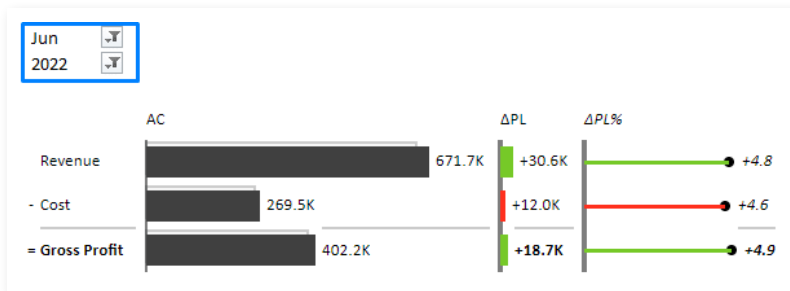

But you're not quite finished. Changing the values in this new filter doesn't do anything yet. You need a way to **synchronize the two PivotTables** first.

Useful tip: When you work in Excel, make sure you give all your objects, including PivotTables, legible and easily understandable names. This will allow you to work with them even weeks or months later when you come back to your dashboard. You can easily rename PivotTables in the PivotTable Analyze tab.

Having fun with slicers

We will synchronize the PivotTables by using a **slicer**. Click on one of the PivotTables, go to the *Insert* tab and click *Slicer*. This will open a window with all the data fields available for your PivotTable.
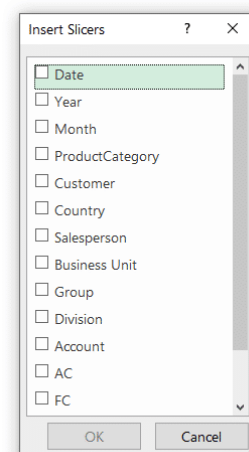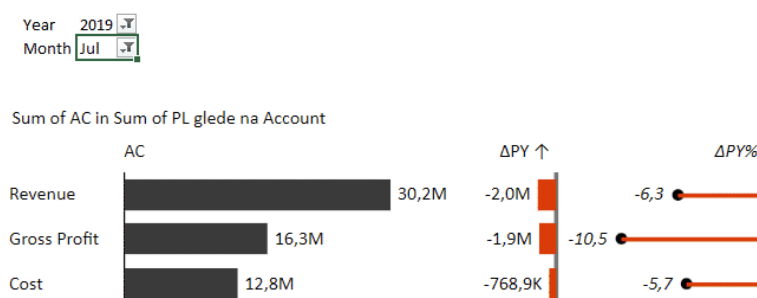
Select the **Year** and **Month** slicers. This will create two slicers on your dashboard. However, these two slicers are now only linked to one PivotTable and not both. So any selection of months or years made in the slicers are only affecting the original pivot table.

To synchronize them, right-click on a slicer and click **Report connections** entry from the menu.

This will open up a new selector window with a list of all the PivotTables in the whole workbook. Here, you simply **tick the PivotTables that you want the slicer to control.** You want your filter to change the date and the KPIs in your PivotTables.

Once you do this, **everything is synced.** So basically, you can just think about the slicer as the synchronizer of multiple PivotTables. And the nice thing is this works **across the whole report** and not just one worksheet.

Note: Don't forget to set report connections for both slicers.

Note: Your PivotTables may automatically change the width of the columns in which you've placed them. To prevent this, right-click on the PivotTable, select the **PivotTable options** entry from the menu, and then turn off the **Autofit column widths on update** option.
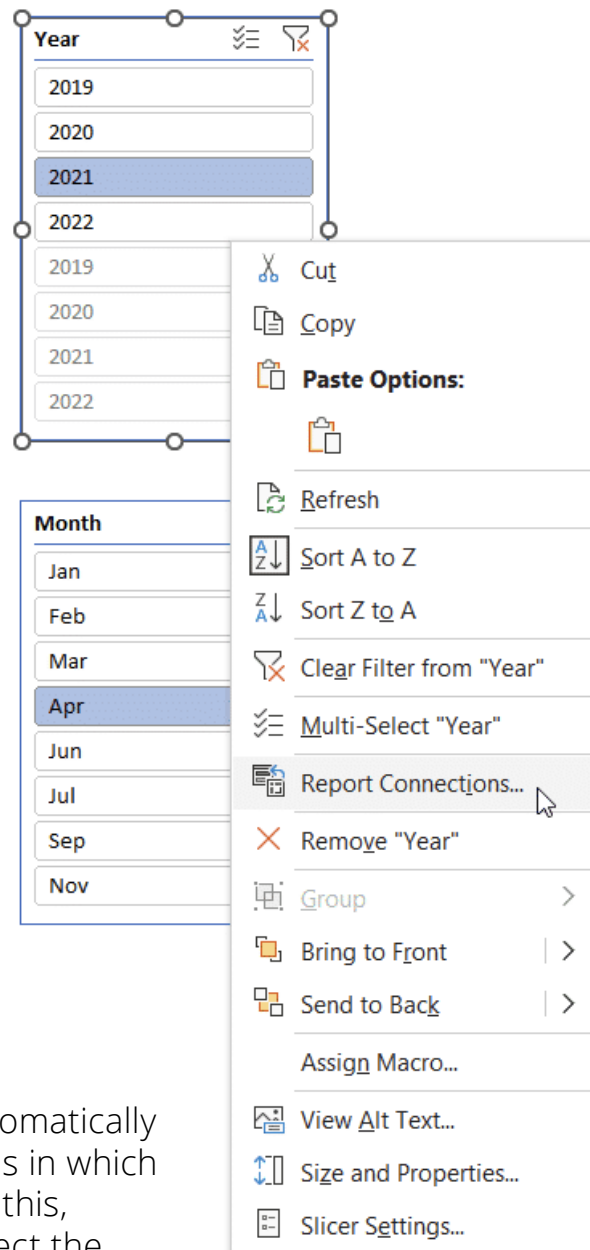
What's interesting is that you can then remove **Year** and **Month** measures from the **Filters** area of your PivotTable Fields pane, and the slicers will continue to work as planned.

Adding a time series

Let's continue by making a copy of your existing PivotTable. Remove other fields and add the **Month** field to the **Rows** area of the PivotTable.

Your next step is to **delink this new PivotTable from your slicers**. Since you've copied it, the table will be filtered by the slicers you've implemented in the previous step. To delink it, click on the **Month** slicer, select **Report connections** and remove the connection to your new PivotTable. In our case, it was called MonthlyPivot.
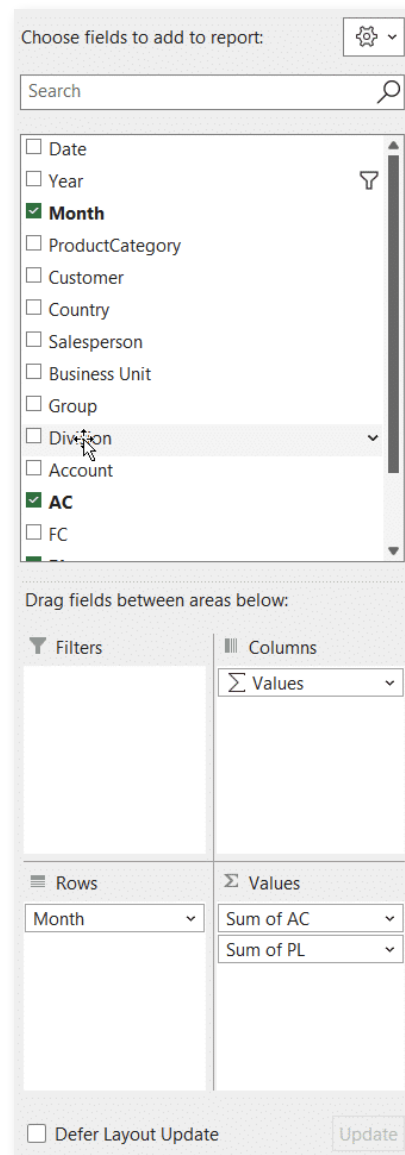
Now, insert the second Zebra BI visual: **Zebra BI Charts for Office.** With your current values, you get a chart showing your actuals up to the current month and plan values for the rest of the year. Just make sure to move the plan values into the right placeholders in the **chart settings** (gear wheel icon).
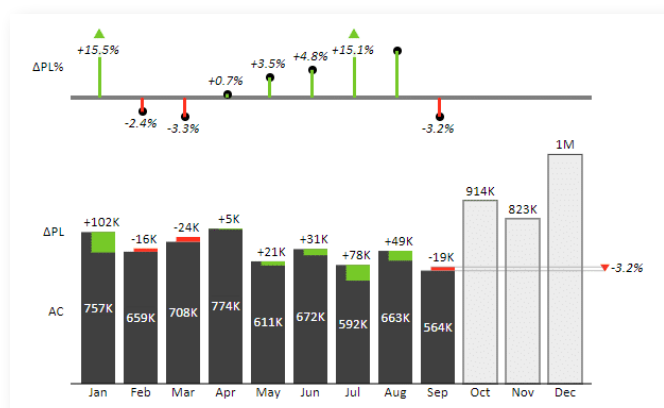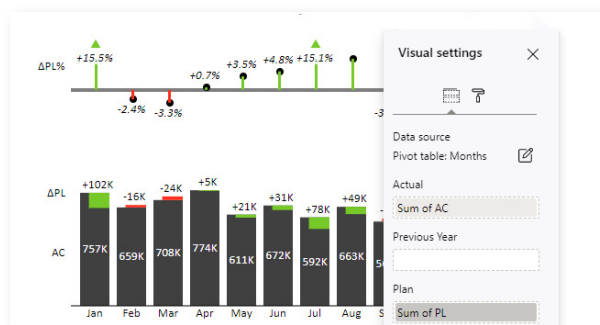

This is what your chart will look like now.

Zebra BI add-ins for Excel also support more complex scenarios with forecasts and other comparisons. Add forecast values into the Forecast placeholder in the chart settings to get a segmented chart.

Adding forecasts to your dashboards makes them **much more valuable**. Forecasts enable you to look at your data and see how you anticipate to finish the year. To make the visual even more insightful, you could also add the data for the previous year. Click on the PivotTable and add Previous Year data (PY).

Once you've done this, just drop individual values into their right placeholders in the chart settings.
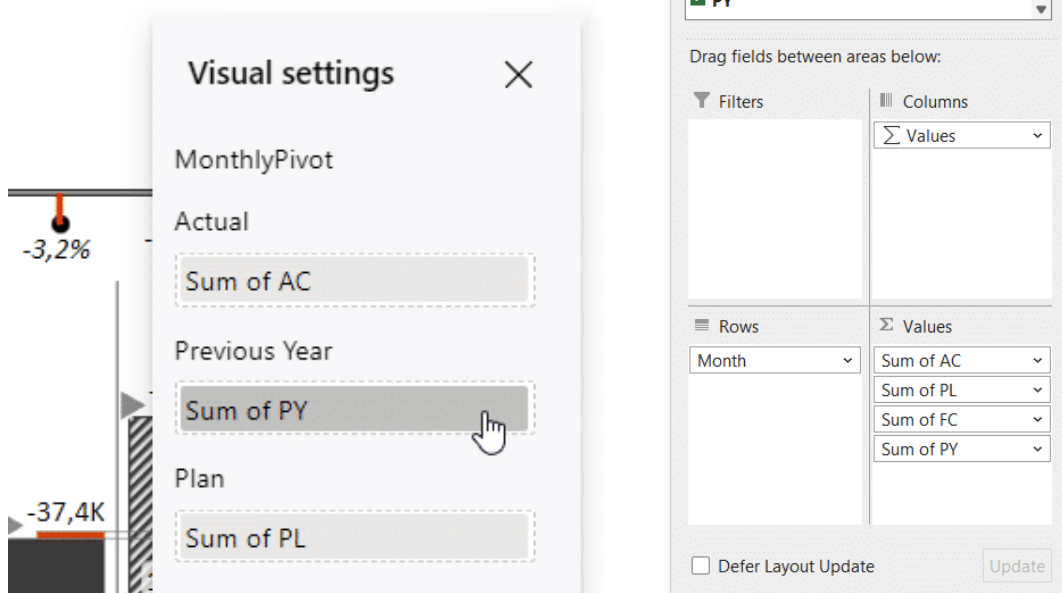
The end result is a **rich visualization** that clearly shows how well you've performed against your previous year and plan. A single chart gives you an overview of your performance so far and enables you to look to the future.
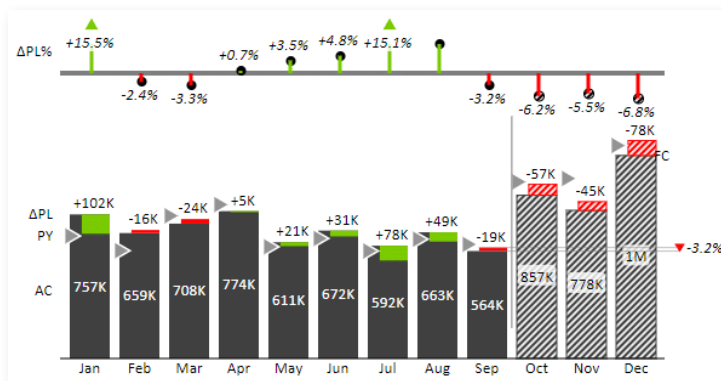
Breaking it down by countries

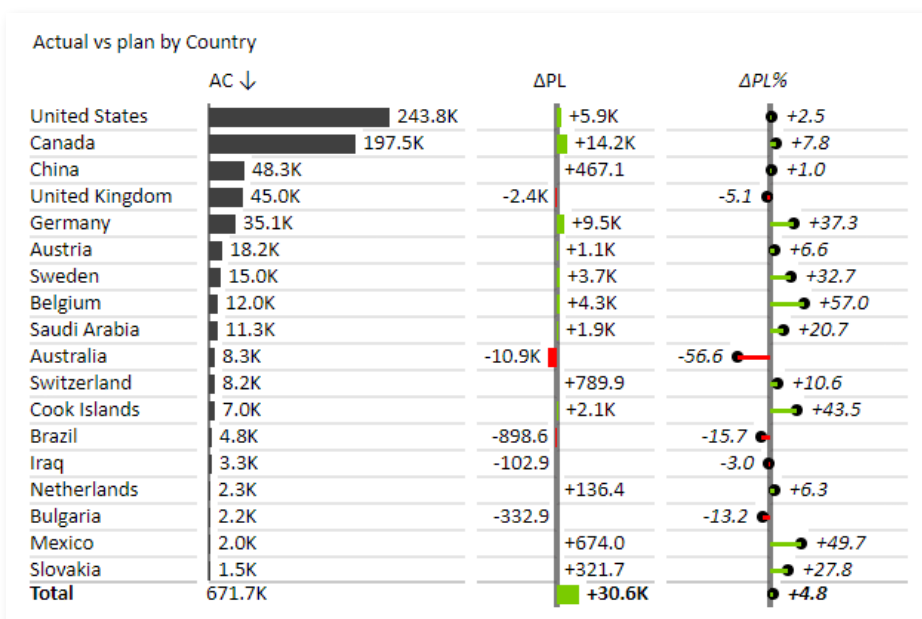The next step is to add a breakdown by countries. Start by copying your first PivotTable, removing the fields you no longer need and adding the ones you do. In our case, we'll just keep **AC** and **PL values** and place the **Country** value into the **Rows** area in the PivotTable.

Next, visualize the data by inserting a Zebra BI Table for Office. Isn't it amazing how powerful visualizations can really be? In just a couple of clicks, you can get from this:

Row Labels	Sum of AC	Sum of PL
Australia	16648,05401	38359,81219
Austria	36494,5712	34222,38622
Azerbaijan	5,8974346	12,72225093
Bahrain	305,5446357	172,0539906
Belarus	494,4026896	207,7497361
Belgium	23930,0693	15246,50498
Brazil	9641,643062	11438,93788
Bulgaria	4395,258385	5061,134289
Canada	394955,9277	366520,849
China	96628,99528	95694,7541
Cook Islands	14094,6055	9824,133057
Denmark	511,0444098	445,2998969
Fiji	195,7501653	264,1441107
Finland	2449,475583	3212,941535
France	121,6059775	204,874933
French Polynesia	101,4700848	55,70455206
Germany	70120,01092	51065,5252
Greece	330,9274537	493,7957519
Guam	34,16454412	19,98652186
Hungary	38,40316376	23,16370797
Iraq	6545,479271	6751,371675
Ireland	79,8	35,17354113
Israel	887,1458737	612,4281379
Italy	630,6316175	930,5245193
Jordan	69,8232964	55,76033093

... to this:

| Actual vs plan by Country	AC ↓	ΔPL	ΔPL%
United States	243.8K	+5.9K	+2.5
Canada	197.5K	+14.2K	+7.8
China	48.3K	+467.1	+1.0
United Kingdom	45.0K	-2.4K	-5.1
Germany	35.1K	+9.5K	+37.3
Austria	18.2K	+1.1K	+6.6
Sweden	15.0K	+3.7K	+32.7
Belgium	12.0K	+4.3K	+57.0
Saudi Arabia	11.3K	+1.9K	+20.7
Australia	8.3K	-10.9K	-56.6
Switzerland	8.2K	+789.9	+10.6
Cook Islands	7.0K	+2.1K	+43.5
Brazil	4.8K	-898.6	-15.7
Iraq	3.3K	-102.9	-3.0
Netherlands	2.3K	+136.4	+6.3
Bulgaria	2.2K	-332.9	-13.2
Mexico	2.0K	+674.0	+49.7
Slovakia	1.5K	+321.7	+27.8
Total	**671.7K**	**+30.6K**	**+4.8**

A plain table with a bunch of figures gives you no sense of which country is the largest market, which are the best performers and which, on the other hand, need some attention. By visualizing your data, you get a much better insight. What's more, this enables your users to **sort** and **resize** the table to get a better grip on your data.

But make sure **not to overwhelm your dashboard user** on the very first page. This table now displays all of the countries and makes you scroll through them, which can be cumbersome. The best approach to solving this is to show just the top 15 countries. This puts the most important data points at the top.

Right-click on any country name and select the *Top/Bottom N* option from the menu.
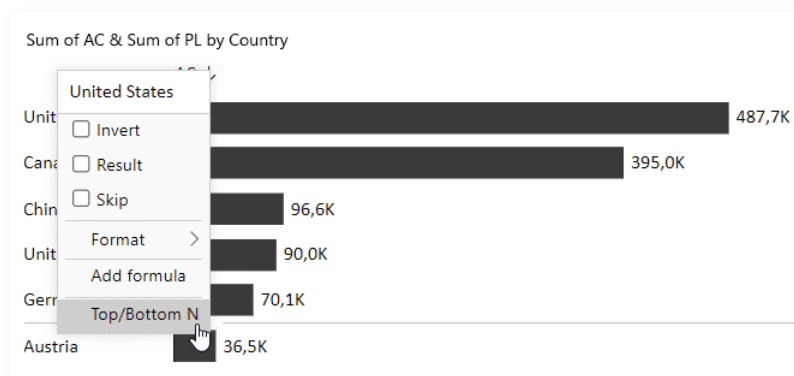
Then, set the options. Select *Top N* and set the number of items under **Edit mode** to 15. This will have your Tables visual show the top 15 countries only.

Drilling into more detail

Now that you've created a great overview of your countries, you want to give your users the option to **drill into more detail**. You can do this by **creating a new page** with more detail that users can navigate to from the landing page.

Create a new sheet and copy your PivotTable with Year and Month filters.

Drop in the values you want to see in your report. In our case, we'll be working with **countries, customers** and **actuals** and **plans**. On the right is what your PivotTable Fields pane should look like:

Once your PivotTable is ready, insert a Zebra BI Table.

If you get a parsing error, just click on your PivotTable, open the **Design** tab and set **Report layout** to **Show in tabular form**.
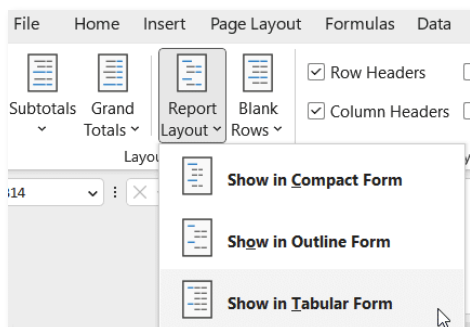
This table delivers a great amount of information and you can manipulate this data in various ways. You can **collapse individual countries** or have all the corresponding clients displayed. You can also limit the display of clients to just, say, 10 of your best or worst performers by using the **Top N** or **Bottom N** features and setting the number of Items under Edit mode to 10.
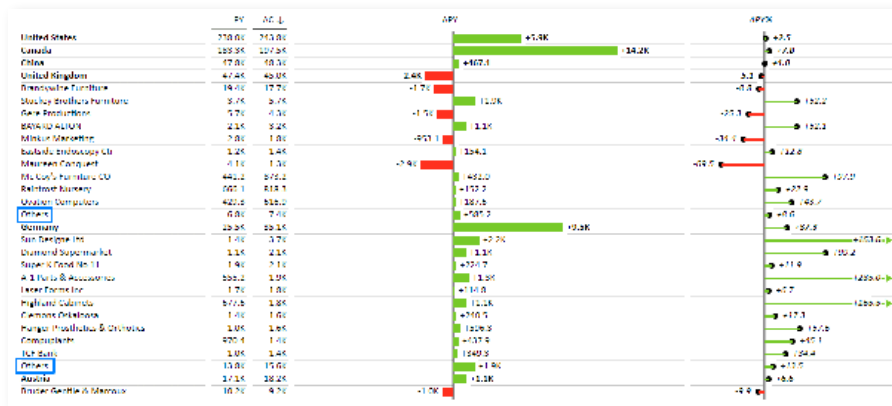
To increase information density, you can add the data for the previous year, and Zebra BI Tables will **automatically calculate the variances** between this data point and your actual results. This great feature completely eliminates the need for manual calculations, saving you tons of time and effort. You can find it in all Zebra BI visuals.

Tip: when it comes to designing a table like this, a sound approach is to put the Previous Year column to the left, actuals in the center and plan to the right. This gives you a logical overview of your data, moving from the past to the future.
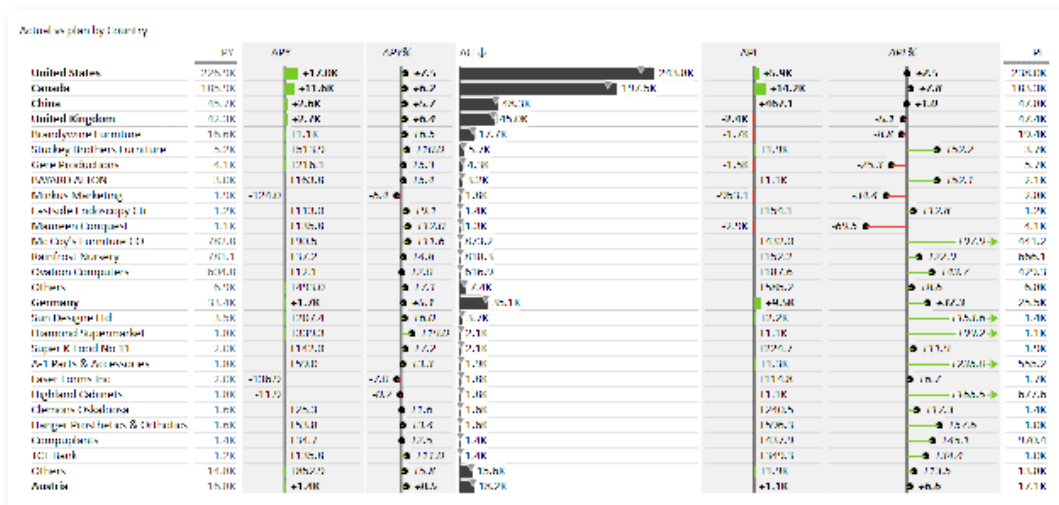
Creating a slicer for switching between KPIs

One of the things we're missing to make this dashboard truly interactive is a **slicer for switching between KPIs**. To do this, click on your Account PivotTable and select *Slicer* on the *Insert* tab in Excel. A window pops up, in which you should select the *Account* measure which actually contains the **Cost, Gross profit** and **Revenue** values.

This produces the slicer that you now have to connect to other PivotTables by using the *Report connections* tool. It needs to be connected to the PivotTables that contain monthly and country data.

What we really want, however, is to design this slicer as a **horizontal one**, like the one we saw in our sample dashboard. To do this, click on the slicer to have it show the *Slicer* tab on your toolbar. Here, you can adjust various slicer aspects. Start by setting the number of columns to 3.
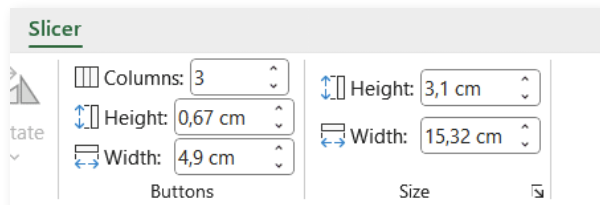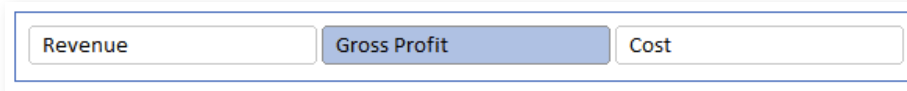
Continue by opening the slicer settings on your Slicer tab.

Go ahead and **remove the heading**, set the sorting order to descending and select *Hide items with no data*.

This is your end result.
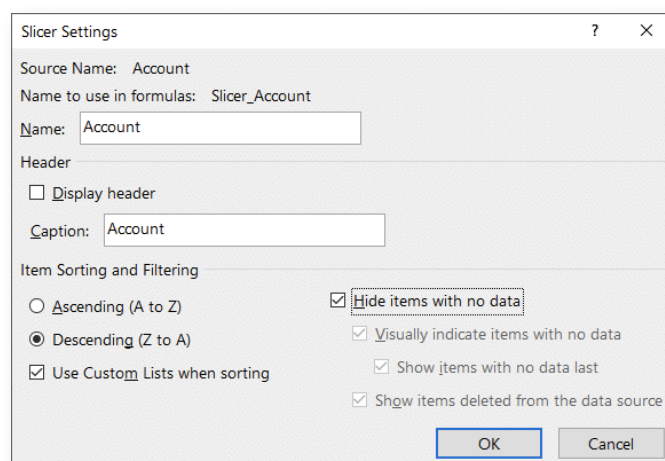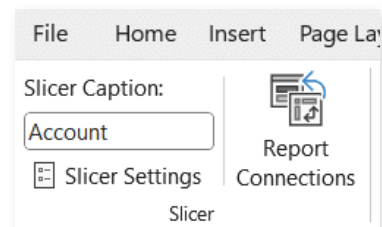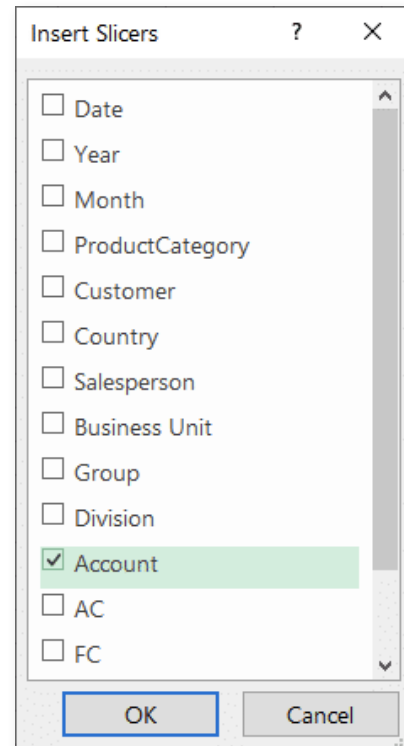
Revenue	Gross Profit	Cost

You can select from a number of **predefined Slicer styles** or **create your own**. To do this, you need to select a style, right-click it and then select Duplicate. Give the new style your name and start modifying it. Excel does not allow you to customize the default Slicer styles, but you can configure your own styles in any way you want.

# Adding a vertical waterfall chart for business units

The last chart we create will display all the business units. First, copy your existing PivotTable.

| Row Labels	Sum of AC	Sum of PL	Sum of FC
Cost	241354,3529	231143,2111	249393,9517
Gross Profit	369224,9175	358878,291	383412,6536
Revenue	610579,2704	590021,5021	604953,3961
Grand Total	1221158,541	1180043,004	1237760,001

Remove the **Accounts** measure and add the **Group** measure which contains all the business unit groups. We will use this data to create a waterfall chart, which you can do by inserting a **Zebra BI Charts for Office** visual.
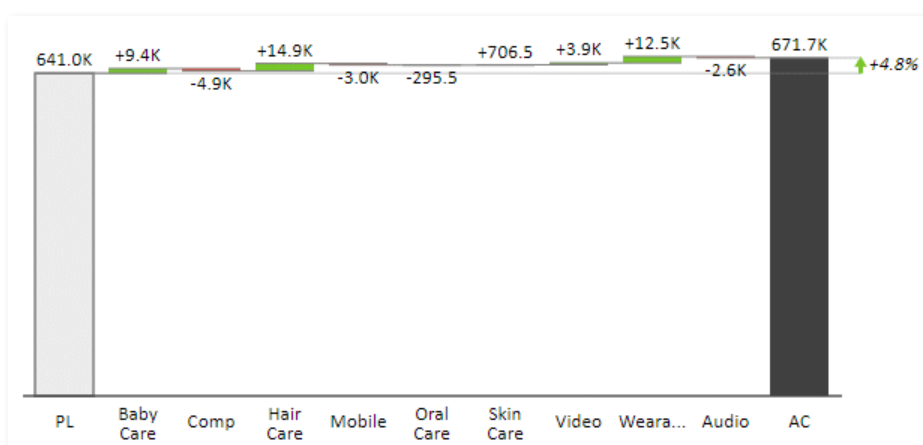
The chart shows the **contribution of each business unit** to the the plan. However, the **horizontal axis chart is more suitable for a time series**, which is why we should rotate it by 90 degrees. Click on the chart settings and select the ***Show vertical axis*** option.
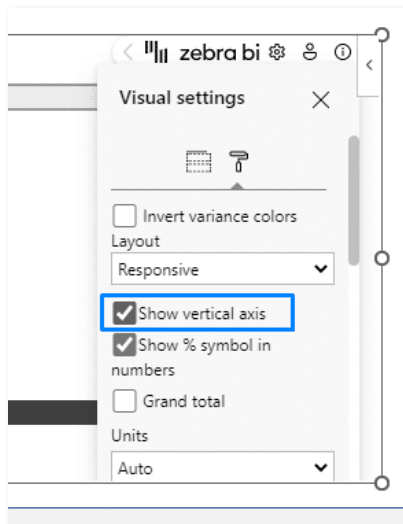
This gives you a much more appropriate design of the waterfall chart for this case. Additionally, you can use the ***Axis break*** to highlight the variances.
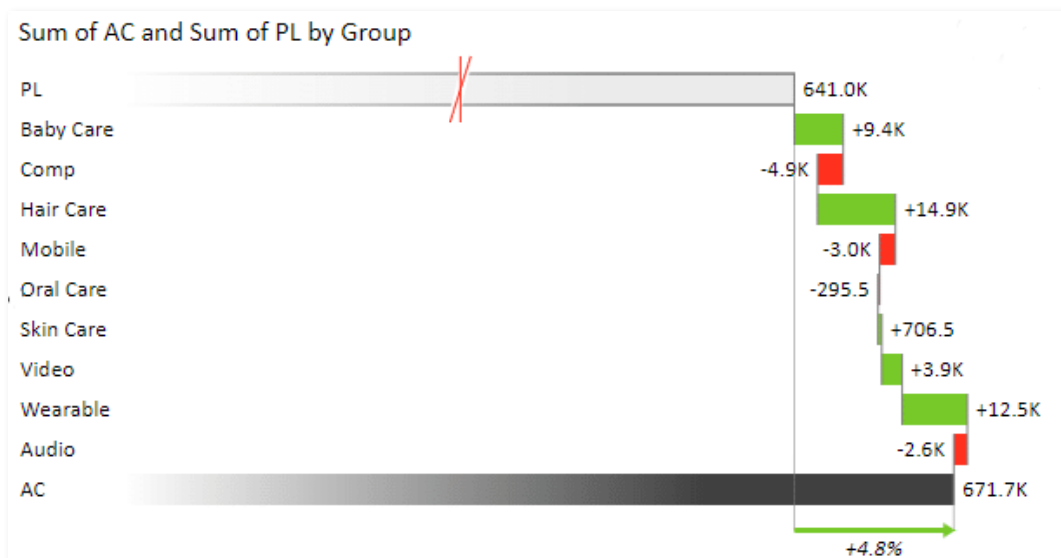
Finishing touches

Your users will need to navigate through your report, so you can add **hyperlinks** that will enable them to move from the landing page to the relevant pages in your report.

You can do this by adding a circle with an arrow in it, and then use it as a link. Once you have the design ready, click on it and insert a **_Link_**. In the window that opens, select the **_Place in This Document_** option and simply select the sheet to which you want the arrow to lead.
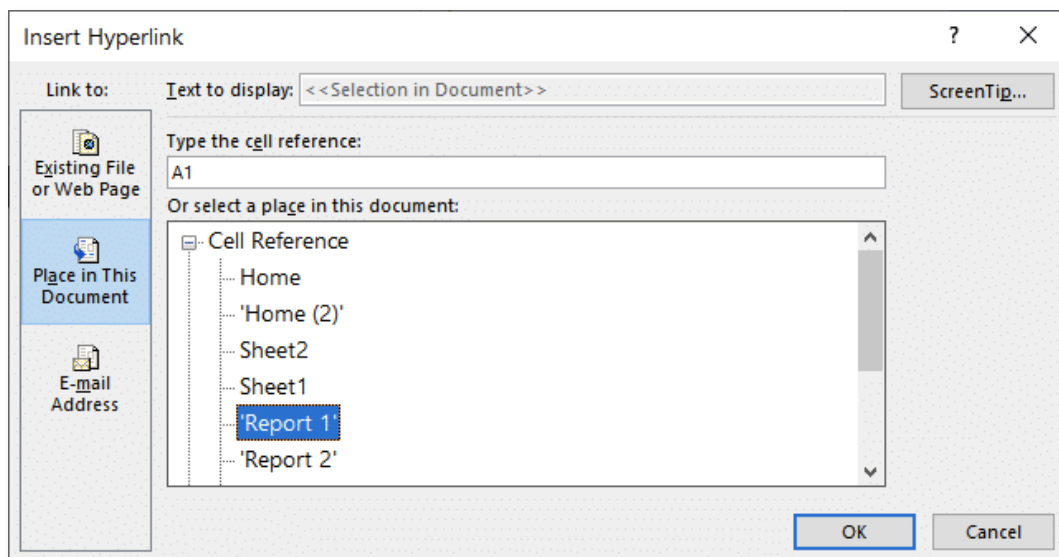
And voilà, here's how you can create interactive Excel dashboards acording to the **latest reporting best practices!** And do it quickly and efficiently.

Forget hours and hours of manual work. With **Zebra BI for Office**[1], you can **save yourself a bunch of time and effort** to focus on what _really_ matters: actionable insights.

As for your stakeholders, they'll finally be able to grasp the **key business metrics at a glance**. Not to mention easily navigate through your report to explore the data in more detail. It doesn't get better than this!

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Appendix: Hyperlinks

1. **Zebra BI for Office**
   https://zebrabi.com/zebra-bi-for-office/

2. **IBCS**
   https://www.ibcs.com/

3. **Webinar: Must-Know Tricks For Interactive Excel Dashboards in 2023**
   https://zebrabi.com/webinar/must-know-tricks-interactive-excel-dashboards/

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