

5. Car costs

Level

To follow this lesson you need basic knowledge of Excel.

You can already work with formulas to some extent, and copying and pasting is no problem for you either.

Comparing car costs

In this lesson you will learn how to fix cells in formulas and how to create charts.

[Download](#) the Car costs file, or create your own car costs file as shown below.

A number of fields are still empty; we will be entering formulas in these.

Cell C17 calculates the VAT.

Click on cell C17

Type `=C15*C9` in the cell

Figure 5.1 The Car costs file

	A	B	C
1		Autokosten vergelijken	
2			
3			
4		Kilometers per jaar	4000
5		Dieselprijs	€ 1,119
6		Benzineprijs	€ 1,445
7		Gasprijs	€ 0,625
8		Rente financiering	5%
9		BTW	21%
10			
11		Vul in de onderstaande tabel de kosten voor de verz	
12			
13			
14		Soort Auto	Land Cruiser
15		Aanschafprijs	€ 61.030,00
16		Brandstof	Diesel
17		BTW	=C15*C9
18		Verbruik 1 op	11
19		Brandstof kosten	€ 406,91
20		Wegenbelasting	€ 1.628,00
21		Verzekering	€ 375,00
22		Onderhoud	€ 1.200,00

The VAT is the same for all cars, so cell C9 can be fixed, allowing us to use this

formula for the other cars as well.

Click on C9 in the formula bar

`=C15*C9`

Then press the F4 key; \$ signs are placed in cell C9

The \$ signs mean that when you copy the formula, cell C9 must not change along with it.

`=C15*$C$9`

Press Enter

The answer will appear in cell C17

Copy the answer into cell C17

Select cells D17 to J17

Paste the formula into the cells

Figure 5.2 Calculating VAT

Soon Auto	Land Cruiser	Oude Mercedes	ieuwe Transporter	Hybride auto	Toyota A
Aanschafprijs	€ 61.030,00	€ 10.000,00	€ 54.669,00	€ 20.000,00	€ 10.19
Brandstof	Diesel	Diesel	Diesel	Benzine	Be
BTW	€ 12.816,30	€ 2.100,00	€ 11.480,49	€ 4.200,00	€ 2.13

The VAT has been calculated; we will now create a formula to calculate the financing.

Now that the costs for the cars are known, we can calculate the total costs per year.

In cell C23, you enter a formula to calculate the costs per year.

Place your cursor in cell C23

Click the SUM button Σ

Select cells C19 to C22

Figure 5.3 Calculating the annual costs with SUM

Brandstof kosten	€ 406,91
Wegenbelasting	€ 1.628,00
Verzekering	€ 375,00
Onderhoud	€ 1.200,00
Totale jaarkosten	=SUM(C19:C22)

Press Enter

The answer for the total costs of the Land Cruiser is now in cell C23

Copy this answer to cells D23 to J23

Figure 5.4 Total annual costs

	Soort Auto	Land Cruiser	Oude Mercedes	Nieuwe Transporter	Hybride
15	Aanschafprijs	€ 61.030,00	€ 10.000,00	€ 54.669,00	€ 20.000,00
16	Brandstof	Diesel	Diesel	Diesel	Be
17	BTW	€ 12.816,30	€ 2.100,00	€ 11.480,49	€ 4.200,00
18	Verbruik 1 op	11	9	12	
19	Brandstof kosten	€ 406,91	€ 497,33	€ 373,00	€ 280,00
20	Wegenbelasting	€ 1.628,00	€ 1.736,00	€ 1.736,00	€ 1.628,00
21	Verzekering	€ 375,00	€ 300,00	€ 900,00	€ 900,00
22	Onderhoud	€ 1.200,00	€ 1.200,00	€ 1.200,00	€ 1.200,00
23	Totale jaarkosten	€ 3.609,91	€ 3.733,33	€ 4.209,00	€ 4.010,00

Now that the Annual costs have been calculated, the Monthly costs can be calculated as well.

In cell C25, create a formula to calculate the monthly costs.

Figure 5.5 Calculating monthly costs

	A	B	C
4		Kilometers per jaar	4000
5		Dieselprijs	€ 1,119
6		Benzineprijs	€ 1,445
7		Gasprijs	€ 0,625
8		Rente financiering	5%
9		BTW	21%
10			
11		Vul in de onderstaande tabel de kosten voor de verz	
12			
13			
14		Soort Auto	Land Cruiser
15		Aanschafprijs	€ 61.030,00
16		Brandstof	Diesel
17		BTW	€ 12.816,30
18		Verbruik 1 op	11
19		Brandstof kosten	€ 406,91
20		Wegenbelasting	€ 1.628,00
21		Verzekering	€ 375,00
22		Onderhoud	€ 1.200,00
23		Totale jaarkosten	€ 3.609,91
24			
25		Maandlasten	=C23/12

Charts

The overview of the car costs is now complete.

To see clearly which cars are the most economical, we will add two charts.

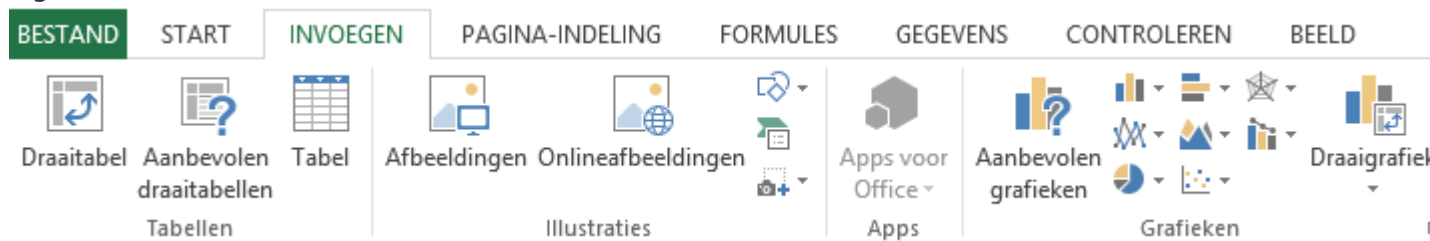
Select cells B14 to J15

Figure 5.6 Selecting

13						
14		Soort Auto	Land Cruiser	Oude Mercedes	Nieuwe Transporter	Hybride
15		Aanschafprijs	€ 61.030,00	€ 10.000,00	€ 54.669,00	€ 20.000,00

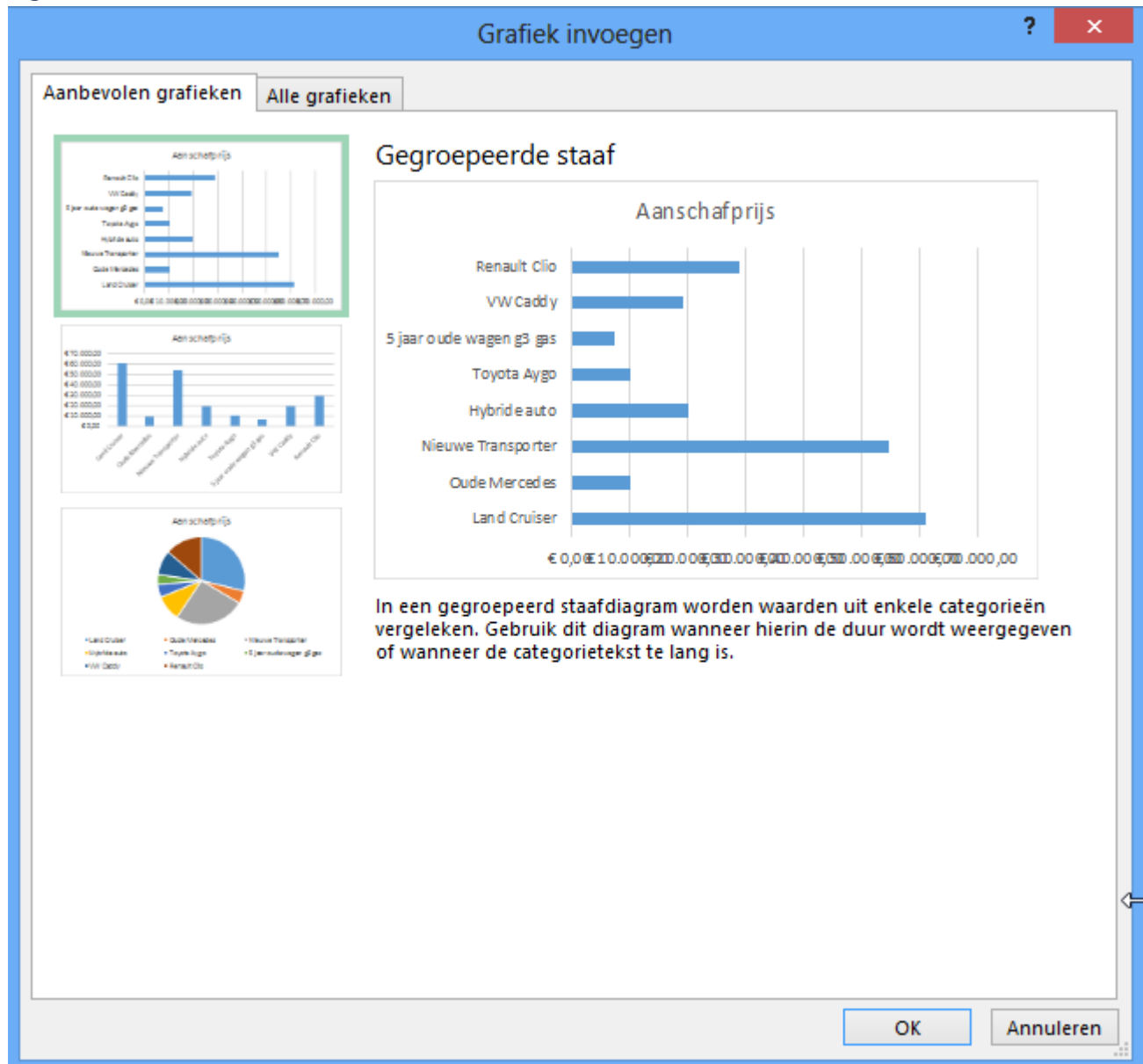
Go to the Insert tab

Figure 5.7 Insert tab



Click the Recommended Charts button

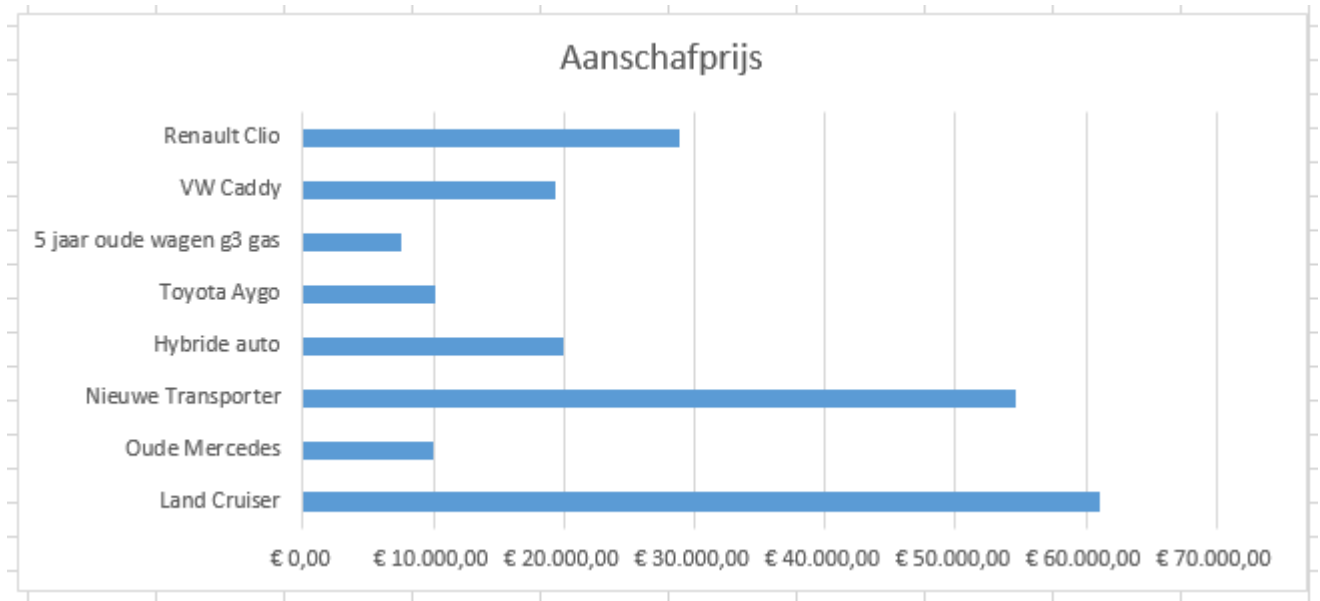
Figure 5.8 Recommended Chart



Click OK Excel places a chart in the worksheet

You can move the chart by dragging it with the mouse

Figure 5.9 Purchase price chart



We will also create a chart of the Monthly costs

Select cells B14 through J14

Hold down the CTRL key

Select cells B25 to J25

Figure 5.10 Selecting monthly costs

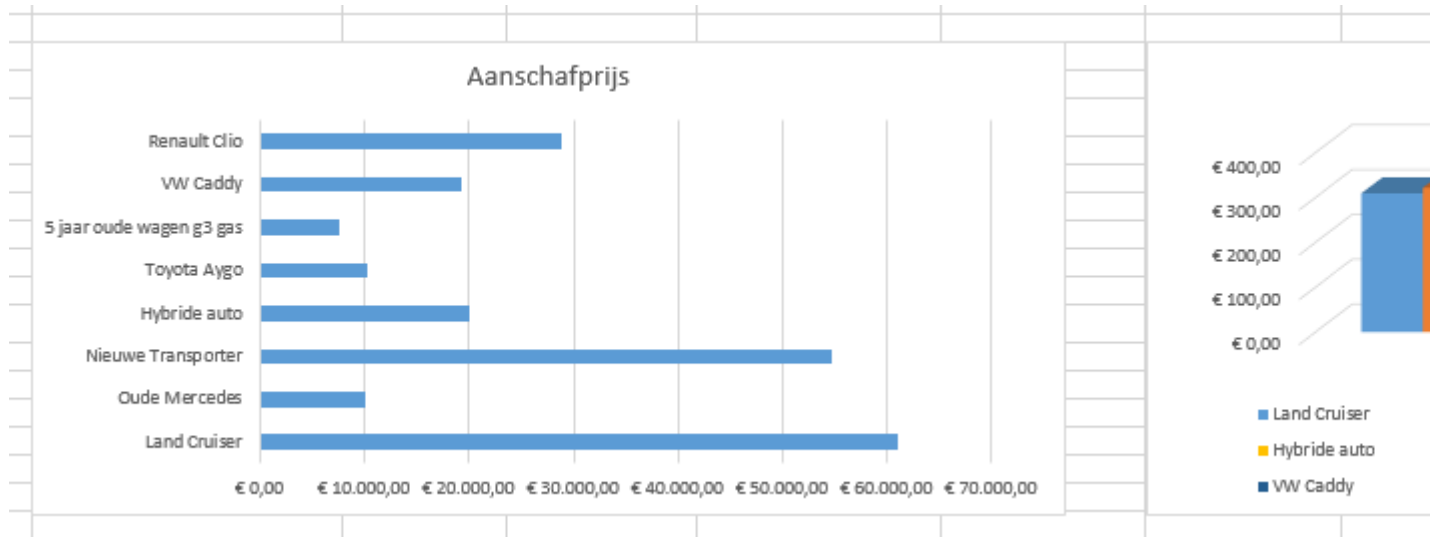
Soort Auto	Land Cruiser	Oude Mercedes	Nieuwe Transporter	Hybride auto
Aanschafprijs	€ 61.030,00	€ 10.000,00	€ 54.669,00	€ 20.000,00
Brandstof	Diesel	Diesel	Diesel	Benzine
BTW	€ 12.816,30	€ 2.100,00	€ 11.480,49	€ 4.200,00
Verbruik 1 op	11	9	12	20
Brandstof kosten	€ 406,91	€ 497,33	€ 373,00	€ 289,00
Wegenbelasting	€ 1.628,00	€ 1.736,00	€ 1.736,00	€ 1.628,00
Verzekering	€ 375,00	€ 300,00	€ 900,00	€ 900,00
Onderhoud	€ 1.200,00	€ 1.200,00	€ 1.200,00	€ 1.200,00
Totale jaarkosten	€ 3.609,91	€ 3.733,33	€ 4.209,00	€ 4.017,00
Maandlasten	€ 300,83	€ 311,11	€ 350,75	€ 334,75

Choose a 3-D column chart

Place the charts neatly below the car costs table

What happens if the number of kilometres per year is changed to 5000?

Figure 5.14 The result

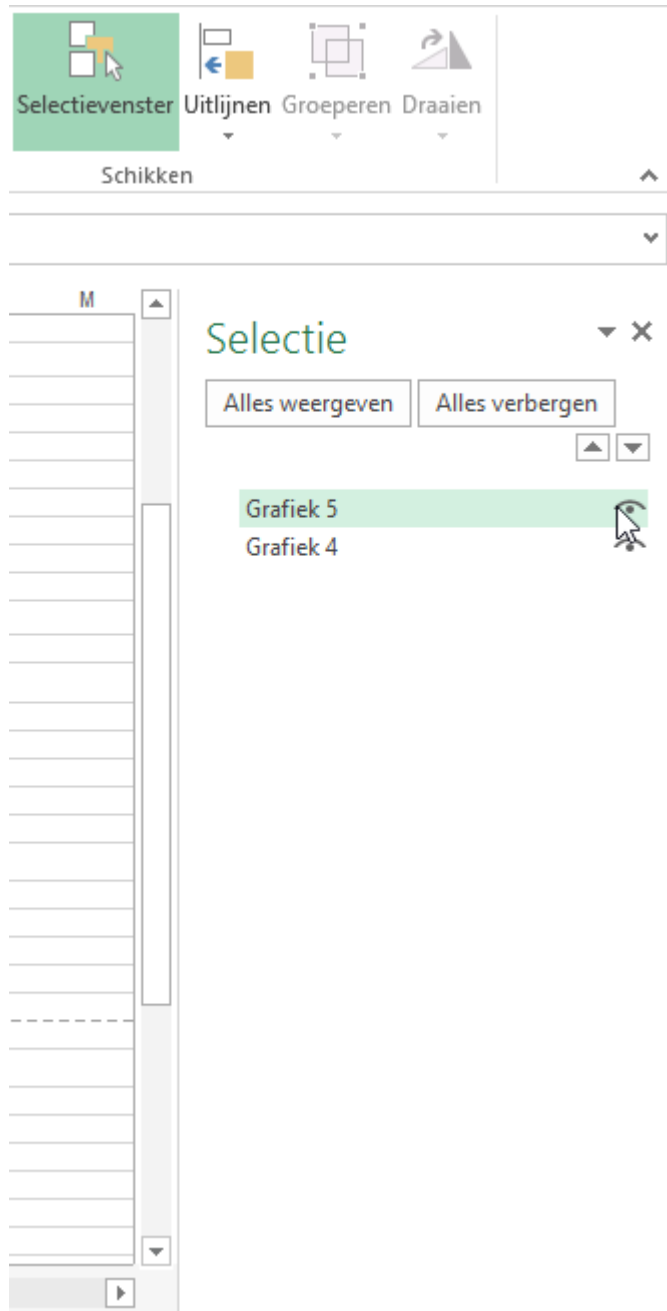


Page Layout, selection pane

If you do not want to display or print the charts for the time being, you can switch them off temporarily.

Go to the PAGE LAYOUT tab and click the Selection Pane button on the right-hand side

Figure 5.15 Selection Pane



Click the eye icon next to the chart. The chart is hidden.
(Note: the names of the charts in your Excel file may differ)