



# What's new in Invest for Excel version 4.2

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## Version 4.2

Invest for Excel version 4.2 (compilation 4.2.001) introduces new features, consolidates features and fixes implemented after version 4.1 (compilation 4.1.001).



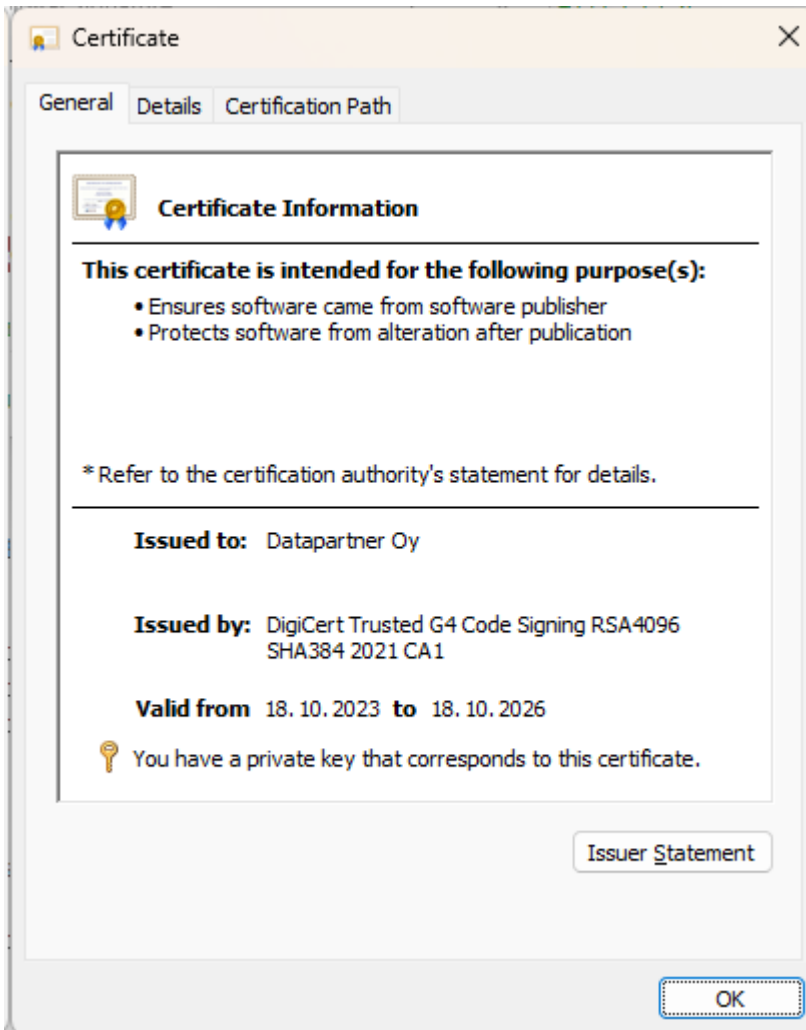
## Microsoft Excel versions supported

Invest for Excel 4.2 is supported for:

Microsoft Excel versions 2010, 2013, 2016, 2019, 2021 and 365 Desktop running in Windows 8.1, Windows 10 or Windows 11, 32-bit or 64-bit.

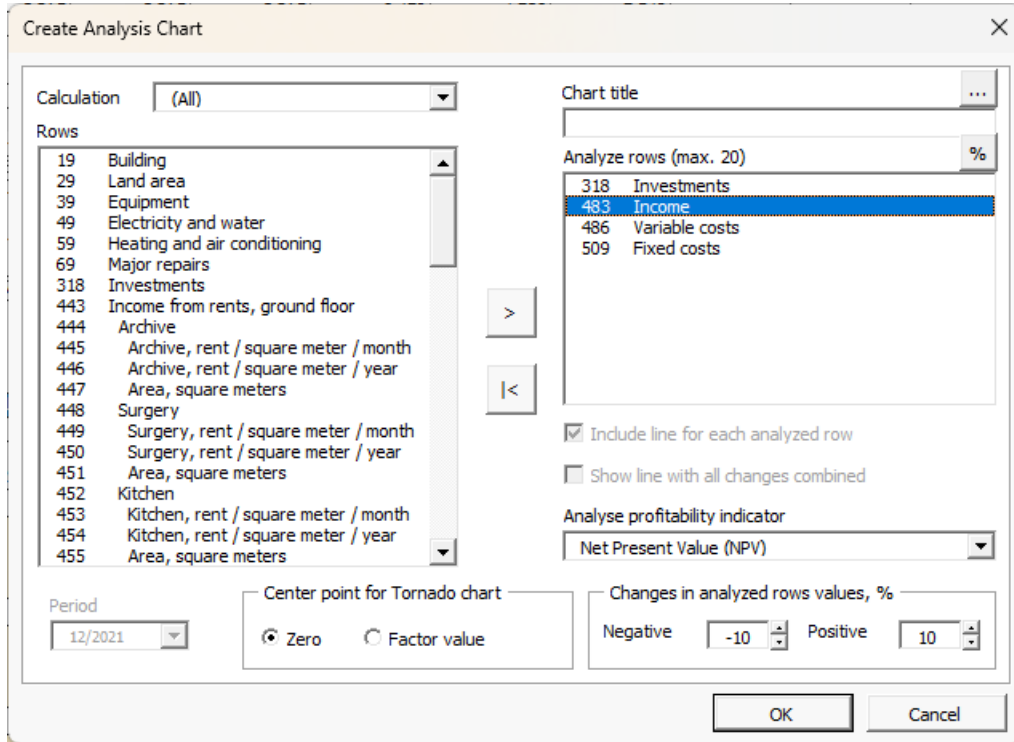
## Digital signature

Invest for Excel program code is signed with a digital signature which is valid until Oct. 18, 2026.

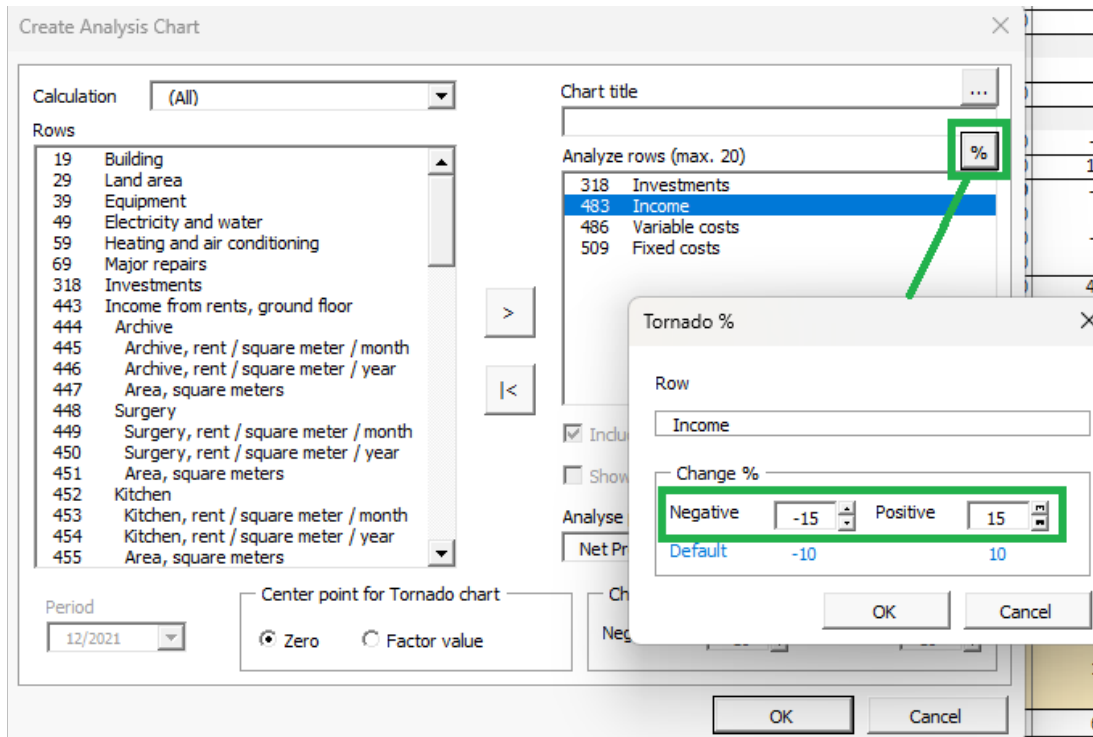


## Individual change percentages in Tornado

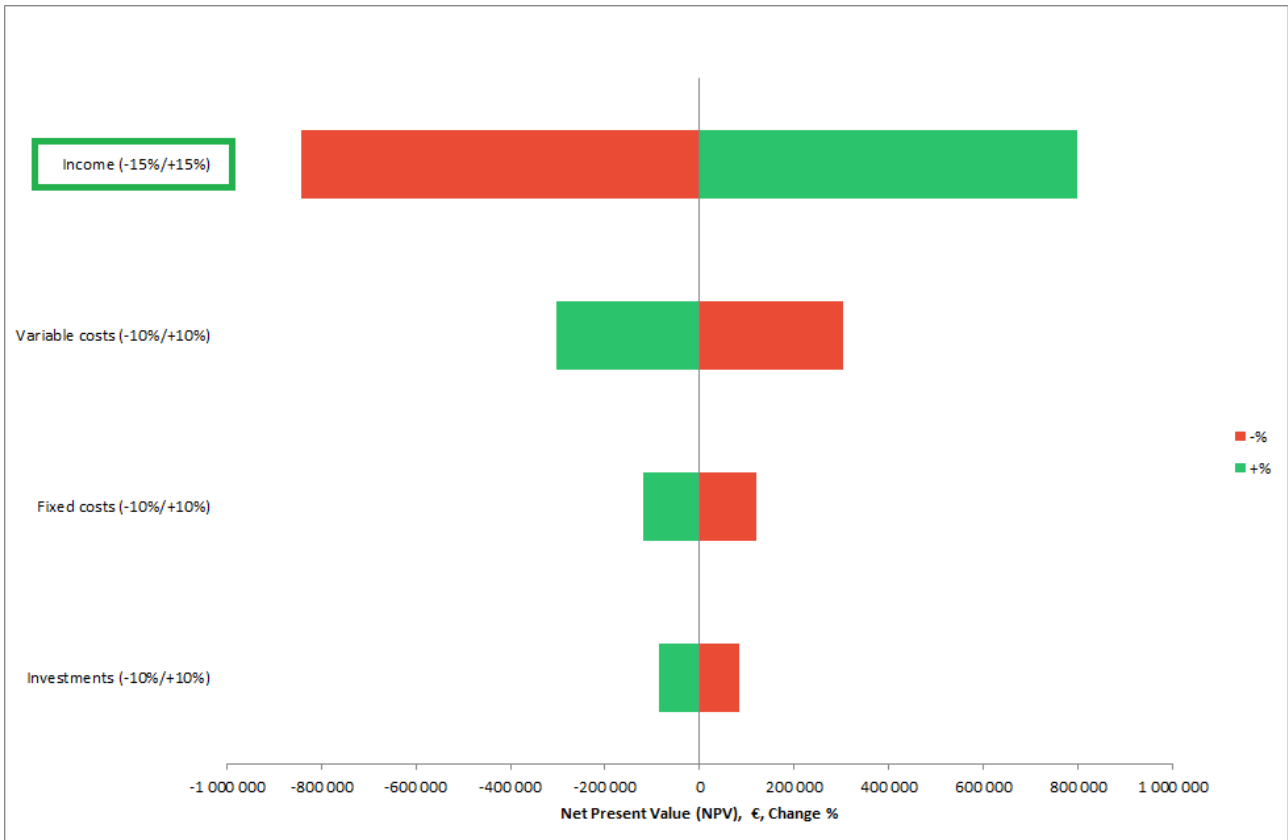
You can use individual change percentages in a Tornado analysis chart. Choose the row for which you want to enter individual change percentages.



Click the %-button above the list and enter change percentages in the form that opens.



The individual differences are shown in the Tornado chart.



## Czech language

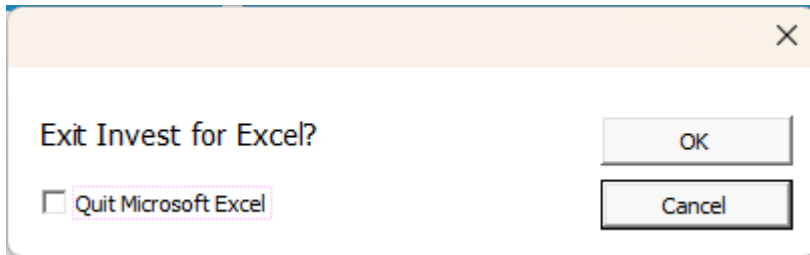
Czech language has been added to Invest for Excel.

The screenshot shows the Invest for Excel software interface in Czech. The interface includes a menu bar (File, Soubor IFE, Vstup, Výsledek, Analýza, Formát, Jiné) and a ribbon with various icons. The main panel displays the following sections:

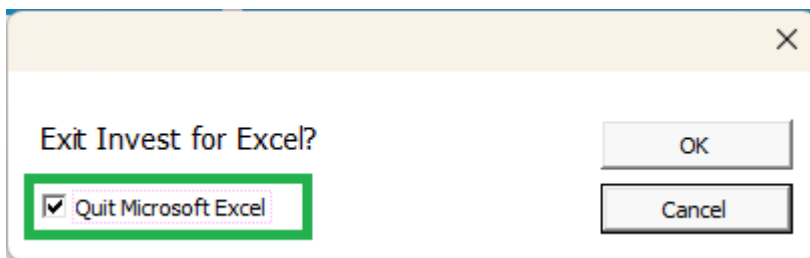
- Vstupní hodnoty**
  - Základní hodnoty
  - Kontaktní informace
  - Složky a soubory
  - Průvodce programem
  - [Návod k obsluze \(pdf\)](#)
- Kalkulace**
  - Investice
  - Výsledovka
  - Provozní kapitál
  - Peněžní tok
  - Rozvaha
  - Klíčové finanční údaje
  - Financování
- Výsledek**
  - Analýza ziskovosti
  - Srovnávací tabulka
  - Mezní efekt
  - Konsolidace
  - Test poškození ověření
  - Návrh investice
- Analýza**
  - Diskontní faktor
  - Celková investice
  - Příjem
  - Variabilní náklady
  - Fixní náklady
  - Volitelná proměnná
  - Grafy

## Exit Invest for Excel without exiting Microsoft Excel

When you exit Invest for Excel, you can choose to stay in Microsoft Excel or close both Invest for Excel and Microsoft Excel.

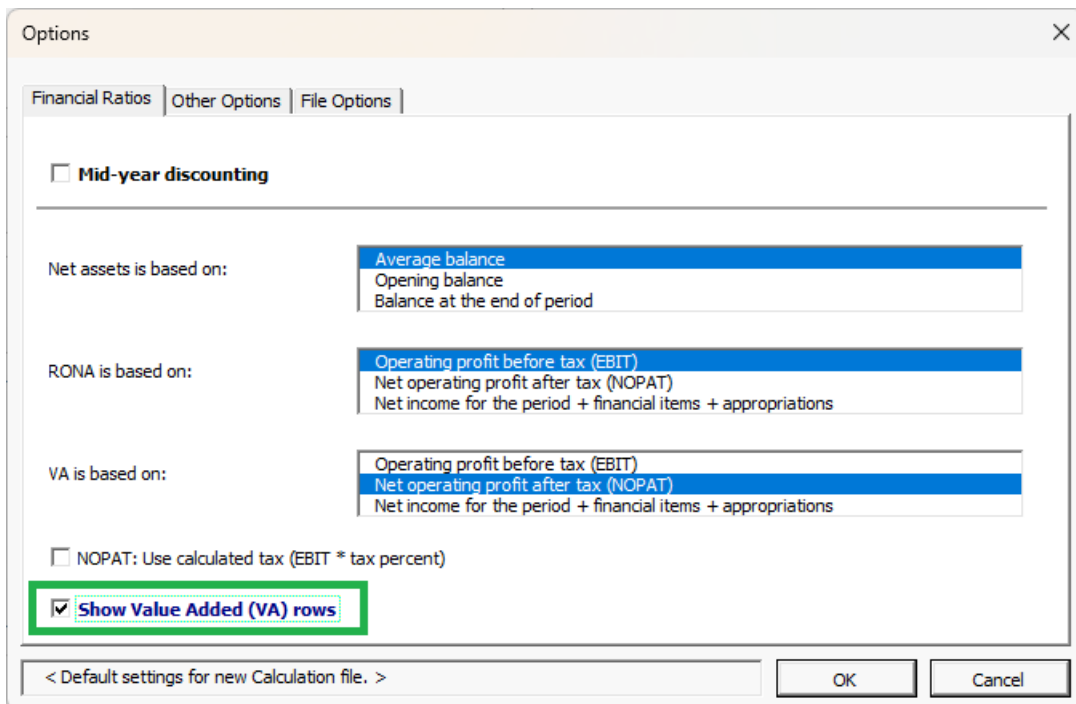


Check **Quit Microsoft Excel** and press OK to close both Invest for Excel and Microsoft Excel.



## Show Value Added (VA) rows

By default, Value Added-related rows are not shown in new calculation files. If you want to show Value Added rows in new calculation files, check the **Show Value Added (VA) rows** in the Invest for Excel **Options**.



The function will unhide/hide Value Added-related rows in **Calculations** sheet and **Result** sheet.

When you have a calculation file active you can easily unhide/show Value Added rows.

PROFITABILITY ANALYSIS			
Project description	Wind power plant 1 MW		€
Nominal value of all investments	3 610 000	Discounted investments	3 453 954
Required rate of return	11,75 %		
Calculation term	15,5	years	7/2021 - 12/2036
Calculation point	7/2021	(In the beginning of period)	
<b>Present value of business cash flows</b>			
	<u>Nominal</u>	<u>PV</u>	<u>Notes</u>
± PV of operative cash flow		4 365 523	
+ PV of residual value	84 437	15 090	
<b>Present value of business cash flows</b>		<b>4 380 613</b>	
- Present value of reinvestments	0	0	
<b>Total Present Value (PV)</b>		<b>4 380 613</b>	
<b>Investment proposal</b>			
	<u>Nominal</u>	<u>PV</u>	
- Proposed investments in assets	-3 610 000	-3 453 954	
+ Investment subventions	0	0	
<b>Investment proposal</b>	<b>-3 610 000</b>	<b>-3 453 954</b>	
<b>Net Present Value (NPV)</b>		<b>926 659</b>	>= 0 -> profitable
NPV as a monthly annuity		10 494	
Internal Rate of Return (IRR)	15,98 %	>= 11,75 %	-> profitable
Modified Internal Rate of Return (MIRR)	13,48 %	>= 11,75 %	-> profitable
Profitability Index (PI)	1,27	>= 1	-> profitable
Payback time, years		10,6	Based on discounted FCF
Calculation is made by	Datapartner Customer Support		
Calculation file			

Check the **Show Value Added (VA) rows** in the Invest for Excel **Options**.

Options ✕

Financial Ratios | Other Options | File Options

Mid-year discounting

---

Net assets is based on: Average balance  
Opening balance  
Balance at the end of period

RONA is based on: Operating profit before tax (EBIT)  
Net operating profit after tax (NOPAT)  
Net income for the period + financial items + appropriations

VA is based on: Operating profit before tax (EBIT)  
Net operating profit after tax (NOPAT)  
Net income for the period + financial items + appropriations

NOPAT: Use calculated tax (EBIT \* tax percent)

**Show Value Added (VA) rows**

< WindPowerPlant1 > OK Cancel



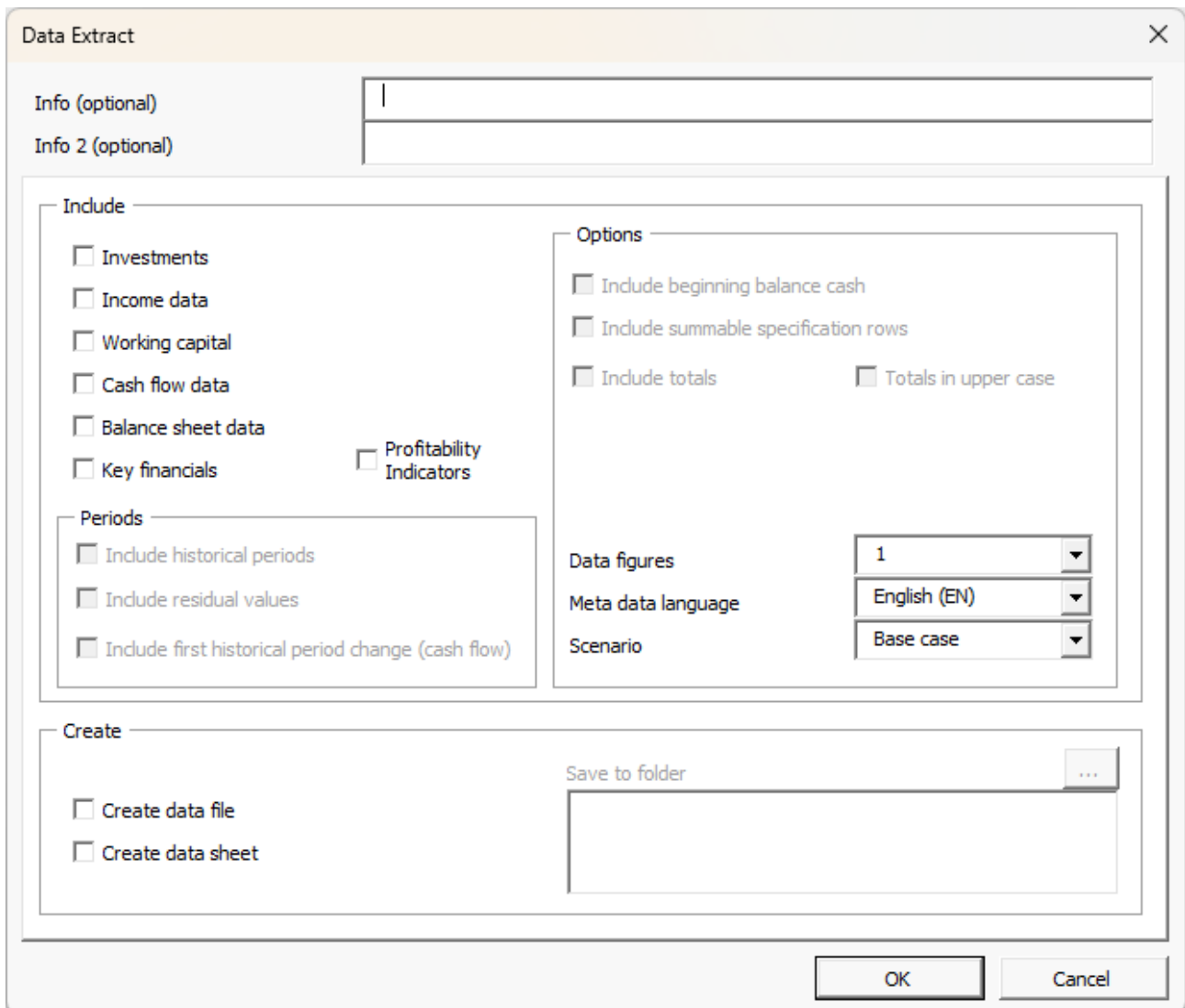
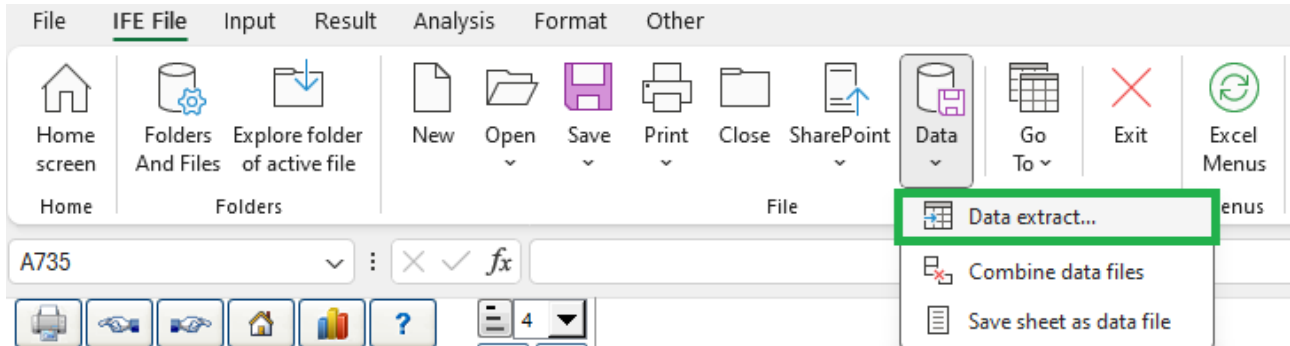
Value Added rows are shown in **Result** sheet and **Calculations** sheet.

PROFITABILITY ANALYSIS					
Project description		Wind power plant 1 MW			€
Nominal value of all investments	3 610 000	Discounted investments	3 453 954		
Required rate of return	11,75 %				
Calculation term	15,5	years	7/2021 - 12/2036		
Calculation point	7/2021	(In the beginning of period)			
<u>Present value of business cash flows</u>		<u>Nominal</u>	<u>PV</u>	<u>Notes</u>	
± PV of operative cash flow		4 365 523			
+ PV of residual value	...	84 437	15 090		
<b>Present value of business cash flows</b>		<b>4 380 613</b>			
- Present value of reinvestments	0	0			
<b>Total Present Value (PV)</b>		<b>4 380 613</b>			
<u>Investment proposal</u>		<u>Nominal</u>	<u>PV</u>		
- Proposed investments in assets	-3 610 000	-3 453 954			
+ Investment subventions	0	0			
<b>Investment proposal</b>		<b>-3 610 000</b>	<b>-3 453 954</b>		
<b>Net Present Value (NPV)</b>		<b>926 659</b>	>= 0	->	profitable
NPV as a monthly annuity	10 494				
Internal Rate of Return (IRR)	15,98 %	>= 11,75 %	->	profitable	
Modified Internal Rate of Return (MIRR)	13,48 %	>= 11,75 %	->	profitable	
Profitability Index (PI)	1,27	>= 1	->	profitable	
Payback time, years	10,6	Based on discounted FCF			
Return on net assets (RONA), %	52,5 %	Average 16 years			
Value Added (VA)	229 032	Average 16 years			
<b>Discounted Value Added (DCVA)</b>	853 945				
<b>Internal Rate of Return based on DCVA (IRRd)</b>	15,37 %	>= 11,75 %	->	profitable	
<b>Modified Internal Rate of Return based on DCVA (MIRRd)</b>	14,07 %	>= 11,75 %	->	profitable	
Payback time, years, based on DCVA	7,7				
Calculation is made by		Datapartner Customer Support			
Calculation file					

Net income for the period	0	0	339 203	356 599	374 517	392 973	411 982
Net income for the period, %			50,6%	51,7%	52,7%	53,7%	54,6%
<b>Return on net assets (RONA), %</b>	...	0,0%	9,6%	10,8%	12,2%	13,9%	15,9%
<b>Value Added (VA)</b>		-212 088	-74 112	-31 816	14 181	60 709	107 785
<b>Discounted Value Added (DCVA)</b>		-200 628	-62 736	-24 100	9 613	36 825	58 505
<b>Cumulative Discounted Value Added</b>		-200 628	-263 364	-287 464	-277 852	-241 027	-182 521
Operating profit		0	339 203	356 599	374 517	392 973	411 982

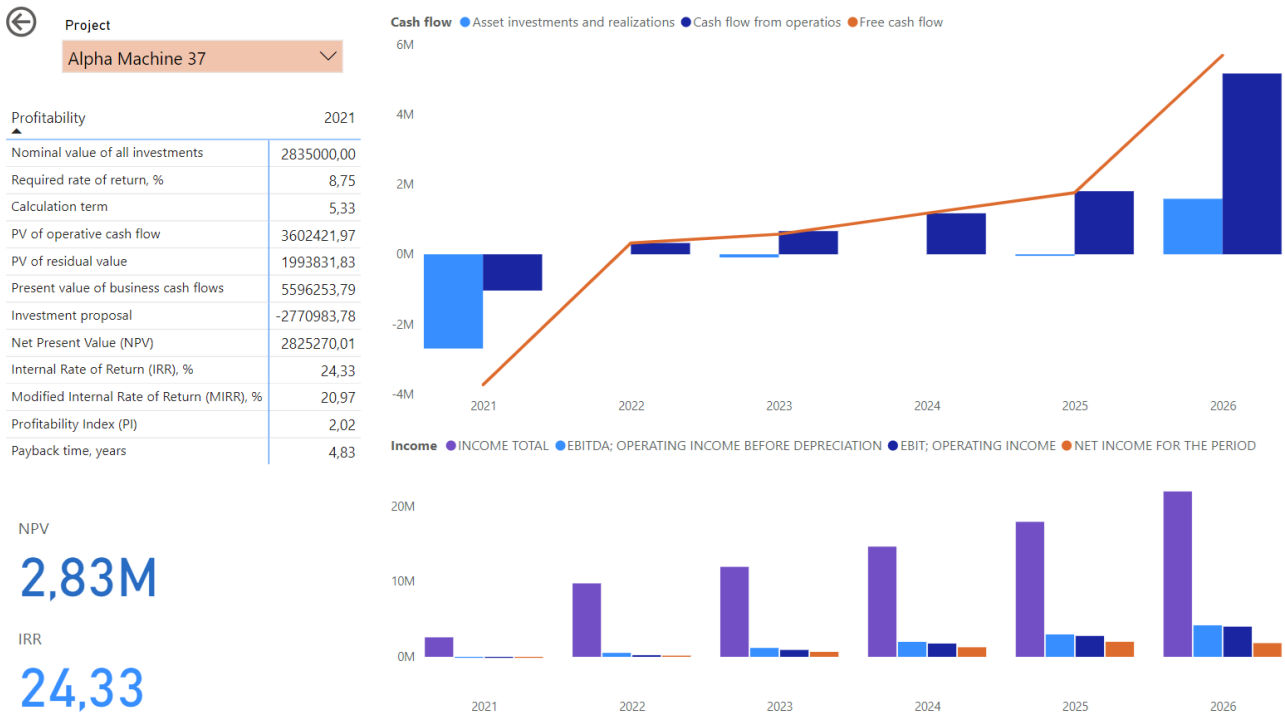
## Data extract

Data can be extracted from a calculation file by using the “Data extract” function in the IFE File – Data menu.



Data extract is useful when you want to use Invest for Excel data in a database type of application, for example Microsoft Power BI Desktop.

Power BI has been used in this document as examples of how the extracted data can be used. Data can of course also be used in other applications.



Data extract can also be used to analyse calculation data in Excel, for example in using Pivot tables.

You can choose to include investment data, income data, working capital data, cash flow data, balance sheet data, key financials table data from Calculations sheet and profitability indicators from Result sheet. Each type of data is extracted to a separate sheet/data file.

## Info fields

Two optional info fields are available for including calculation project-specific information. You can for example enter an identifier used in the system where you use the data.

Info (optional)	AB12300755
Info 2 (optional)	

All project-specific fields:

Project	Info	Info 2	Scenario	Figures	Currency
Hospital property 37	AB12300755		Base case	1	€
Hospital property 37	AB12300755		Base case	1	€
Hospital property 37	AB12300755		Base case	1	€

Project is taken from the Basic values table:

BASIC VALUES	
Project description	Hospital property 37

## Other calculation project-specific fields

Calculation-specific fields are Scenario, Figures and Currency. Scenario and figures (monetary units) can be changed in the Data Extract dialog box, but currency is the currency taken from the Basic values sheet. Note that you can also enter your own Scenario description.

Scenario	Base case	Data figures	1
	<ul style="list-style-type: none"> <li>Base case</li> <li>Worst case</li> <li>Best case</li> </ul>		<ul style="list-style-type: none"> <li>1</li> <li>1000</li> <li>1000000</li> </ul>

## Period fields

Period fields include Date, Year, Month and Financial year. These fields correspond to the periods in Calculation file columns.

Date	Year	Month	Financial year
1.1.2021	2021	1	2021
31.12.2040	2040	12	2040
31.12.2021	2021	12	2021

## Investments

Investments includes data from the Investments and realizations table.

Table and Table sort fields can be used to filter investments from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Investments	100	Investment	100001	C0500	Building	3611001
Investments	100	Investment	100001	C0500	Building	3611001
Investments	100	Depreciation	270000	C0500	Building	3611001

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for investments can include Investment, Depreciation, Book value, Imputed depreciation and Imputed book value.

If totals are included, the following row types can be included: Total Investments, Total Realizations, Total Depreciation, Total Realization profit/loss, Total Book value, Total Imputed depreciation and Total Imputed book value.

Row code is an internal identifier used by Invest for Excel. It is included for reference. Row name is the row description and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Buildings and structures	8000	Proposed investment	10000	Value	-300 000,00
Buildings and structures	8000	Proposed investment	10000	Residual Value	60 000,00
Buildings and structures	8000	Proposed investment	10000	Value	-12 000,00

Row name 2 is asset type and Row sort 2 can be used to sort Row name 2 (when possible).

Row name 3 is Proposed investment or Reinvestment and Row sort 3 can be used to sort Row name 3 (when possible).

Data type holds info on what kind of data the row holds. Possible data types are Value, Residual Value, Total and Residual Value Total.

The Amount field holds the amount for the row and period. Zero values are not included.

Example of a matrix report in Power BI (Investment data from four example files):

EUR	2021	2022	2023	2024	2025	2026
<b>Investment</b>						
<b>Alpha Machine 37</b>						
Alpha Machine 37	-1000000,00					100000,00
Production hall	-1700000,00					400000,00
Maintenance			-90000,00		-45000,00	22500,00
<b>Hospital property 37</b>						
Building	-300000,00					
Land area	-100000,00					
Equipment	-70000,00	-20000,00	-20000,00	-20000,00	-20000,00	-20000,00
Electricity and water	-15000,00	-15000,00	-15000,00	-15000,00		
Heating and air conditioning		-20000,00	-20000,00	-20000,00		
Major repairs		-222000,00	-111000,00	-55500,00		
<b>New flight route</b>	<b>-4950000,00</b>		<b>600000,00</b>			
<b>Wind power plant 1 MW</b>	<b>-3610000,00</b>					
<b>Depreciation</b>	<b>-624559,52</b>	<b>-1107814,52</b>	<b>-1061410,77</b>	<b>-1028685,46</b>	<b>-1010976,48</b>	<b>-976257,24</b>
<b>Book value</b>	<b>11316377,98</b>	<b>10485563,45</b>	<b>9531715,18</b>	<b>8613529,72</b>	<b>7667553,24</b>	<b>5121489,53</b>
<b>TOTAL INVESTMENTS</b>	<b>-11745000,00</b>	<b>-277000,00</b>	<b>-256000,00</b>	<b>-110500,00</b>	<b>-65000,00</b>	<b>-20000,00</b>
<b>TOTAL REALIZATIONS</b>			<b>148437,50</b>			<b>1589806,48</b>
<b>TOTAL DEPRECIATION</b>	<b>-624559,52</b>	<b>-1107814,52</b>	<b>-1061410,77</b>	<b>-1028685,46</b>	<b>-1010976,48</b>	<b>-976257,24</b>
<b>TOTAL REALIZATION PROFIT/LOSS</b>			<b>451562,50</b>			<b>-1067306,48</b>
<b>TOTAL BOOK VALUE</b>	<b>11316377,98</b>	<b>10485563,45</b>	<b>9531715,18</b>	<b>8613529,72</b>	<b>7667553,24</b>	<b>5121489,53</b>

The matrix visualization settings of the example:

The image shows the 'Visualizations' and 'Data' panes in Power BI. The 'Visualizations' pane on the left shows a matrix visualization selected. The 'Data' pane on the right shows the data model settings for the matrix.

**Visualizations Pane:**

- Build visual:** Matrix icon selected.
- Rows:** Row type, Project, Row name.
- Columns:** Financial year.
- Values:** Sum of Amount.
- Drill through:** Cross-report (On), Keep all filters (On).
- Table:** Table is Investments.

**Data Pane:**

- Search:** Search bar.
- Data:**
  - $\Sigma$  Amount
  - Currency
  - Data type
  - Date
  - $\Sigma$  Figures
  - $\Sigma$  Financial year
  - Info
  - Info 2
  - $\Sigma$  Month
  - Project
  - Row code
  - Row name
  - Row name 2
  - Row name 3
  - $\Sigma$  Row sort
  - $\Sigma$  Row sort 2
  - $\Sigma$  Row sort 3
  - Row type
  - $\Sigma$  Row type sort
  - Scenario
  - Source.Name
  - Table
  - $\Sigma$  Table sort
  - $\Sigma$  Year

## Income data

Income data include data in the Income statement.

Table and Table sort fields can be used to filter Income from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Income	200	Income	200000	C9000S01	Income from rents, ground floor	210000
Income	200	Income	200000	C9000S01	Income from rents, ground floor	210000
Income	200	Income	200000	C9000S01	Income from rents, ground floor	210000

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for income can include Income, Other income, Variable costs, Fixed costs etc.

If totals are included, the following row types can be included: Income total, Gross margin, EBITDA; Operating income before depreciation, EBIT; Operating income, Net income for the period.

Row code is an internal identifier used by Invest for Excel. It is included for reference.

Row name is the row description and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Archive		Archive		Value	70 247,52
Archive		Archive		Value	71 652,47
Archive		Archive		Value	73 085,52

Row name 2 is first level specification row text when available and when specification rows are included, otherwise Row name 2 is a duplicate of Row name. Row sort 2 is empty for Income data.

Row name 3 is second level specification row text when available and when specification rows are included, otherwise Row name 3 is a duplicate of Row name 2. Row sort 3 is empty for Income data.

Data type holds info on what kind of data the row holds. Possible data types are Value, Residual Value, Total and Residual Value Total.

The Amount field holds the amount for the row and period. Zero values are not included.



Example of a matrix report in Power BI (Income data from example file):

Project						
Hospital property 37						
EUR	2021	2022	2023	2024	2025	2026
<b>Income</b>						
<b>Income from rents, ground floor</b>						
Archive	70247,52	71652,47	73085,52	74547,23	76038,17	77558,94
Kitchen	48029,76	48990,36	49970,16	50969,57	51988,96	53028,74
Surgery	70584,00	71995,68	73435,59	74904,31	76402,39	77930,44
<b>Income from rents, first floor</b>	<b>204400,00</b>	<b>208488,00</b>	<b>212657,76</b>	<b>216910,92</b>	<b>221249,13</b>	<b>225674,12</b>
<b>Income from rents, second floor</b>	<b>79992,00</b>	<b>81591,84</b>	<b>83223,68</b>	<b>84888,15</b>	<b>86585,91</b>	<b>88317,63</b>
<b>Income from rents, third floor</b>	<b>166414,00</b>	<b>169742,28</b>	<b>173137,13</b>	<b>176599,87</b>	<b>180131,87</b>	<b>183734,50</b>
<b>INCOME TOTAL</b>	<b>639667,28</b>	<b>652460,63</b>	<b>665509,84</b>	<b>678820,03</b>	<b>692396,44</b>	<b>706244,36</b>
<b>Variable costs</b>						
<b>External charges</b>						
Cleaning	-44400,00	-45288,00	-46193,76	-47117,64	-48059,99	-49021,19
Security services	-3180,00	-3243,60	-3308,47	-3374,64	-3442,13	-3510,98
<b>Other variable costs</b>	<b>-359064,00</b>	<b>-340765,28</b>	<b>-322590,59</b>	<b>-329042,40</b>	<b>-335623,25</b>	<b>-342335,71</b>
<b>GROSS MARGIN</b>	<b>233023,28</b>	<b>263163,75</b>	<b>293417,02</b>	<b>299285,36</b>	<b>305271,07</b>	<b>311376,49</b>
<b>Fixed costs</b>						
<b>Staff costs</b>						
Estate management; Accounting	-15000,00	-15300,00	-15606,00	-15918,12	-16236,48	-16561,21
Service men (2 persons)	-76000,00	-77520,00	-79070,40	-80651,81	-82264,84	-83910,14
<b>Other fixed costs</b>	<b>-53500,00</b>	<b>-54570,00</b>	<b>-55661,40</b>	<b>-56774,63</b>	<b>-57910,12</b>	<b>-59068,32</b>
<b>EBITDA; OPERATING INCOME BEFORE DEPRECIATION</b>	<b>88523,28</b>	<b>115773,75</b>	<b>143079,22</b>	<b>145940,80</b>	<b>148859,62</b>	<b>151836,81</b>
<b>Depreciation</b>	<b>-28142,86</b>	<b>-46022,86</b>	<b>-59462,86</b>	<b>-70682,86</b>	<b>-74682,86</b>	<b>-64682,86</b>
<b>EBIT; OPERATING INCOME</b>	<b>60380,42</b>	<b>69750,89</b>	<b>83616,36</b>	<b>75257,95</b>	<b>74176,76</b>	<b>87153,96</b>
<b>Income tax</b>	<b>-16906,52</b>	<b>-19530,25</b>	<b>-23412,58</b>	<b>-21072,23</b>	<b>-20769,49</b>	<b>-24403,11</b>
<b>NET INCOME FOR THE PERIOD</b>	<b>43473,90</b>	<b>50220,64</b>	<b>60203,78</b>	<b>54185,72</b>	<b>53407,27</b>	<b>62750,85</b>

The matrix visualization settings of the example:

The image shows the 'Visualizations' and 'Data' panes in Power BI. The 'Visualizations' pane on the left shows a matrix visual selected. The 'Data' pane on the right shows the data model settings for the matrix.

**Visualizations Pane:**

- Build visual:** Matrix icon selected.
- Rows:** Row type, Row name, Row name 2.
- Columns:** Financial year.
- Values:** Sum of Amount.
- Drill through:** Cross-report (On), Keep all filters (On).
- Filters:** Data type is (All), Table is Income.

**Data Pane:**

- Search:** Search bar.
- Data:**
  - Amount
  - Currency
  - Data type
  - Date
  - Figures
  - Financial year
  - Info
  - Info 2
  - Month
  - Project
  - Row code
  - Row name
  - Row name 2
  - Row name 3
  - Row sort
  - Row sort 2
  - Row sort 3
  - Row type
  - Row type sort
  - Scenario
  - Source.Name
  - Table
  - Table sort
  - Year

## Working capital

Working capital include data in the Working capital table.

Table and Table sort fields can be used to filter Working capital from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Working Capital	300	Short-term assets (change)	351000	C3031	Accounts receivable, Increase (-) / decrease (+)	3511000
Working Capital	300	Short-term assets (change)	351000	C3031	Accounts receivable, Increase (-) / decrease (+)	3511000
Working Capital	300	Short-term assets (change)	351000	C3031	Accounts receivable, Increase (-) / decrease (+)	3511000

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for working capital can include Short-term assets (change), Inventories (change) and Current liabilities (change).

If totals are included, Change in working capital (total) and Net working capital are included.

Row code is an internal identifier used by Invest for Excel. It is included for reference.

Row name is the row description and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Accounts receivable, Increase (-) / decrease (+)		Accounts receivable, Increase (-) / decrease (+)		Value	-133 333,33
Accounts receivable, Increase (-) / decrease (+)		Accounts receivable, Increase (-) / decrease (+)		Value	-9 473,33
Accounts receivable, Increase (-) / decrease (+)		Accounts receivable, Increase (-) / decrease (+)		Value	-9 805,60

Row name 2 is a duplicate of Row name. Row sort 2 is not used.

Row name 3 is a duplicate of Row name 2. Row sort 3 is not used.

Data type holds info on what kind of data the row holds. Possible data types are Value, Residual Value, Total and Residual Value Total.

The Amount field holds the amount for the row and period. Zero values are not included.

Example of a matrix report in Power BI (Working capital from example file):

Project	2021	2022	2023	2024	2025	2026
New flight route						
<b>Short-term assets (change)</b>						
Accounts receivable, Increase (-) / decrease (+)	-133333,33	-9473,33	-9805,60	-10147,37	-10498,88	-10860,40
<b>Inventories (change)</b>						
Fuel, Increase (-) / decrease (+)	-7574,00	-258,58	-265,89	-273,40	-281,09	-288,99
Spare parts and oils, Increase (-) / decrease (+)	-55416,67	-1108,33	-1130,50	-1153,11	-1176,17	-1199,70
<b>Current liabilities (change)</b>						
Fuel, Increase (+) / decrease (-)	16230,00	554,10	569,77	585,85	602,34	619,26
Spare parts and oils, Increase (+) / decrease (-)	27708,33	554,17	565,25	576,56	588,09	599,85
<b>CHANGE IN WORKING CAPITAL (TOTAL)</b>	<b>-152385,67</b>	<b>-9731,98</b>	<b>-10066,97</b>	<b>-10411,47</b>	<b>-10765,72</b>	<b>-11129,98</b>
<b>NET WORKING CAPITAL</b>	<b>152385,67</b>	<b>162117,65</b>	<b>172184,62</b>	<b>182596,09</b>	<b>193361,81</b>	<b>204491,79</b>

The matrix visualization settings of the example:

### Visualizations >>

Build visual

---



---

Rows

Row type v x

Row name v x

---

Columns

Financial year v x

---

Values

Sum of Amount v x

---

Drill through

Cross-report On

Keep all filters On

---

Data type v x 🔒  
is (All)

Table v x 🔒  
is Working Capital

### Data >>

▼ Data

- $\Sigma$  Amount
- Currency
- Data type
- >  Date
- $\Sigma$  Figures
- $\Sigma$  Financial year
- Info
- Info 2
- $\Sigma$  Month
- Project
- Row code
- Row name
- Row name 2
- Row name 3
- $\Sigma$  Row sort
- $\Sigma$  Row sort 2
- $\Sigma$  Row sort 3
- Row type
- $\Sigma$  Row type sort
- Scenario
- Source.Name
- Table
- $\Sigma$  Table sort
- $\Sigma$  Year

## Cash flow data

Cash flow data include data from the Cash flow table. For Income and Investment rows more detailed data is included when available.

Table and Table sort fields can be used to filter Cash flow from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Cash Flow	400	Income	200000	C9000	Passenger traffic	210000
Cash Flow	400	Income	200000	C9000	Passenger traffic	210000
Cash Flow	400	Income	200000	C9000	Passenger traffic	210000

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for cash flow can include Income, Variable costs, Fixed costs, Income tax, Change in working capital, Asset investments and realizations etc.

If totals are included, the following row types can be included: Cash flow from operations, Free cash flow (FCF), Discounted free cash flow (DFCF), Total cash flow and Cumulative total cash flow.

Row code is an internal identifier used by Invest for Excel. It is included for reference. Row name is the row description and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Passenger traffic		Passenger traffic		Value	1 400 000,00
Passenger traffic		Passenger traffic		Value	1 513 680,00
Passenger traffic		Passenger traffic		Value	1 631 347,20

Row name 2 is first level specification row text when available and when specification rows are included, otherwise Row name 2 is a duplicate of Row name. Row sort 2 is not used.

Row name 3 is second level specification row text when available and when specification rows are included, otherwise Row name 3 is a duplicate of Row name 2. Row sort 3 is not used.

Data type holds info on what kind of data the row holds. Possible data types are Value, Residual Value, Total and Residual Value Total.

The Amount field holds the amount for the row and period. Zero values are not included.

Example of a matrix report in Power BI (Cash flow from example file):

Project					
New flight route					
EUR	2021	2022	2023	2024	2025
<b>Income</b>					
Passenger traffic	1400000,00	1513680,00	1631347,20	1753115,62	1879102,23
Mail service revenue	200000,00	200000,00	200000,00	200000,00	200000,00
<b>Variable costs</b>	<b>-269760,00</b>	<b>-282499,20</b>	<b>-295640,06</b>	<b>-309193,56</b>	<b>-323170,95</b>
<b>Fixed costs</b>	<b>-582500,00</b>	<b>-594150,00</b>	<b>-606033,00</b>	<b>-670463,66</b>	<b>-683872,93</b>
<b>Income tax</b>	<b>-68697,00</b>	<b>-95484,24</b>	<b>-265870,99</b>	<b>-143537,52</b>	<b>-173117,51</b>
<b>Change in working capital</b>					
Short-term assets	-133333,33	-9473,33	-9805,60	-10147,37	-10498,88
Inventories	-62990,67	-1366,91	-1396,39	-1426,51	-1457,26
Current liabilities	43938,33	1108,27	1135,02	1162,40	1190,43
<b>CASH FLOW FROM OPERATIONS</b>	<b>526657,33</b>	<b>731814,58</b>	<b>653736,17</b>	<b>819509,41</b>	<b>888175,12</b>
<b>Asset investments and realizations</b>					
Aircraft	-4750000,00				
Restoration of airstrip	-200000,00				
Terminal building			148437,50		
<b>Extraordinary income &amp; expenses</b>			<b>451562,50</b>		
<b>FREE CASH FLOW (FCF)</b>	<b>-4423342,67</b>	<b>731814,58</b>	<b>1253736,17</b>	<b>819509,41</b>	<b>888175,12</b>
<b>DISCOUNTED FREE CASH FLOW (DFCF)</b>	<b>-4471916,00</b>	<b>603049,84</b>	<b>937852,14</b>	<b>556491,11</b>	<b>547493,50</b>
<b>CUMULATIVE DISCOUNTED FREE CASH FLOW</b>	<b>-4471916,00</b>	<b>-3868866,17</b>	<b>-2931014,02</b>	<b>-2374522,91</b>	<b>-1827029,41</b>
<b>Financial income and expenses</b>	<b>-120276,33</b>	<b>-180414,50</b>	<b>-146049,83</b>	<b>-111685,17</b>	<b>-77320,50</b>
<b>Correction of income tax for financial items</b>	<b>36082,90</b>	<b>54124,35</b>	<b>43814,95</b>	<b>33505,55</b>	<b>23196,15</b>
<b>Long-term debt, increase (+) / decrease (-)</b>	<b>3483333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>
<b>Equity, increase (+) / decrease (-)</b>	<b>1187500,00</b>				
<b>TOTAL CASH FLOW</b>	<b>163297,23</b>	<b>-27808,90</b>	<b>518167,96</b>	<b>107996,46</b>	<b>200717,44</b>
<b>CUMULATIVE TOTAL CASH FLOW</b>	<b>163297,23</b>	<b>135488,33</b>	<b>653656,29</b>	<b>761652,74</b>	<b>962370,18</b>

The matrix visualization settings of the example:

The image shows the 'Visualizations' and 'Data' panes in Power BI. The 'Visualizations' pane on the left shows a matrix visualization selected. The 'Data' pane on the right shows the data model settings for the matrix.

**Visualizations Pane:**

- Build visual:** Matrix icon selected.
- Rows:** Row type, Row name.
- Columns:** Financial year.
- Values:** Sum of Amount.
- Drill through:** Cross-report (On), Keep all filters (On).
- Filters:** Data type is (All), Table is Cash Flow.

**Data Pane:**

- Search:** Search bar.
- Data:**
  - Amount
  - Currency
  - Data type
  - Date
  - Figures
  - Financial year
  - Info
  - Info 2
  - Month
  - Project
  - Row code
  - Row name
  - Row name 2
  - Row name 3
  - Row sort
  - Row sort 2
  - Row sort 3
  - Row type
  - Row type sort
  - Scenario
  - Source.Name
  - Table
  - Table sort
  - Year

Alternative example of a matrix report in Power BI (Cash flow from example files):

Project					
All					
EUR	2021	2022	2023	2024	2025
<b>Income</b>					
Alpha Machine 37	2585206,15	9742982,14	11935153,12	14620562,57	17910189,15
Hospital property 37	639667,28	652460,63	665509,84	678820,03	692396,44
New flight route	1600000,00	1713680,00	1831347,20	1953115,62	2079102,23
Wind power plant 1 MW		669870,00	689966,10	710665,08	731985,04
<b>Variable costs</b>	<b>-2486048,31</b>	<b>-7491883,58</b>	<b>-9022340,07</b>	<b>-10923122,04</b>	<b>-13247428,72</b>
<b>Fixed costs</b>	<b>-1527000,00</b>	<b>-3231540,00</b>	<b>-3249070,80</b>	<b>-3319289,22</b>	<b>-3338629,81</b>
<b>Income tax</b>	<b>-85603,52</b>	<b>-176759,99</b>	<b>-545277,68</b>	<b>-658482,94</b>	<b>-970167,34</b>
<b>Change in working capital</b>	<b>-1166979,61</b>	<b>-203880,09</b>	<b>-271148,55</b>	<b>-329909,84</b>	<b>-401814,86</b>
<b>CASH FLOW FROM OPERATIONS</b>	<b>-440758,01</b>	<b>1674929,11</b>	<b>2034139,16</b>	<b>2732359,28</b>	<b>3455632,12</b>
<b>Asset investments and realizations</b>					
Alpha Machine 37	-2700000,00		-90000,00		-45000,00
Hospital property 37	-485000,00	-277000,00	-166000,00	-110500,00	-20000,00
New flight route	-4950000,00		148437,50		
Wind power plant 1 MW	-3610000,00				
<b>Extraordinary income &amp; expenses</b>			<b>451562,50</b>		
<b>FREE CASH FLOW (FCF)</b>	<b>-12185758,01</b>	<b>1397929,11</b>	<b>2378139,16</b>	<b>2621859,28</b>	<b>3390632,12</b>
<b>DISCOUNTED FREE CASH FLOW (DFCF)</b>	<b>-12037043,22</b>	<b>1179632,44</b>	<b>1824880,52</b>	<b>1871019,62</b>	<b>2230566,50</b>
<b>CUMULATIVE DISCOUNTED FREE CASH FLOW</b>	<b>-12037043,22</b>	<b>-10857410,77</b>	<b>-9032530,25</b>	<b>-7161510,64</b>	<b>-4930944,14</b>
<b>Financial income and expenses</b>	<b>-120276,33</b>	<b>-180414,50</b>	<b>-146049,83</b>	<b>-111685,17</b>	<b>-77320,50</b>
<b>Correction of income tax for financial items</b>	<b>36082,90</b>	<b>54124,35</b>	<b>43814,95</b>	<b>33505,55</b>	<b>23196,15</b>
<b>Long-term debt, increase (+) / decrease (-)</b>	<b>3483333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>	<b>-633333,33</b>
<b>Equity, increase (+) / decrease (-)</b>	<b>1187500,00</b>				
<b>TOTAL CASH FLOW</b>	<b>-7599118,11</b>	<b>638305,63</b>	<b>1642570,95</b>	<b>1910346,33</b>	<b>2703174,44</b>
<b>CUMULATIVE TOTAL CASH FLOW</b>	<b>-7599118,11</b>	<b>-6960812,48</b>	<b>-5318241,53</b>	<b>-3407895,20</b>	<b>-704720,77</b>



The matrix visualization settings of the alternative example:

### Visualizations >>

Build visual

Rows

Row type ▼ ✕

Project ▼ ✕

Columns

Financial year ▼ ✕

Values

Sum of Amount ▼ ✕

Drill through

Cross-report On ●

Keep all filters On ●

Data type ▼ ✕ 🔒  
is (All)

Table ▼ ✕ 🔒  
is Cash Flow

### Data >>

Search

▼ 📊 Data

- $\Sigma$  Amount
- Currency
- Data type
- Date
- $\Sigma$  Figures
- $\Sigma$  Financial year
- Info
- Info 2
- $\Sigma$  Month
- Project
- Row code
- Row name
- Row name 2
- Row name 3
- $\Sigma$  Row sort
- $\Sigma$  Row sort 2
- $\Sigma$  Row sort 3
- Row type
- $\Sigma$  Row type sort
- Scenario
- Source.Name
- Table
- $\Sigma$  Table sort
- $\Sigma$  Year

## Balance sheet data

Balance sheet data include data in the Balance sheet.

Table and Table sort fields can be used to filter Balance from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Balance	500	ASSETS	600000	C5650	Machinery and equipment	6040000
Balance	500	ASSETS	600000	C5650	Machinery and equipment	6040000
Balance	500	ASSETS	600000	C5650	Machinery and equipment	6040000

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for Balance include ASSETS and SHAREHOLDERS' EQUITY AND LIABILITIES.

Totals are not included for Balance sheet data.

Row code is an internal identifier used by Invest for Excel. It is included for reference. Row name is the row description and Row sort can be used to sort rows (when possible).

Row sort	Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	4 627 187,50
6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	4 108 437,50
6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	3 465 000,00

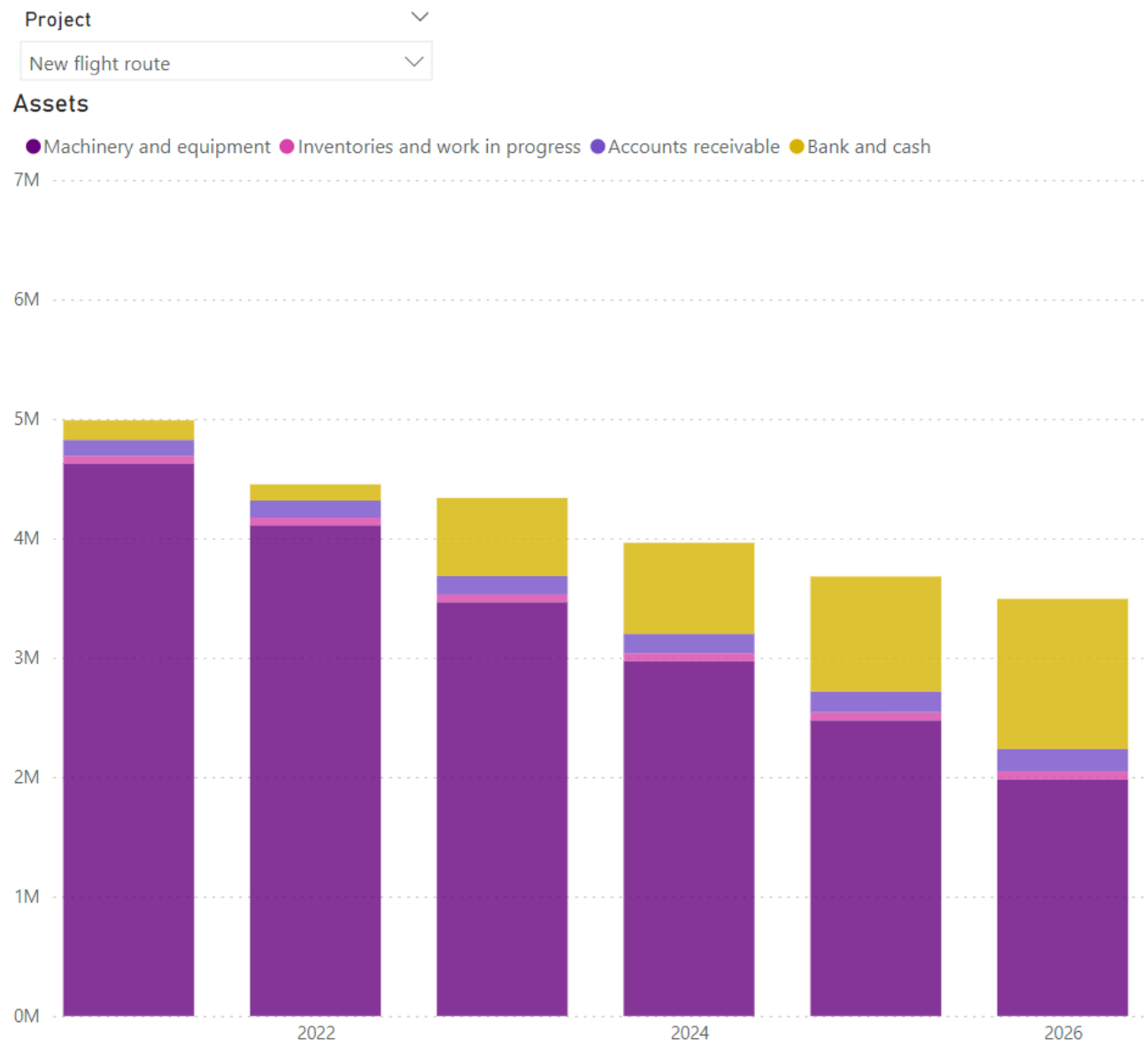
Row name 2 is first level header row text. Row sort 2 can be used to sort Row name 2 (when possible).

Row name 3 is second level header row text. Row sort 3 can be used to sort Row name 3 (when possible).

Data type holds info on what kind of data the row holds. Possible data types are Value and Residual Value.

The Amount field holds the amount for the row and period. Zero values are not included.

Example of a stacked column chart in Power BI (Balance from example file):



The stacked column chart visualization settings of the example:

The image shows the configuration interface for a stacked column chart in Power BI. It is divided into two main sections: 'Visualizations' and 'Data'.

**Visualizations Pane:**

- Build visual:** Shows the selected chart type (stacked column chart) and options to refresh or search for visuals.
- X-axis:** Set to 'Financial year'.
- Y-axis:** Set to 'Sum of Amount'.
- Legend:** Set to 'Row name'.
- Small multiples:** 'Add data fields here'.
- Tooltips:** 'Add data fields here'.
- Drill through:**
  - Cross-report: Off
  - Keep all filters: On
  - Row type: is ASSETS
  - Table: is Balance

**Data Pane:**

- Search:** Search bar for data fields.
- Data:** List of data fields with checkboxes:
  - Amount
  - Currency
  - Data type
  - Date
  - Figures
  - Financial year
  - Info
  - Info 2
  - Month
  - Project
  - Row code
  - Row name
  - Row name 2
  - Row name 3
  - Row sort
  - Row sort 2
  - Row sort 3
  - Row type
  - Row type sort
  - Scenario
  - Source.Name
  - Table
  - Table sort
  - Year

## Key financials

Key financials include data in the Key financials table.

Table and Table sort fields can be used to filter Key financials from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Key financials	600	Liquidity	1100	C8202	Current Ratio	7020000
Key financials	600	Liquidity	1100	C8202	Current Ratio	7020000
Key financials	600	Liquidity	1100	C8202	Current Ratio	7020000

Row type is used to group rows of different kind. Row type sort can be used to sort row types (when possible). Row types for Key financials include texts from rows that have no numeric data (i.e. headers) in the Key financials table.

Totals are not included for Key financials.

Row code is an internal identifier used by Invest for Excel. It is included for reference. Row name is the row description from a row with numeric data in the Key financials table and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Current Ratio		Current Ratio		Indicator	0,53
Current Ratio		Current Ratio		Indicator	0,51
Current Ratio		Current Ratio		Indicator	1,28

Row name 2 is a duplicate of Row name. Row sort 2 is not used.

Row name 3 is a duplicate of Row name 2. Row sort 3 is not used.

Data type holds info on what kind of data the row holds. Possible data types are Value and Residual Value.

The Amount field holds the amount for the row and period. Zero values are not included. If the number format is %, the amount is multiplied with 100.

## Example of a matrix report in Power BI (Key financials from example file):

Project										
New flight route										
Key financials	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
<b>Liquidity</b>										
Current Ratio	0,53	0,51	1,28	1,46	1,77	4,13	43,84	64,24	85,11	106,43
Quick Ratio	0,44	0,41	1,19	1,36	1,67	3,94	42,43	62,84	83,72	105,04
Absolute Liquidity Ratio	0,30	0,25	1,24	1,47	1,89	6,90				
Cash Ratio	0,24	0,20	0,96	1,12	1,41	3,43	38,60	58,88	79,63	100,83
<b>Turnover</b>										
Inventory Turnover Ratio	6,57	4,42	4,52	4,63	4,74	4,84	4,95	5,06	5,16	5,27
Receivables Turnover Ratio	24,00	12,41	12,40	12,39	12,37	12,36	12,36	12,35	12,34	12,33
Capital Turnover Ratio	1,27	1,26	0,98	0,91	0,84	0,75	0,67	0,61	0,55	0,50
Asset Turnover Ratio	0,64	0,36	0,42	0,47	0,54	0,62	0,65	0,62	0,56	0,51
Net Working Capital Ratio	10,50	10,57	10,64	10,70	10,75	10,80	10,85	10,90	10,94	10,98
<b>Profitability</b>										
GROSS MARGIN	83,14	83,52	83,86	84,17	84,46	84,72	84,97	85,19	85,40	85,60
EBITDA Margin	46,73	48,84	50,76	49,84	51,56	53,15	54,61	55,97	57,23	58,41
EBIT Margin	14,31	18,57	23,74	24,50	27,76	30,75	33,50	36,04	38,39	40,58
Earnings Margin	4,76	5,63	28,29	13,15	16,83	20,16	23,19	25,23	26,88	28,41
Return On Assets (ROA)	3,05	2,05	11,79	6,19	9,16	12,42	15,07	15,53	15,02	14,47
Return on net assets (RONA), %	4,61	7,03	22,41	14,09	19,83	28,00	40,42	61,33	103,31	228,08
Return On Capital Employed (ROCE)	5,31	8,44	11,88	14,58	19,25	21,73	21,40	20,83	20,17	19,46
Return On Average Capital Employed (ROACE)	10,63	7,88	11,70	13,79	18,38	22,19	23,11	22,47	21,70	20,88
Return On Investment (ROI)	1,60	2,29	12,65	6,90	10,18	13,72	15,65	15,28	14,69	14,10
Return On Equity (ROE)	12,04	7,36	32,00	12,79	15,14	16,45	16,98	16,54	15,86	15,16
<b>Business risk</b>										
Operating Leverage		1,15	1,14	1,02	1,07	1,06	1,05	1,04	1,03	1,03
Financial Leverage		0,95	2,69	0,71	1,07	1,04	1,03	1,01	1,00	1,00
Total Leverage		1,10	3,08	0,72	1,14	1,10	1,08	1,05	1,03	1,03
<b>Financial risk</b>										
Debt Ratio (Leverage)	0,71	0,65	0,52	0,41	0,27	0,10	0,01	0,01	0,01	
Debt-to-Equity Ratio (Net Gearing)	2,79	2,13	1,20	0,76	0,40	0,13	0,01	0,01	0,01	
Interest Coverage Ratio	1,90	1,76	2,98	4,28	7,46	15,81	91,40			
Debt Service Coverage Ratio	6,22	1,03	1,19	1,31	1,51	1,74	3,94			
<b>Stability</b>										
Fixed Asset Ratio	1,07	1,09	0,95	0,91	0,83	0,63	0,40	0,23	0,10	
Current Asset to Fixed Asset	0,08	0,08	0,25	0,33	0,49	0,76	1,51	3,39	9,21	
Proprietary Ratio (Equity Ratio)	0,25	0,31	0,43	0,54	0,68	0,84	0,93	0,94	0,95	0,96

The matrix visualization settings of the example:

The image shows the 'Visualizations' and 'Data' panes in Power BI. The 'Visualizations' pane on the left shows a matrix visualization selected. The 'Data' pane on the right shows the data model settings for the matrix.

**Visualizations Pane:**

- Build visual:** Matrix icon selected.
- Rows:** Row type, Row name.
- Columns:** Financial year.
- Values:** Sum of Amount.
- Drill through:** Cross-report (Off), Keep all filters (On).
- Table:** is Key financials.

**Data Pane:**

- Search:** Search bar.
- Data:**
  - $\Sigma$  Amount
  - Currency
  - Data type
  - Date
  - $\Sigma$  Figures
  - $\Sigma$  Financial year
  - Info
  - Info 2
  - $\Sigma$  Month
  - Project
  - Row code
  - Row name
  - Row name 2
  - Row name 3
  - $\Sigma$  Row sort
  - $\Sigma$  Row sort 2
  - $\Sigma$  Row sort 3
  - Row type
  - $\Sigma$  Row type sort
  - Scenario
  - Source.Name
  - Table
  - $\Sigma$  Table sort
  - $\Sigma$  Year

## Profitability indicators

Profitability indicators include data in the Profitability analysis (Result sheet).

Table and Table sort fields can be used to filter Profitability indicators from other type of data.

Table	Table sort	Row type	Row type sort	Row code	Row name	Row sort
Profitability	900	To Firm	100	C120	Nominal value of all investments	9010000
Profitability	900	To Firm	100	C130	Required rate of return, %	9020000
Profitability	900	To Firm	100	C140	Calculation term	9030000

Row type is To Firm or To Equity. Totals are not included for Key financials.

Row code is an internal identifier used by Invest for Excel. It is included for reference. Row name is the row description in the Profitability analysis and Row sort can be used to sort rows (when possible).

Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Nominal value of all investments		Nominal value of all investments		Value	4 950 000,00
Required rate of return, %		Required rate of return, %		Rate of return	10,16
Calculation term		Calculation term		Years	10,00

Row name 2 is a duplicate of Row name. Row sort 2 is not used.

Row name 3 is a duplicate of Row name 2. Row sort 3 is not used.

Data type holds info on what kind of data the row holds. Possible data types are Rate of return, Present value, Annuity, Index, Years, Value Added and Value.

The Amount field holds the amount for the row. Zero values are not included. Return-% amounts are multiplied with 100.



Example of a matrix report in Power BI (Profitability indicators from example file):



Project



New flight route



Profitability

2021

Profitability	2021
Nominal value of all investments	4950000,00
Required rate of return, %	10,16
Calculation term	10,00
PV of operative cash flow	5676949,90
PV of residual value	452742,12
Present value of business cash flows	6129692,02
Investment proposal	-4950000,00
Net Present Value (NPV)	1179692,02
Internal Rate of Return (IRR), %	14,59
Modified Internal Rate of Return (MIRR), %	12,54
Profitability Index (PI)	1,24
Payback time, years	8,51

The matrix visualization settings of the example:

The image shows the Power BI visualization settings pane for a matrix. It is divided into three main sections: Filters, Visualizations, and Data.

- Filters:**
  - Search: Search
  - Filters on this visual: Financial year is (All)
  - Profitability** is not Total Present Va...
  - Filter type: Basic filtering
  - Select all:
  - Nominal value of all ... 1:
  - Required rate of retu... 1:
  - Calculation term 1:
  - PV of operative cash... 1:
  - PV of residual value 1:
  - Present value of busi... 1:
  - Require single selection:
  - Sum of Amount is (All)
  - Table** is Profitability
  - Add data fields here
- Visualizations:**
  - Build visual: Matrix icon selected
  - Rows: Profitability
  - Columns: Financial year
  - Values: Sum of Amount
  - Drill through:
    - Cross-report: Off
    - Keep all filters: On
  - Add drill-through fields here
- Data:**
  - Search: Search
  - Data:
    - Amount
    - Currency
    - Data type
    - Date
    - Figures
    - Financial year
    - Info
    - Info 2
    - Month
    - Project
    - Row code
    - Row name
    - Row name 2
    - Row name 3
    - Row sort
    - Row sort 2
    - Row sort 3
    - Row type
    - Row type sort
    - Scenario
    - Source.Name
    - Table
    - Table sort
    - Year

Alternative example of a matrix report in Power BI (Profitability indicators from example files):

Row name	Alpha Machine 37	Hospital property 37	Wind power plant 1 MW
Nominal value of all investments	2835000,00	1358500,00	3610000,00
Required rate of return, %	8,75	7,75	11,75
Calculation term	5,33	20,00	15,50
PV of operative cash flow	3602421,97	1249833,98	4365523,18
PV of residual value	1993831,83	67894,39	15090,15
Present value of business cash flows	5596253,79	1317728,37	4380613,34
Total Present Value (PV)	5596253,79	1317728,37	4380613,34
Proposed investments in assets	-2770983,78	-1069199,20	-3453954,25
Investment proposal	-2770983,78	-1069199,20	-3453954,25
Net Present Value (NPV)	2825270,01	248529,18	926659,08
NPV as a monthly annuity	54944,96	2000,25	10494,17
Internal Rate of Return (IRR), %	24,33	11,20	15,98
Modified Internal Rate of Return (MIRR), %	20,97	9,53	13,48
Profitability Index (PI)	2,02	1,23	1,27
Payback time, years	4,83	14,80	10,57
Return on net assets (RONA), %	41,87	22,67	52,47

The matrix visualization settings of the example:

The screenshot displays the Power BI interface for configuring a matrix visualization. On the left, the 'Visualizations' pane shows the 'Build visual' section with a matrix icon selected. Below this, the 'Rows' property is set to 'Row name', the 'Columns' property is set to 'Project', and the 'Values' property is set to 'Sum of Amount'. The 'Drill through' section shows 'Cross-report' turned off and 'Keep all filters' turned on. The 'Table' is named 'is Profitability'. On the right, the 'Data' pane shows a search bar and a list of fields. The 'Project' field is checked under the 'Data' category, and 'Row name' is checked under the 'Rows' category. Other fields like 'Amount', 'Currency', 'Date', 'Figures', 'Financial year', 'Info', 'Info 2', 'Month', 'Row code', 'Row name 2', 'Row name 3', 'Row sort', 'Row sort 2', 'Row sort 3', 'Row type', 'Row type sort', 'Scenario', 'Source.Name', 'Table', 'Table sort', and 'Year' are unchecked.

## Periods

Periods

Include historical periods

Include residual values

Include first historical period change (cash flow)

If the calculation file includes historical periods, you can choose to include them.

If the calculation file includes a residual column, you can choose to include its values. Note that any other residual values (perpetuity etc.) are not included.

When you extract historical data in a cash flow table, you can choose to include numbers in the first historical period. This is an option because the change in the first period is rarely a real change in cash.

## Options

Options

Include beginning balance cash

Include summable specification rows

Include totals       Totals in upper case

Data figures       ▼

Meta data language       ▼

Scenario       ▼

If the calculation includes historical periods, you can choose to **include beginning balance cash** in Cash flow data so that cumulative total cash flow equals Cash and bank in the balance sheet.

You can choose to **include summable specification rows** if available. For specification rows to be summable, operators \* and / must not be used.

Example of summable specification rows:

	Income		14 209	21 888	31 854	36 529
+	Europe		14 209	14 132	16 576	17 580
+	Business area 1	5,00 %	14 209	12 898	14 637	15 556
+	Business area 2	5,00 %		1 234	1 283	1 335
+	Business area 3	5,00 %			656	689

Included in data:

Row name	Row sort	Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Income	210000	Europe		Business area 1		Value	14 209,00
Income	210000	Europe		Business area 1		Value	12 898,00
Income	210000	Europe		Business area 1		Value	14 637,00
Income	210000	Europe		Business area 1		Value	15 556,00
Income	210000	Europe		Business area 2		Value	1 234,00
Income	210000	Europe		Business area 2		Value	1 283,00
Income	210000	Europe		Business area 2		Value	1 335,00
Income	210000	Europe		Business area 3		Value	656,00
Income	210000	Europe		Business area 3		Value	689,00

Example of non-summable specification rows (operator \* is used):

☰	Passenger traffic			1 400 000	1 513 680	1 631 347	1 753 116
+	Number of passengers			5 000	5 300	5 600	5 900
+	Number of passengers			5 000	5 300	5 600	5 900
	Increase			5 000	300	300	300
	Capacity				8 320	8 320	8 320
	Cabin factor %				64 %	67 %	71 %
*	Average ticket price	2,00 %		280	286	291	297

Included in data:

Row name	Row sort	Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
Passenger traffic	210000	Passenger traffic		Passenger traffic		Value	1 400 000,00
Passenger traffic	210000	Passenger traffic		Passenger traffic		Value	1 513 680,00
Passenger traffic	210000	Passenger traffic		Passenger traffic		Value	1 631 347,20
Passenger traffic	210000	Passenger traffic		Passenger traffic		Value	1 753 115,62

You can **include totals** (where relevant) and choose to make the **totals upper case**.

Income matrix with totals in upper case:

EUR	2021	2022	2023	2024	2025
<b>Income</b>					
Passenger traffic	1400000,00	1513680,00	1631347,20	1753115,62	1879102,23
Mail service revenue	200000,00	200000,00	200000,00	200000,00	200000,00
<b>INCOME TOTAL</b>	<b>1600000,00</b>	<b>1713680,00</b>	<b>1831347,20</b>	<b>1953115,62</b>	<b>2079102,23</b>
<b>Variable costs</b>					
Fuel costs	-194760,00	-201409,20	-208246,46	-215276,65	-222504,75
Handling costs	-75000,00	-81090,00	-87393,60	-93916,91	-100666,19
<b>GROSS MARGIN</b>	<b>1330240,00</b>	<b>1431180,80</b>	<b>1535707,14</b>	<b>1643922,05</b>	<b>1755931,28</b>
<b>Fixed costs</b>					
Staff costs	-250000,00	-255000,00	-260100,00	-265302,00	-270608,04
Maintenance costs	-332500,00	-339150,00	-345933,00	-352851,66	-359908,69
Rents				-52310,00	-53356,20
<b>EBITDA; OPERATING INCOME BEFORE DEPRECIATION</b>	<b>747740,00</b>	<b>837030,80</b>	<b>929674,14</b>	<b>973458,39</b>	<b>1072058,35</b>
<b>Depreciation</b>	<b>-518750,00</b>	<b>-518750,00</b>	<b>-495000,00</b>	<b>-495000,00</b>	<b>-495000,00</b>
<b>EBIT; OPERATING INCOME</b>	<b>228990,00</b>	<b>318280,80</b>	<b>434674,14</b>	<b>478458,39</b>	<b>577058,35</b>
<b>Financing income and expenses</b>	<b>-120276,33</b>	<b>-180414,50</b>	<b>-146049,83</b>	<b>-111685,17</b>	<b>-77320,50</b>
<b>Extraordinary income &amp; expenses</b>			<b>451562,50</b>		
<b>Income tax</b>	<b>-32614,10</b>	<b>-41359,89</b>	<b>-222056,04</b>	<b>-110031,97</b>	<b>-149921,36</b>
<b>NET INCOME FOR THE PERIOD</b>	<b>76099,57</b>	<b>96506,41</b>	<b>518130,76</b>	<b>256741,26</b>	<b>349816,50</b>

Income matrix without totals:

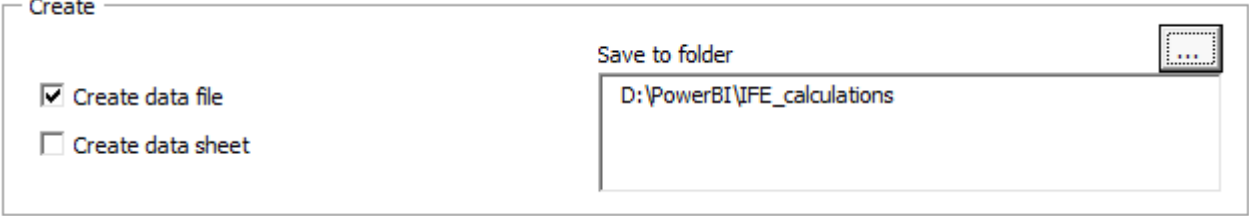
EUR	2021	2022	2023	2024	2025
<b>Income</b>	<b>1600000,00</b>	<b>1713680,00</b>	<b>1831347,20</b>	<b>1953115,62</b>	<b>2079102,23</b>
Passenger traffic	1400000,00	1513680,00	1631347,20	1753115,62	1879102,23
Mail service revenue	200000,00	200000,00	200000,00	200000,00	200000,00
<b>Variable costs</b>	<b>-269760,00</b>	<b>-282499,20</b>	<b>-295640,06</b>	<b>-309193,56</b>	<b>-323170,95</b>
Fuel costs	-194760,00	-201409,20	-208246,46	-215276,65	-222504,75
Handling costs	-75000,00	-81090,00	-87393,60	-93916,91	-100666,19
<b>Fixed costs</b>	<b>-582500,00</b>	<b>-594150,00</b>	<b>-606033,00</b>	<b>-670463,66</b>	<b>-683872,93</b>
Staff costs	-250000,00	-255000,00	-260100,00	-265302,00	-270608,04
Maintenance costs	-332500,00	-339150,00	-345933,00	-352851,66	-359908,69
Rents				-52310,00	-53356,20
<b>Depreciation</b>	<b>-518750,00</b>	<b>-518750,00</b>	<b>-495000,00</b>	<b>-495000,00</b>	<b>-495000,00</b>
<b>Financing income and expenses</b>	<b>-120276,33</b>	<b>-180414,50</b>	<b>-146049,83</b>	<b>-111685,17</b>	<b>-77320,50</b>
<b>Extraordinary income &amp; expenses</b>			<b>451562,50</b>		
<b>Income tax</b>	<b>-32614,10</b>	<b>-41359,89</b>	<b>-222056,04</b>	<b>-110031,97</b>	<b>-149921,36</b>
<b>Total</b>	<b>76099,57</b>	<b>96506,41</b>	<b>518130,76</b>	<b>256741,26</b>	<b>349816,50</b>

For **data figures** you can choose between 1, 1000 and 1000000. Any currency translation must be done separately.

You can choose a **meta data language** separate from the calculation file language. Meta data is headers etc. Note that if you use multiple data files as source for a Power BI report, they should all have the same meta data language.

You can use a **scenario** setting to separate different versions of the same calculation. The default scenarios are Base case, Worst case and Best case but you can also write your own scenario.

## Create



Create

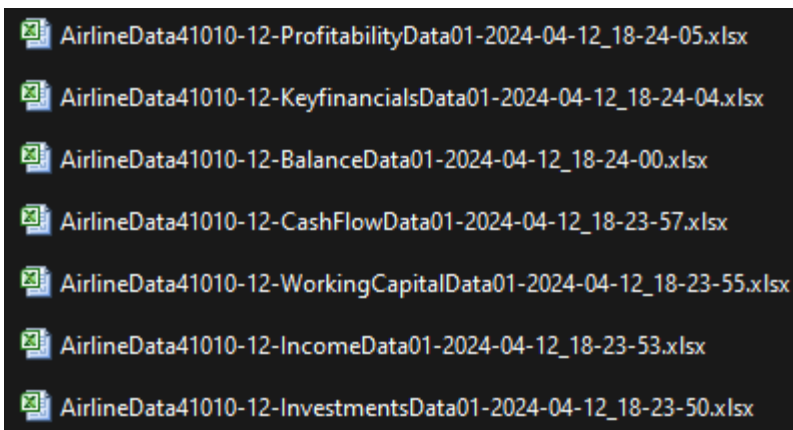
Create data file

Create data sheet

Save to folder

D:\PowerBI\IFE\_calculations

You can choose to **create data file(s)** and specify to which folder you want to save it. Each type of data is written to its own file. The data files are written in xlsx file format and name includes calculation file name, type of data and date stamp.



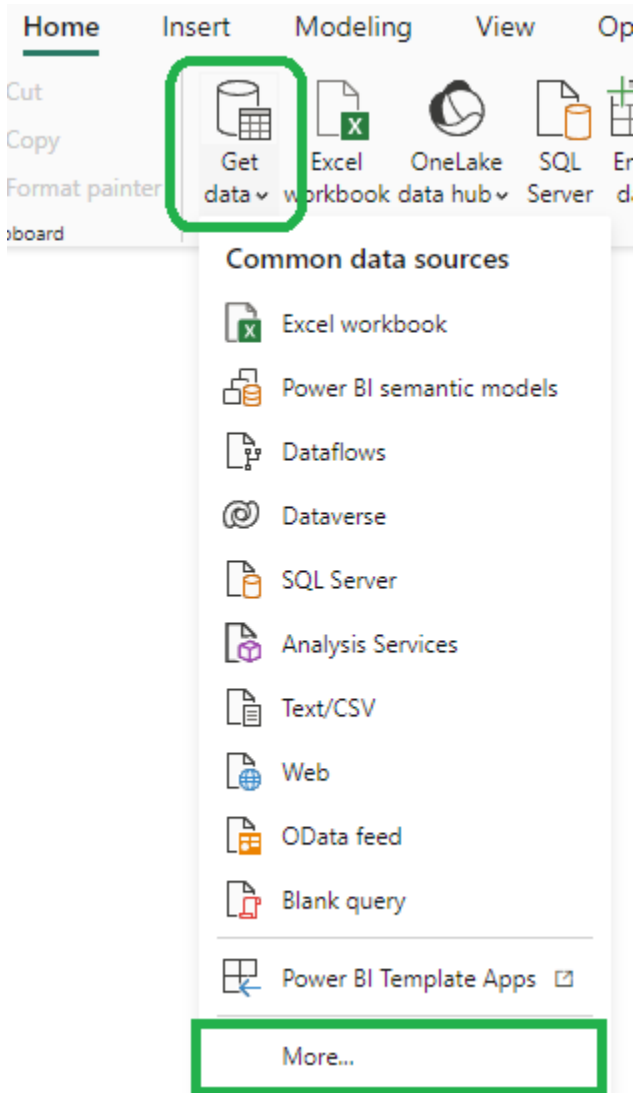
Note that the folder must exist, it won't be created. If the folder does not exist, the data files are written to Excel's current folder.

You can also **create a data sheet** in the calculation file. This is useful if you want to use the data in Excel or if you want to edit the data before writing it to a data file. Each type of data is written to its own sheet.

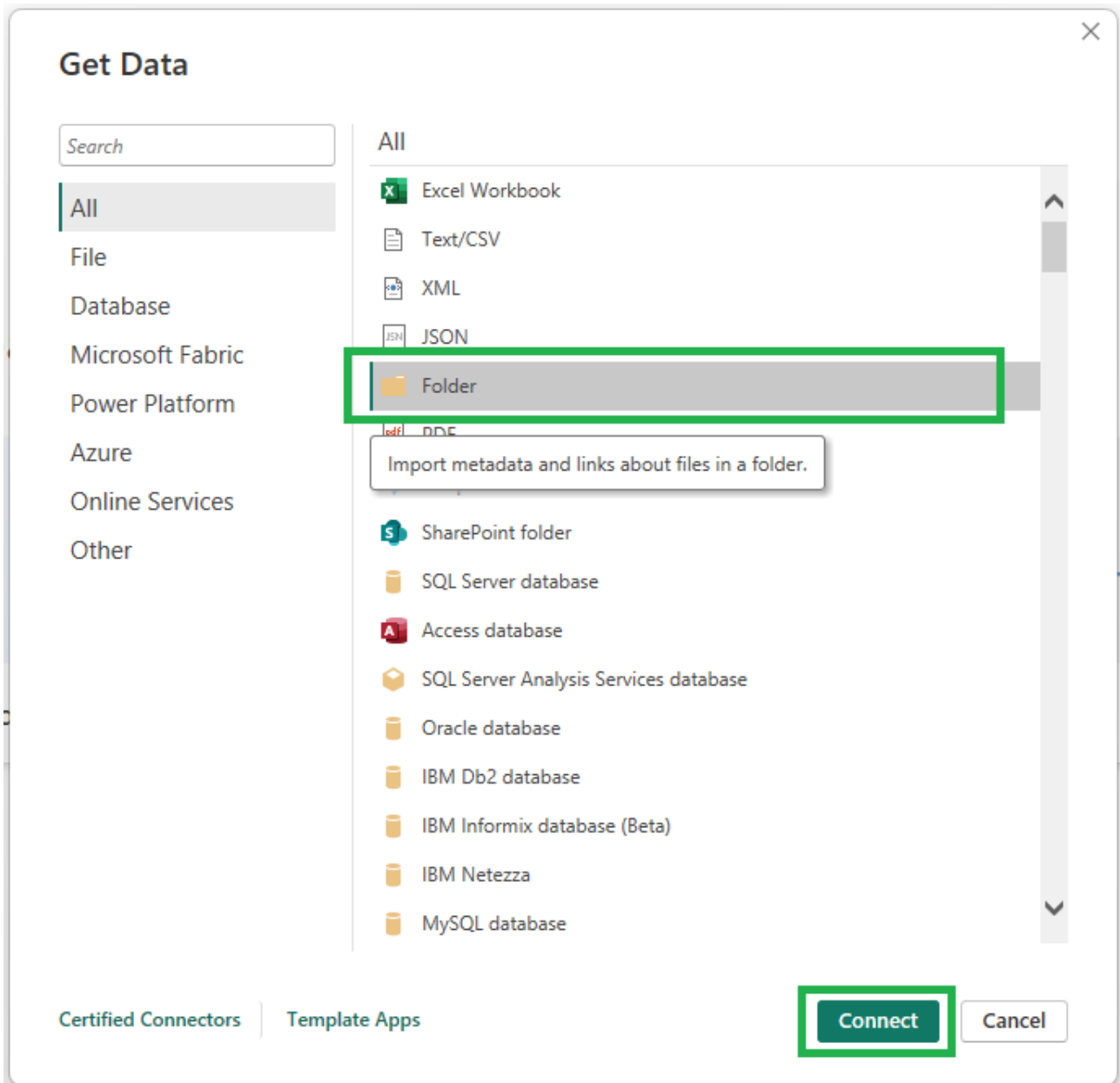
## Using data files in Power BI Desktop

The best way to use the data in Power BI is to connect to the folder in which the data files reside.

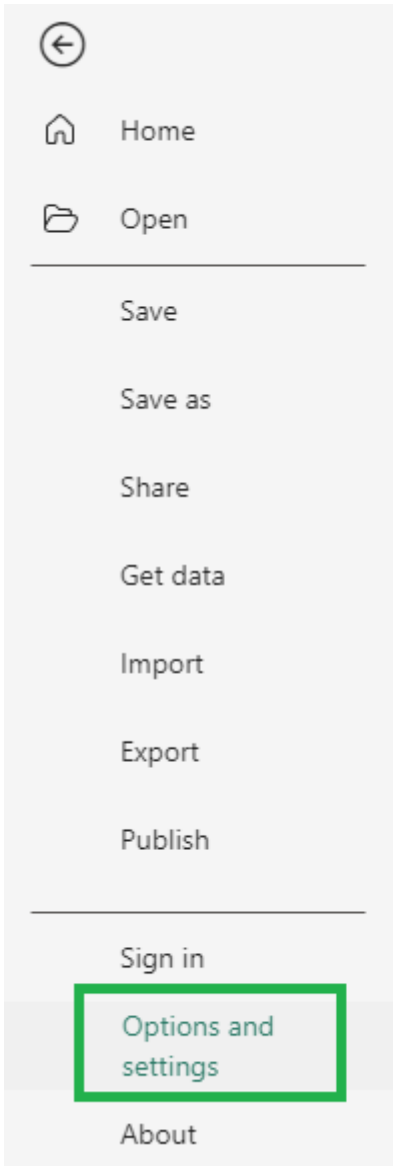
In a new empty Power BI report:









To connect an existing Power BI report to a new folder, choose **File – Options and settings – Data source settings – Change source**.



## Options and settings

 Options

 Data source settings

### Data source settings

Manage settings for data sources that you have connected to using Power BI Desktop.

Data sources in current file     Global permissions

Search data source settings A Z ↓

- d:\invest\ver400\powerbi\data41010-12

**Change Source...**    Export PBIDS    Edit Permissions...    Clear Permissions ▾

**Close**

### Folder

Folder path

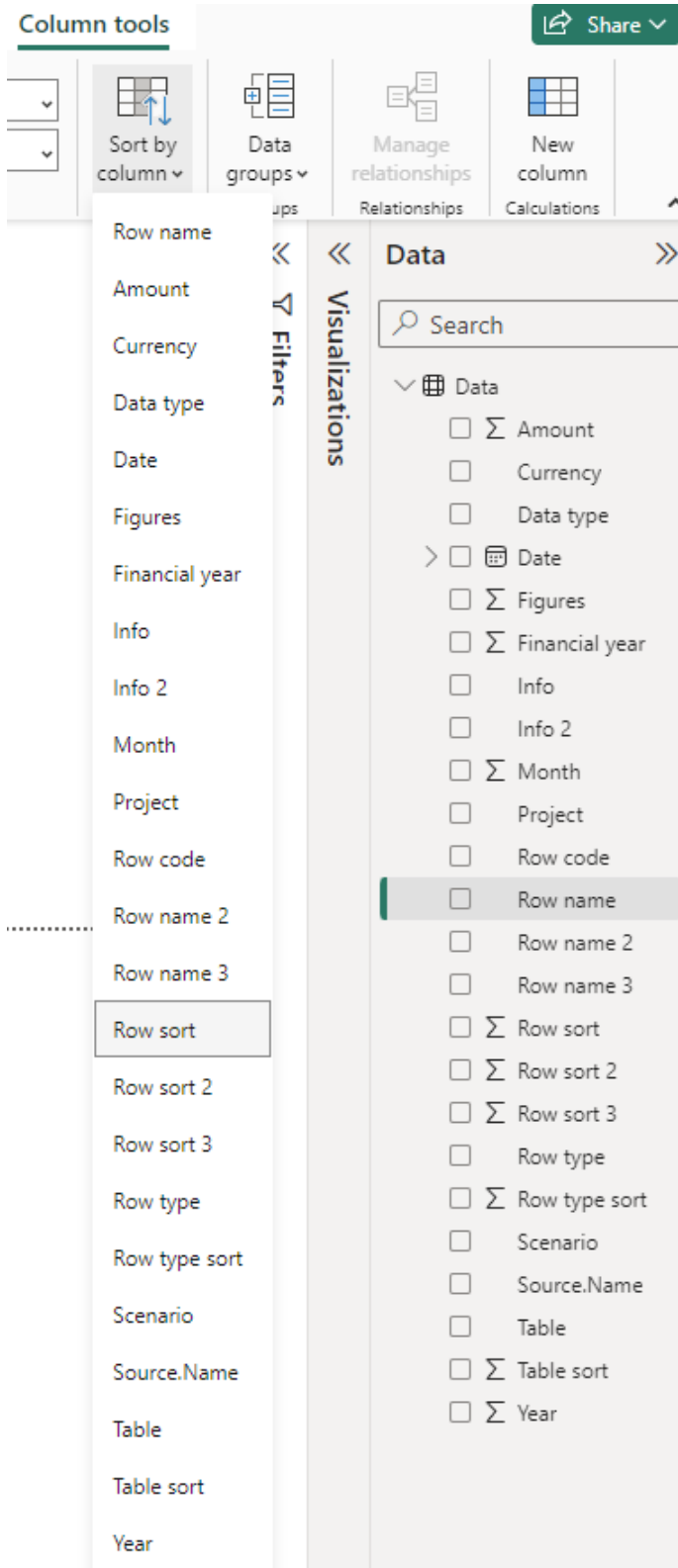
D:\PowerBI\IFereports Browse...

**OK**    Cancel

## Sorting in Power BI

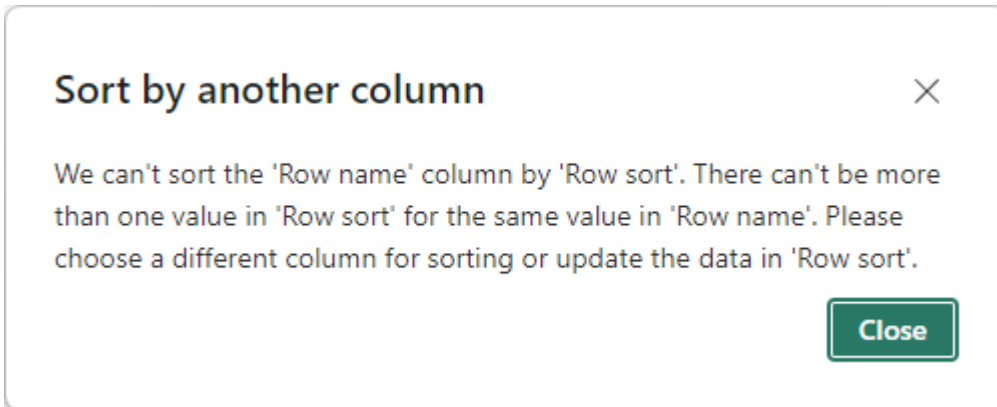
The intended use of the sort fields are as follows:

Row name – Row sort (*also Row code – Row sort*):



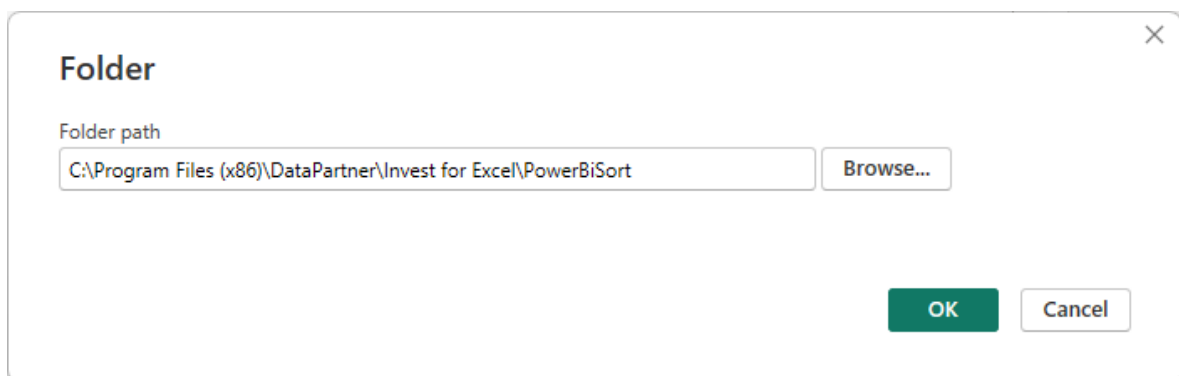
Row name 2 – Row sort 2  
Row name 3 – Row sort 3  
Row type – Row type sort  
Table – Table sort

Note that sorting of a field may not be successful if there are multiple values of either field for one value in the other field. This will result in a message like this:



What you can do when this happens is to

1. Temporarily connect to the PowerBiSort folder under the Invest for Excel's program folder (default path: C:\Program Files (x86)\DataPartner\Invest for Excel\PowerBiSort) **File – Options and settings – Data source settings – Change source**



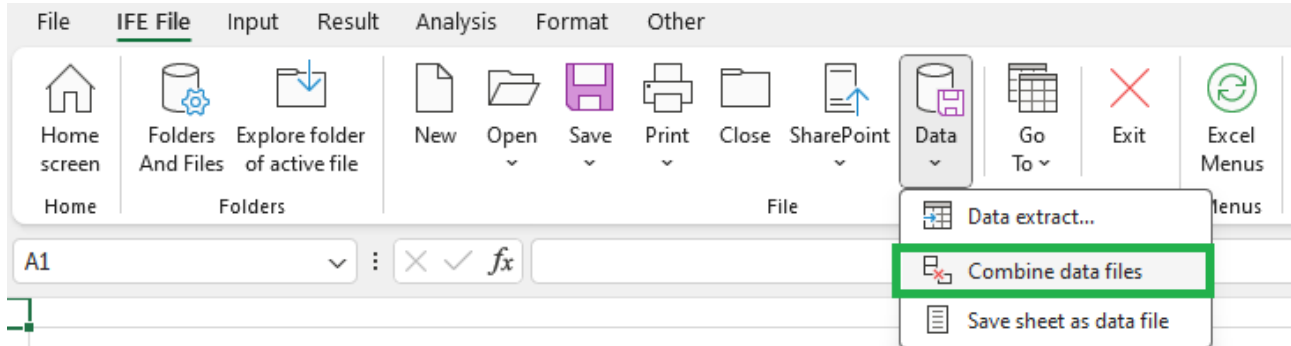
This folder holds the PowerBiSortFile.xlsx data file with data that can be sorted.

2. Sort the fields you want to sort.
3. Connect back to your data folder.

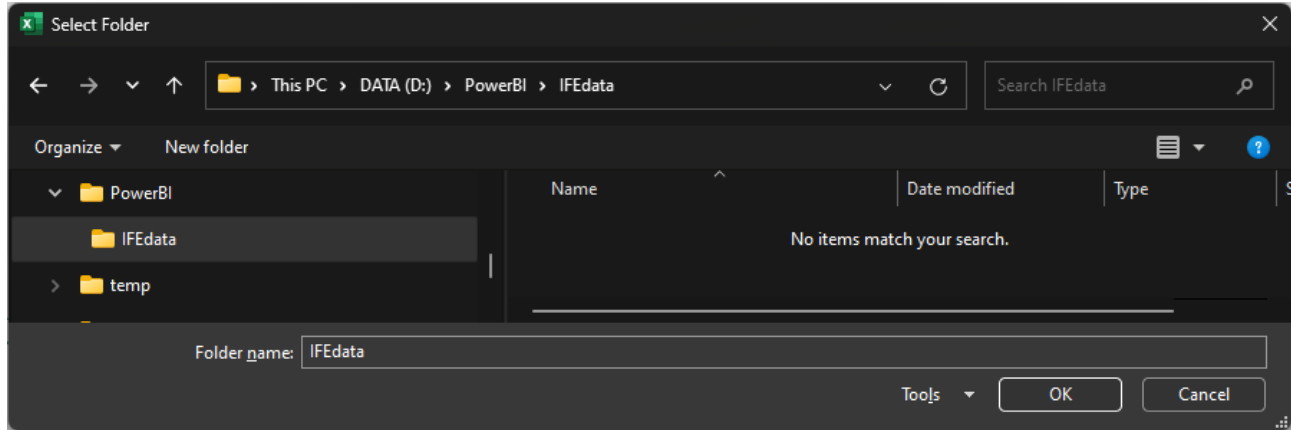
The sorting will now work whenever possible.

## Combine data files

Combine data files will combine all data files in a folder to one big data file. Choose IFE File – Data – Combine data files from the menu.



Select a folder and press OK:



The resulting file is a new workbook open in Excel.

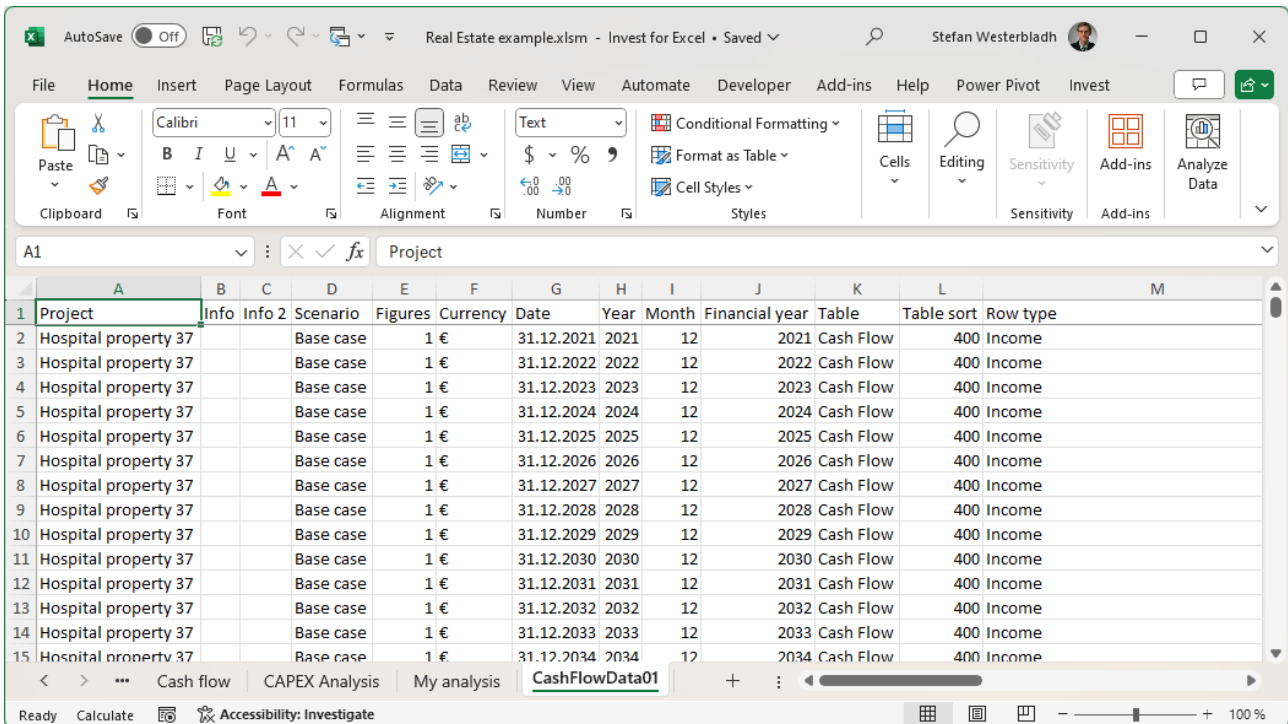
Project	Info	2	Scenario	Figures	Currency	Date	Year	Month	Financial year	Table	Table sort	Row type	Row code	Row name	Row sort	Row name 2	Row sort 2	Row name 3	Row sort 3	Data type	Amount
1	New flight route	Base case	1	EUR	31.12.2021	2021	12	2021	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	4 627 187,50	
2	New flight route	Base case	1	EUR	31.12.2022	2022	12	2022	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	4 108 437,50	
3	New flight route	Base case	1	EUR	31.12.2023	2023	12	2023	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	3 465 000,00	
4	New flight route	Base case	1	EUR	31.12.2024	2024	12	2024	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	2 970 000,00	
5	New flight route	Base case	1	EUR	31.12.2025	2025	12	2025	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	2 475 000,00	
6	New flight route	Base case	1	EUR	31.12.2026	2026	12	2026	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	1 980 000,00	
7	New flight route	Base case	1	EUR	31.12.2027	2027	12	2027	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	1 485 000,00	
8	New flight route	Base case	1	EUR	31.12.2028	2028	12	2028	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	990 000,00	
9	New flight route	Base case	1	EUR	31.12.2029	2029	12	2029	Balance	500 ASSETS	600000	C5650	Machinery and equipment	6040000	Fixed assets and other non-current assets	6000000	Tangible assets	6010000	Value	485 000,00	
10	New flight route	Base case	1	EUR	31.12.2021	2021	12	2021	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	62 990,67	
11	New flight route	Base case	1	EUR	31.12.2022	2022	12	2022	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	64 337,50	
12	New flight route	Base case	1	EUR	31.12.2023	2023	12	2023	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	65 733,97	
13	New flight route	Base case	1	EUR	31.12.2024	2024	12	2024	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	67 180,48	
14	New flight route	Base case	1	EUR	31.12.2025	2025	12	2025	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	68 627,74	
15	New flight route	Base case	1	EUR	31.12.2026	2026	12	2026	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	70 126,43	
16	New flight route	Base case	1	EUR	31.12.2027	2027	12	2027	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	71 647,20	
17	New flight route	Base case	1	EUR	31.12.2028	2028	12	2028	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	73 200,76	
18	New flight route	Base case	1	EUR	31.12.2029	2029	12	2029	Balance	500 ASSETS	600000	C5800	Inventories and work in progress	6130000	Current Assets	6020000	Inventories and work in progress	6030000	Value	74 787,80	
19	New flight route	Base case	1	EUR	31.12.2021	2021	12	2021	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	133 333,33	
20	New flight route	Base case	1	EUR	31.12.2022	2022	12	2022	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	142 806,67	
21	New flight route	Base case	1	EUR	31.12.2023	2023	12	2023	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	152 612,27	
22	New flight route	Base case	1	EUR	31.12.2024	2024	12	2024	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	162 798,63	
23	New flight route	Base case	1	EUR	31.12.2025	2025	12	2025	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	173 256,52	
24	New flight route	Base case	1	EUR	31.12.2026	2026	12	2026	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	184 118,92	
25	New flight route	Base case	1	EUR	31.12.2027	2027	12	2027	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	195 351,10	
26	New flight route	Base case	1	EUR	31.12.2028	2028	12	2028	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	206 965,59	
27	New flight route	Base case	1	EUR	31.12.2029	2029	12	2029	Balance	500 ASSETS	600000	C5950	Accounts receivable	6140000	Current Assets	6020000	Accounts receivable	6040000	Value	218 973,19	
28	New flight route	Base case	1	EUR	31.12.2021	2021	12	2021	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	163 297,23	
29	New flight route	Base case	1	EUR	31.12.2022	2022	12	2022	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	135 488,33	
30	New flight route	Base case	1	EUR	31.12.2023	2023	12	2023	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	653 656,29	
31	New flight route	Base case	1	EUR	31.12.2024	2024	12	2024	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	761 627,74	
32	New flight route	Base case	1	EUR	31.12.2025	2025	12	2025	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	962 370,18	
33	New flight route	Base case	1	EUR	31.12.2026	2026	12	2026	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	1 258 342,83	
34	New flight route	Base case	1	EUR	31.12.2027	2027	12	2027	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	1 968 845,49	
35	New flight route	Base case	1	EUR	31.12.2028	2028	12	2028	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	3 078 329,67	
36	New flight route	Base case	1	EUR	31.12.2029	2029	12	2029	Balance	500 ASSETS	600000	C6110	Bank and cash	6180000	Current Assets	6020000	Bank and cash	6080000	Value	4 267 449,71	

This function is useful if you want to edit the data, or you want to have one data file/sheet to use.

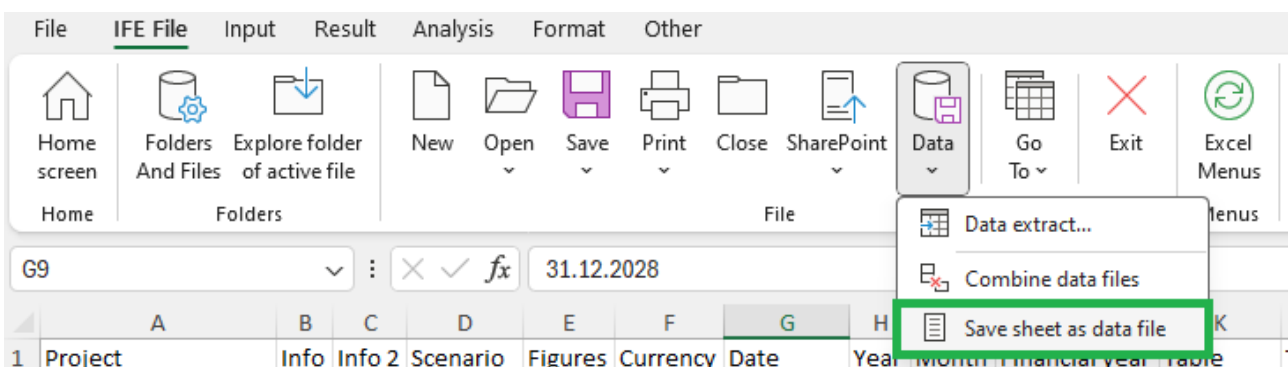
## Save Sheet As Data File

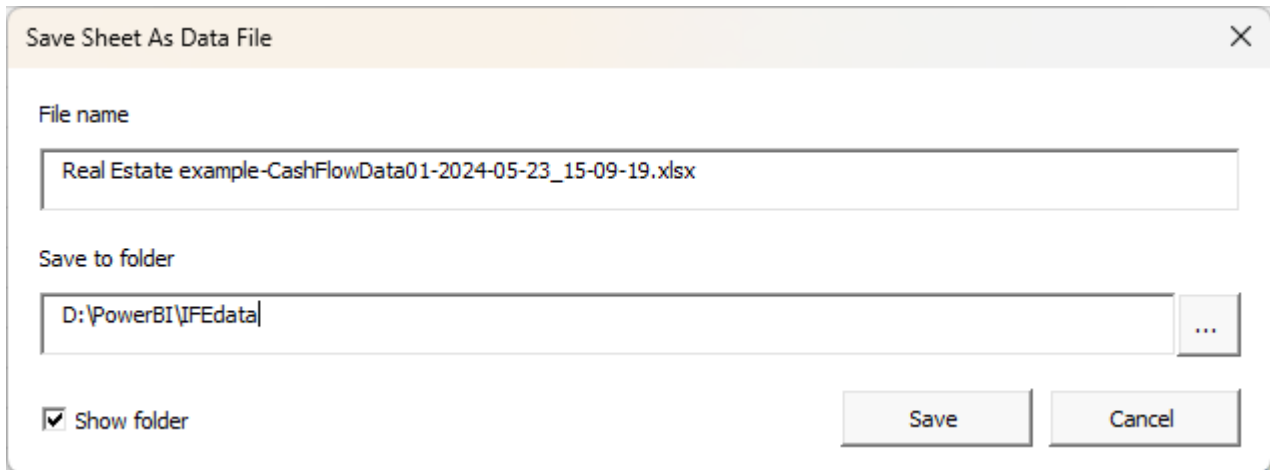
You can use the **Save Sheet As Data File** function to write a data sheet to a data file. This is useful if you want to edit data in a sheet before writing to data file.

Activate the data sheet you want to save.



Choose **Save Sheet As Data File** from the IFE File - Data menu.





The file name includes calculation file name, type of data and date stamp by default but can be changed. Select the folder where you want to save the file. The data file is written in xlsx file format. If the Show folder options is clicked, the folder where the file is saved is shown when ready.

## Data functions in Excel menu

When Excel menus are shown, the data functions are found in a Data group after the File group in the Invest menu.

