Digital and artificial intelligence

Power BI and Automated Dashboards

Two days to build dashboards that update themselves from your Excel files, exports from management software or databases. Participants learn to import and clean data with Power Query, build a reliable model, write the essential DAX measures and publish a report that management can read, using their own indicators.

Duration : 2 days

Objectives

1. Import and prepare data from multiple sources with Power Query
2. Build a star-schema data model: fact tables, dimensions, relationships, date table
3. Write the common DAX measures: totals, ratios, running totals, comparison with the previous period
4. Design readable report pages: choice of visuals, filters, navigation
5. Publish a report, schedule its refresh and manage access rights

Programme

Day 1 — morning

• From spreadsheet to dashboard: Power BI Desktop and the online service
• Define the indicator before the visual: question, formula, source, frequency, owner
• Power Query: connecting to Excel files, CSV, folders and databases
• Cleaning: data types, columns, merging and appending queries, unpivoting

Day 1 — afternoon

• Data model: fact and dimension tables, relationships, cardinality
• Date table and hierarchies
• Calculated columns and measures: when to use which
• Exercise: the data model for your own indicators

Day 2 — morning

• Essential DAX: SUM, DIVIDE, CALCULATE, row context and filter context
• Time intelligence: year to date, comparison with the previous year, moving averages
• Visuals: cards, line charts, column charts, matrices, conditional formatting
• Slicers, filters, tooltips and navigation between pages

Day 2 — afternoon (workshop)

• Workshop: a dashboard of your quality, production, safety or sales indicators
• Publishing, workspaces, sharing and row-level security
• Scheduled refresh and gateway for internal sources
• Practical test and debrief

Teaching methods

• Hands-on work with Power BI Desktop installed beforehand
• Exercises on your data exports, anonymised if necessary
• Step-by-step construction of a single dashboard across the two days
• DAX and Power Query cheat sheets handed to participants
• Practical test building a report at the end of the session

Assessment and documents

Practical test building a report and knowledge test at the end of the session, end-of-course survey the next day. Numbered certificate, verifiable online, for each participant; training report and the dashboard built in the workshop handed to the company.

Bilingual materials for every participant; each classroom course comes with its digital twin on OmniLearn.

Good to know

Good command of Excel is needed: participants who do not yet work with structured tables and pivot tables will benefit from taking “Advanced Excel and Automation” first.

Practical information

Duration	2 days
Audience	Management controllers, QSE and production managers, analysts, heads of department who track indicators
Prerequisites	Everyday use of Excel: formulas, filters, pivot tables
Group size	Groups of 6 to 12 participants, in-company
Format	In-company, face to face on your site
Language	French, Darija or English; bilingual materials
Funding	OFPPT special training contracts (TFP), GIAC, Maroc PME: we prepare the applications with you, at no extra cost.
Programme customisation	Programme adapted to your procedures, your equipment and your audience

Frequently asked questions

Which licences should we plan for?

Power BI Desktop is installed on each computer to build reports. Publishing and sharing in the online service depend on your organisation’s licences: we check them with your IT department before the session.

Do I need to know the DAX language?

No. Measures are introduced step by step, starting from the participants’ own indicators. The aim is to master the dozen or so functions that cover most management dashboards.

Can we work on our own data?

Yes, it is recommended. Send us one or two representative exports in advance, anonymised if needed; the second-day workshop produces a dashboard you can use in your department.

How does it differ from “Advanced Excel and Automation”?

Excel remains the everyday tool for calculation and processing. Power BI is used to link several sources, model the data and distribute interactive dashboards that update without intervention.