

Club Power BI

La communauté Power BI francophone



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Merci à notre hôte

mobiskill

Les news communautaires

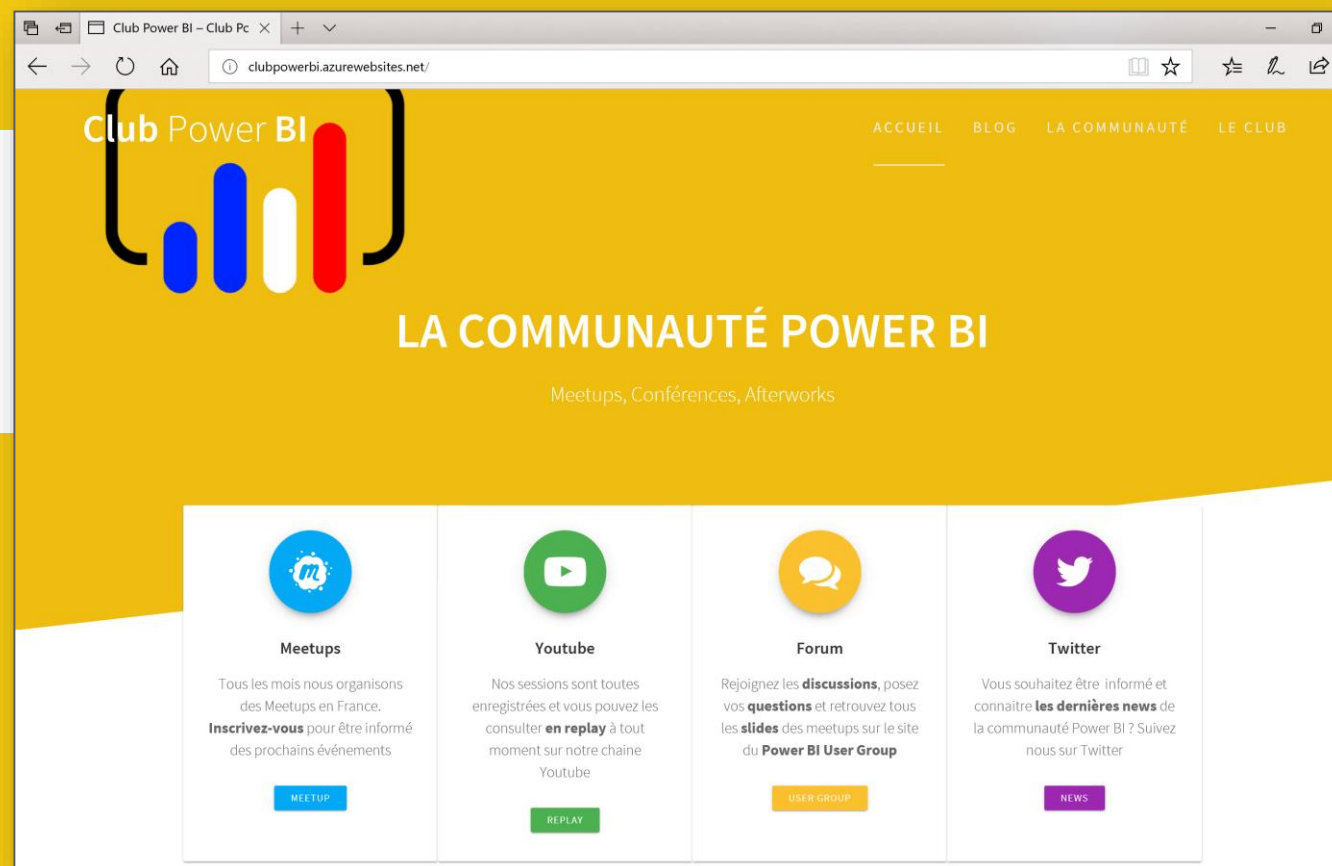
Jean-Pierre Riehl – Couvreur-Zingueur





Club Power BI

<http://clubpowerbi.com>



Sondage

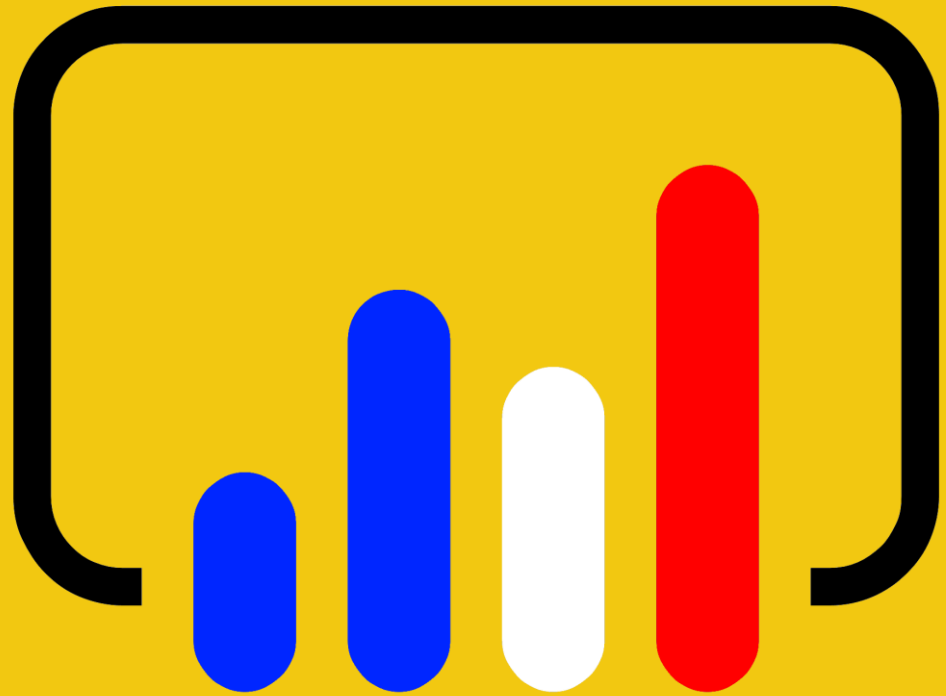


Afin de mieux connaître votre utilisation de Power BI et de vous proposer du meilleur contenu en 2019, Le Club vous sollicite pour répondre à ce court sondage disponible ici:

[Bit.ly/sondageclubpowerbi2019](https://bit.ly/sondageclubpowerbi2019)

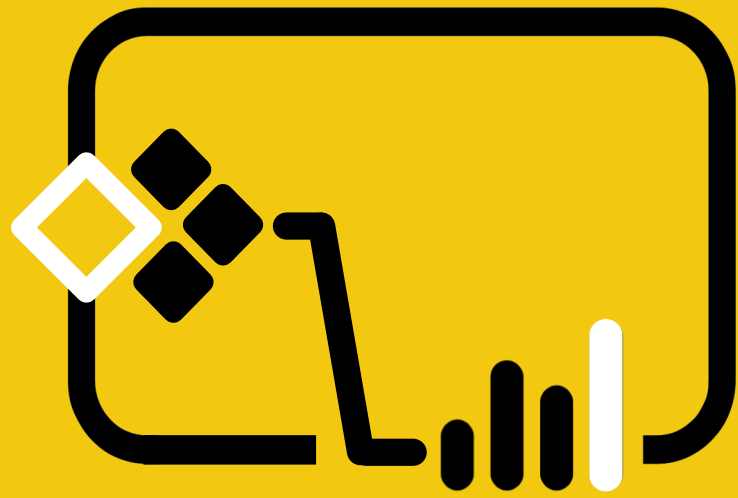


Vous pouvez remplir ce sondage en moins de 5 minutes sur ordinateurs, téléphones et tablettes. Nous comptons sur vous !



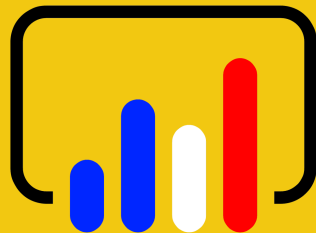
Power

Saturday



Power Saturday

14 et 15 juin 2019, Paris




#SQLSatParis



Une conférence des communautés Club Power BI, GUSS, aOS

Power Saturday 2019

Une conférence annuelle autour de Power BI

- En collaboration avec les communautés **Data** (GUSS) et **Office 365** (aOS)
- 3 conférences regroupées : **Power Saturday, SQLSaturday, SharePoint Saturday**
- Au même endroit que l'an passé (Paris 10ème)
- **6 salles** – 6 ambiances
- Une **40aine de speakers** français et internationaux
- De préconférences Premium le vendredi

Les prochains Meetups

Aix

12 Mars

**Nouveautés
2019**

Lille

21 Mars

**Power BI
Report Server**

Lyon

4 avril

**1er
Meetup**

Les nouveautés sur Power BI

Tristan Malherbe – Co Fondateur du Club Power BI



démo

Roadmap

La roadmap Power BI – Q1 2019

❖ <http://aka.ms/businessappsreleasenotes>

- Drill between Power BI Reports
- Expression-based formatting
- Shared and certified datasets
- Metadata translations for AS models
- Enhanced email subscriptions
- Python support in the service
- B2B support pour l'app Mobile
- Power BI Template Apps
- Custom Visual favorites

Power BI & SAP

Loris Andalaro - Viseo



Sommaire

- ❖ Les bases
- ❖ Déployer Power BI dans un environnement SAP
- ❖ En termes d'architectures
- ❖ Des cas clients
- ❖ Fonctionnalités à venir



Power BI et SAP

Les bases



SAP ERP



SAP BW

- ❖ Entrepôt de données intégré à SAP
- ❖ Beaucoup de contenu fonctionnel standard
- ❖ ETL, modélisation, reporting
- ❖ Vendu avec
 - SAP Business Object
 - SAP Lumira
 - SAP Analytics Cloud
 - Compatible avec Power BI



SAP BW

❖ ETL

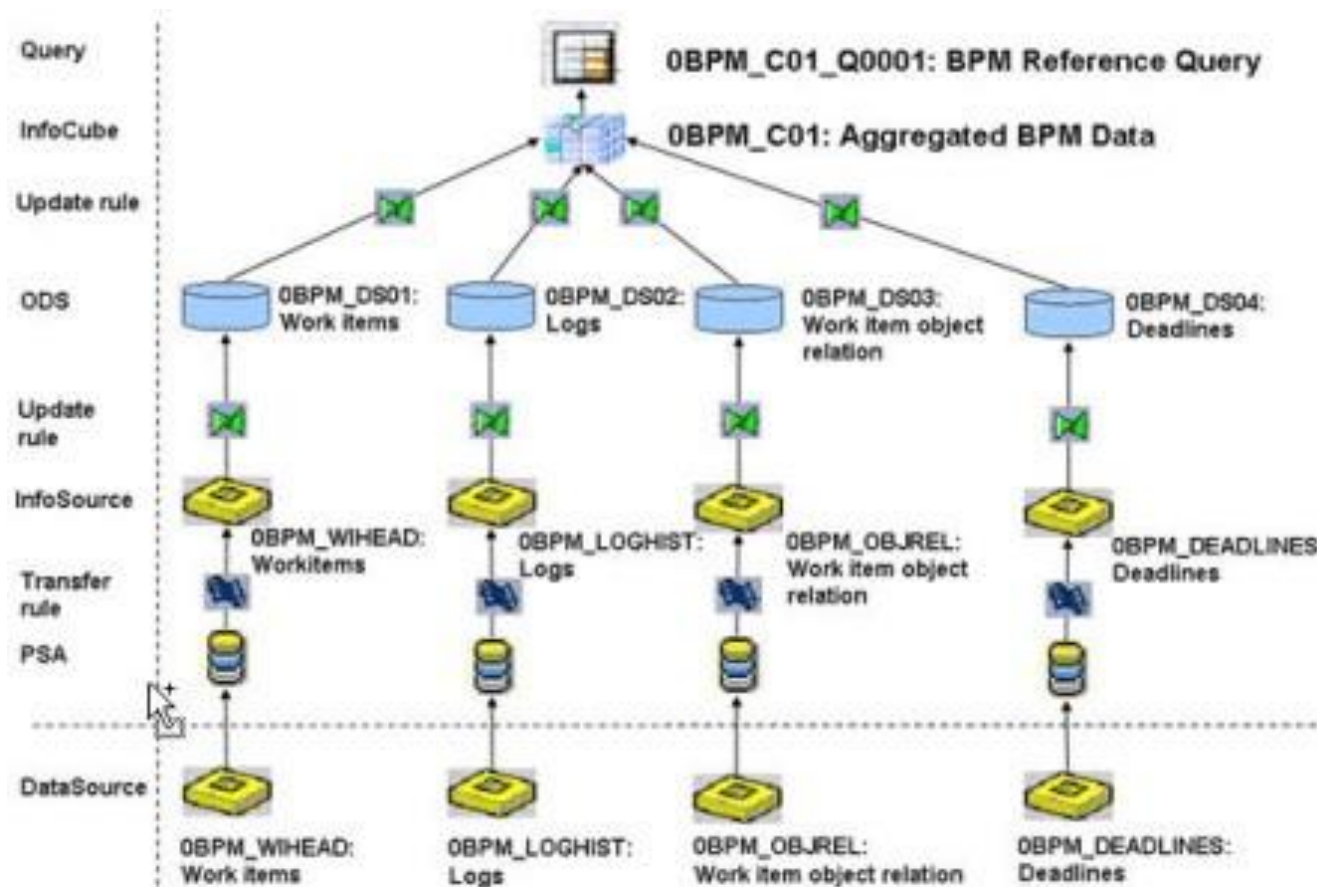
- Datasource
- Datapackages
- Persistent Staging Area
- Operational Data Store
- Transformation Rules

❖ Modélisation

- Infobjects
- Infocubes
- Infosources

❖ Reporting

- Query BEX
- Virtual Provider



Connection Power BI à SAP BW

Get Data Recent Sources Enter Data

Most Common

- Excel
- SQL Server
- Analysis Services
- Text/CSV
- Web
- OData feed
- Blank Query

Database

- All
- File
- Database
- Power BI
- Azure
- Online Services

All

- Sybase database
- Teradata database
- SAP HANA database
- SAP Business Warehouse Application Server
- SAP Business Warehouse Message Server
- Amazon Redshift

SAP Business Warehouse Application Server

Server: sapo1b

System number: 00

Client ID: 100

Data Connectivity mode: Import

Implementation: 2.0 (requires SAP .NET Connector 3.0)

Advanced options

Language code: EN

VCOREC001 [8]

- CORE - Bridge calculation [33]
- CORE - Bridge calculation - Hana analysis process
- CORE - Bridge Power BI
- CORE - Operational Working Capital - Detail [52]

Plant (Selection Options, Optional) (optional)

values: Select one or more values

Calendar Year Month (Select Option, Mandatory)

values: Select one or more values



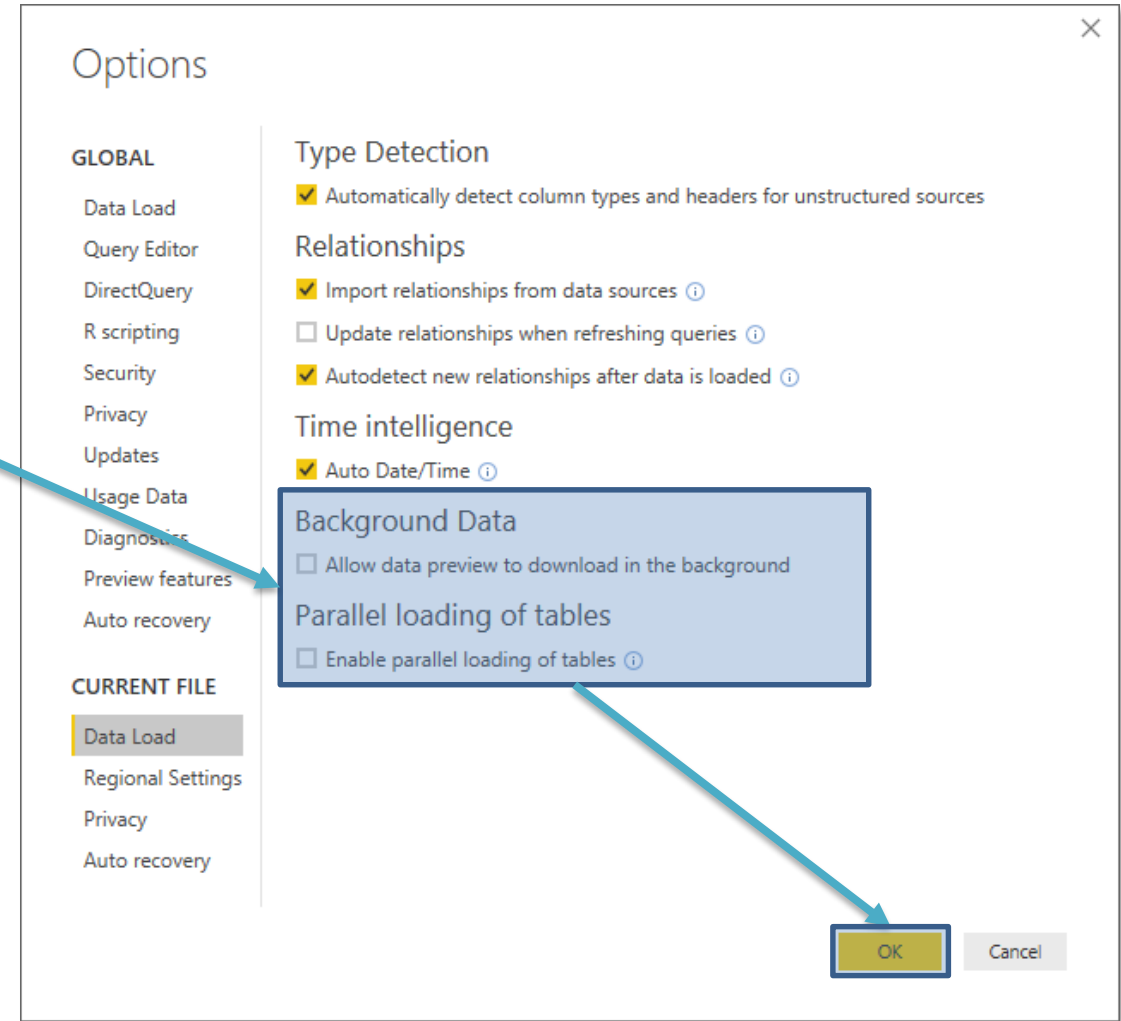
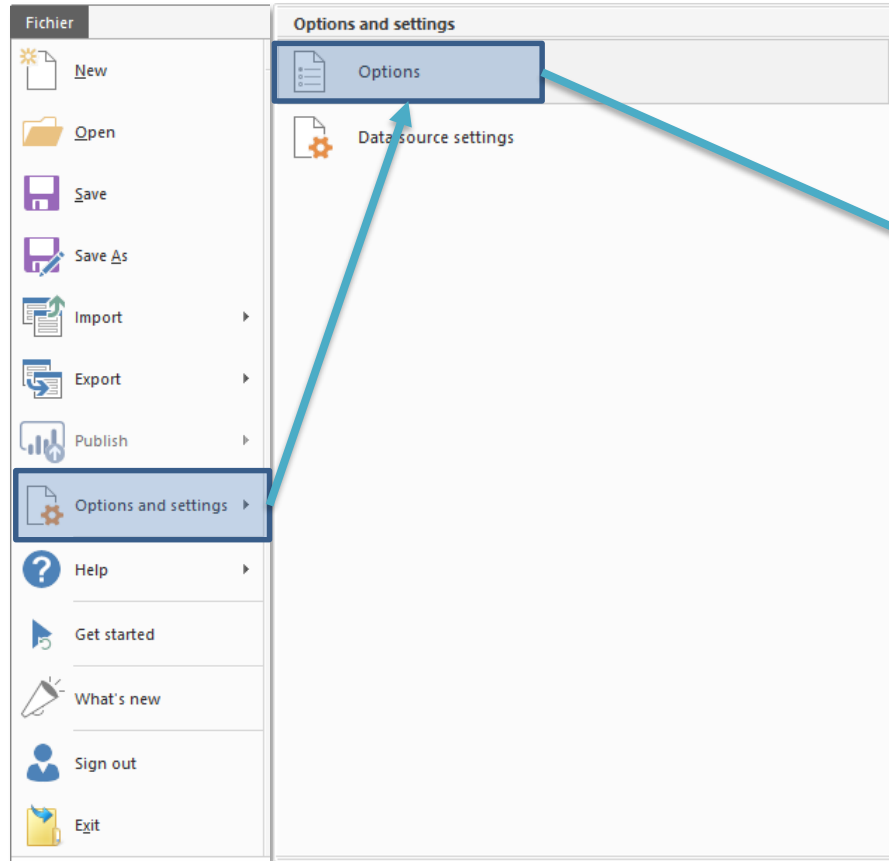
Connection Power BI à SAP BW

The image illustrates the process of connecting Power BI to SAP BW through SAP HANA. It is divided into four main sections connected by blue arrows:

- Get Data Panel:** Shows the 'Get Data' menu with 'SQL Server' and 'Analysis Services' highlighted under the 'Most Common' section.
- Database Selection:** A search bar is shown with 'All' selected. The list of databases includes Sybase, Teradata, SAP HANA (highlighted), SAP Business Warehouse, and Amazon Redshift.
- SAP HANA Configuration:** The 'SAP HANA database' configuration window is shown. The 'Server' field contains 'sapg1h[redacted]' and the 'Port' is set to '--Custom--' with a value of '[redacted]'. The 'Data Connectivity mode' is set to 'Import'.
- Field Selection:** A list of fields is shown, including 'VCOREC001 [8]' and several 'CORE - Bridge calculation' fields. The 'Plant (Selection Options, Optional) (optional)' and 'Calendar Year Month (Select Option, Mandatory)' fields are also visible.



Bonnes pratiques



Rendre une requête visible dans Power BI

The screenshot displays the BEx Query Designer window, titled "BEx Query Designer - Query: New Query". The interface is divided into several panes:

- InfoProvider:** Shows a tree structure for "Spend Analysis" with "Key Figures" (SPend (%), SPend (\$)) and "Dimensions" (Vendor, Vendor Name, Vendor Status, Region, City, Category, Data Package, Request ID, Time, Calendar Year).
- Rows/Columns:** Contains two sub-panes:
 - Free Characteristics:** Lists dimensions like Vendor, Vendor Name, Vendor Status, Region, City, and Category. A watermark "Area for Dimensions" is visible.
 - Columns:** Lists key figures like SPend (%) and SPend (\$). A watermark "Area for Dimensions" is visible.
- Rows:** Shows a list of rows, including "Calendar Year". A watermark "Area for Dimensions" is visible.
- Preview:** Displays a table with columns "Spend (%)" and "Spend (\$)". The rows are labeled "a-Calendar" and "b-Calendar".
- Properties:** Contains metadata for the query, including "REP_20180316020447 (Query)", "Technical Name", "InfoProvider" (ZSA_CUBE), and "Key Date".
- Messages:** A section at the bottom for displaying messages.

The bottom right corner of the window shows the system clock: 7:37 AM.



Power BI et SAP

Déployer Power BI dans un environnement SAP



Points clés

Utilisation des
requêtes

Connecteurs
BW vs Hana

Gestion multi
environnements

Imports ou
direct query

Stabilité et
performances

Monitoring



Utilisation des requêtes

- ❖ Mesures / key figures
- ❖ Dimensions / characteristics
- ❖ Propriétés / attributes
 - Non présents en mode Hana
- ❖ Paramètres / Prompts

Add Items

Select dimensions and measures to add to the query.

3 - Forecast Accuracy [28]

- ☒ Forecast Quantity (Ton)
- ☒ Requested order Quantity (Ton)
- ☐ Measure Properties

BU(CORE) [2]

- ☒ BU(CORE) Level 01

Properties [5]

- ☐ Activity (CORE) (Key)
- ☐ Activity (CORE) (Long Name)
- ☐ BU(CORE) Level 01.UniqueName
- ☒ Key
- ☐ Long Name

Calendar Year/Month [2]

Select parameters and variables for the query.

Calendar Year/Month (Multiple / Mandatory)










values

[4VSCC003-IP_CALMONTH].[201803], [4VSCC003-IP_CALMONTH].[20 ...



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Connecteurs BW vs Hana

Connecteurs	Complexité	Performance	Stabilité
BW 1.0, mode import	Simple à utiliser 	Max 100 000 lignes Latences importantes 	Erreurs de rafraichissement Problèmes avec les prompts 
BW 2.0, mode import	Simple à utiliser 	Jusqu'à 500 000 lignes 	Problèmes avec les prompts 
Hana, mode import	Adaptations nécessaires de part et d'autre 	Jusqu'à 10 millions des lignes 	



Utilisation des requêtes

- ❖ Il est important de limiter la quantité de données importés via les prompts
- ❖ Attention aux sélections complexes qui sont encore parfois sujettes aux bugs

- ❖ L'ajout ou la suppression de prompts dans la requête peut casser l'appel à cette dernière

Plant (Selection Options, Optional) (optional)

values

Select one or more values

...

Calendar Year Month (Select Option, Mandatory)

values

Select one or more values

...

```
M_VMMIMC011_1 = #system-local.bw.bw2hana.query.vmmimc011{[Name="M_VMMIMC011_001"]}[Data],
#"Added Items" = Cube.Transform(M_VMMIMC011_1,
{
  {Cube.ApplyParameter, "VA_IMMRC_CALMONTH01", {"201701", "201702", "201703", "201704", "201705", "201706"},
  {Cube.AddAndExpandDimensionColumn, "[M_VMMIMC011_001]", {"[C_UGCORE__C_BUCORE].[C_UGCORE__C_BUCORE].Attribu
  {Cube.AddMeasureColumn, "Quantity of valuated stock (KG)", "[Measures].[0EEU2FPL5L9BLA5K48YMUP80K]"},
  {Cube.AddMeasureColumn, "Quantity of valuated stock (LB)", "[Measures].[0EEU2FPL5L9BLA5K48YMUPEC4]"},

VSCC003 = Source{[Name="VSCC003"]}[Data],
#"VSCC003/M_VSCC003_001" = VSCC003{[Id="VSCC003/M_VSCC003_001"]}[Data],
#"Added Items" = Cube.Transform(#"VSCC003/M_VSCC003_001",
{
  {Cube.ApplyParameter, "[!V000001]", {"[4VSCC003-IP_CALMONTH].[201803]", "[4VSCC003-IP_CALMONTH].[201804]"},
  {Cube.AddAndExpandDimensionColumn, "[C_UGCORE__C_BUCORE]", {"[C_UGCORE__C_BUCORE].[LEVEL01]"}, {"BU(CORE).BU
  {Table.AddColumn, "BU(CORE).BU(CORE) Level 01.Key", each Cube.AttributeMemberProperty([#"BU(CORE).BU(CORE) Le
  {Cube.AddAndExpandDimensionColumn, "[C_UGCORE]", {"[C_UGCORE].[LEVEL01]"}, {"UG (CORE).UG (CORE) Level 01"}},
```



Utilisation des requêtes

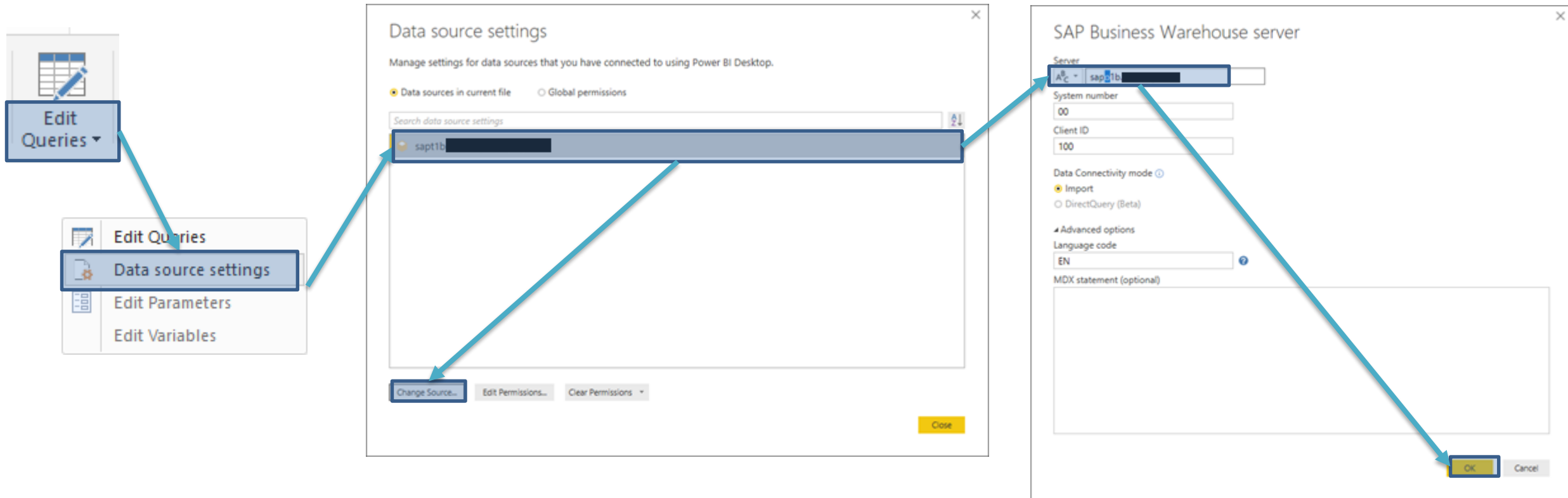
❖ Cas des propriétés avec les vues Hana

The screenshot displays the Power Query Editor interface. The main area shows a table with 43 columns and 999+ rows. The columns are: Material SKU Code, Plant - Consolidated Code, Profit Center Code, UG Code, and UG CORE Code. The table contains data for various materials and plants. The 'QUERY SETTINGS' pane on the right shows the 'PROPERTIES' section with the query name 'M_VMMIMC011_001' and the 'APPLIED STEPS' section listing the steps: Source, Navigation, Added Items, Added Custom, Added Custom1, Added Custom2, Added Custom3, Added Custom4, Added Custom5, Added Custom6, Added Custom7, Added Custom8, Added Custom9, Added Custom10, Added Custom11, and Added Custom12. The 'Added Custom12' step is currently selected.

	Material SKU Code	Plant - Consolidated Code	Profit Center Code	UG Code	UG CORE Code
1	12283-00-IK00	N09BT	16C00	6C	RC6C
2	000000000000054288	P0524	0000039001	6C	RC6C
3	23816-00-IH00	N01AW	1A400	A4	RCA4
4	00000000000003224	P0008			RCHE03
5	21920-00-IK00	N06ZK	16C00	6C	RC6C
6	23573-00-GH00	N01DJ	1B800	B8	RCB8
7	000000000000066216	P0593	0000040200	60	RC60
8	000000000000068173	P0592	0000040100	6M	RC6M
9	000000000000054288	P0524	0000039001	6C	RC6C
10	13030-00-PN00	N06ZK	16A00	6A	RC6A
11	10680-00-IH00	N0179	0000014700	47	RC47
12	15516-00-XGS0	N09IP	1S100	S1	RCS1
13	24751-00-BULK	N01CX	1A900	A9	RCA9
14	00000000000003697	P0055	0000038020	71	RC71
15	17512-80-EH00	N0102	17D00	7D	RC7D
16	22942-00-XG00	N9HCU	1S700	S7	RCS7
17	16505-00-BH00	N0102	0000017800	78	RC78
18	10584-00-IK0S	N0191	16M00	6M	RC6M
19	000000000000012445	P0191	0000019010	L6	RCL6
20	000000000000000000	0000000000000000	0000000000	00	RC00

Gestion multi environnements

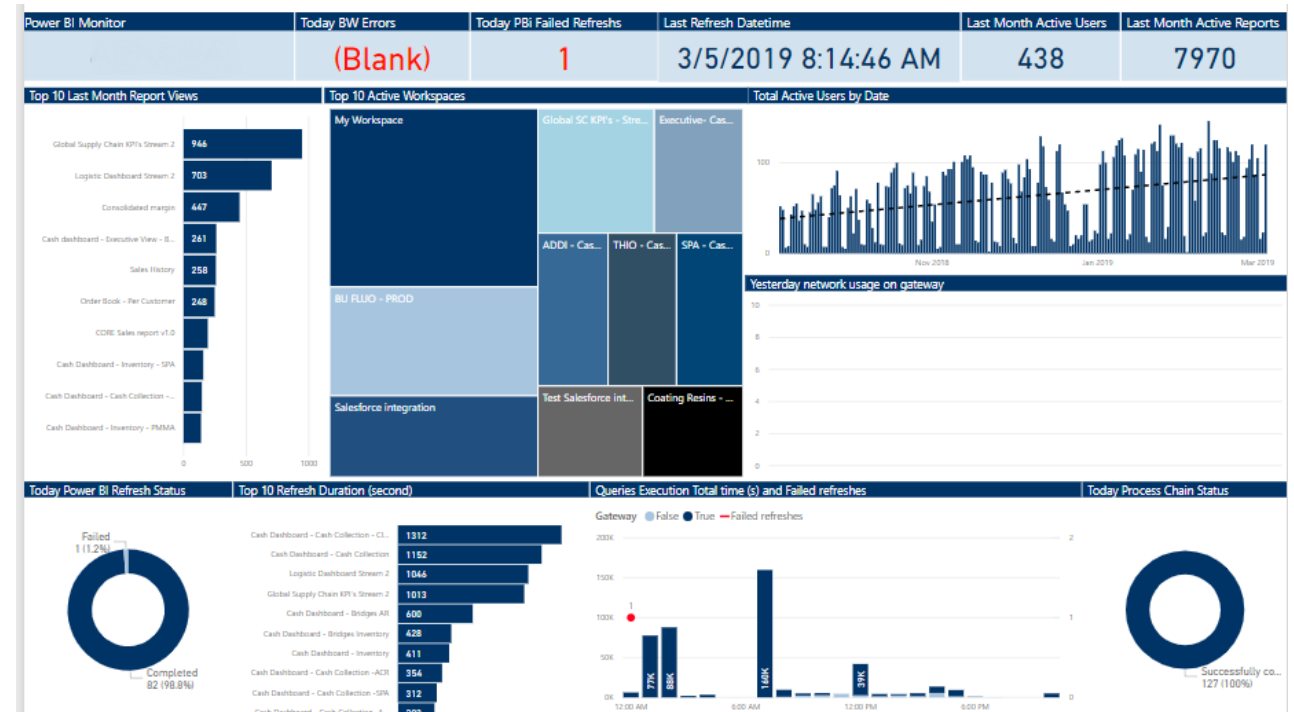
- ❖ Dans l'univers SAP on travaille avec des environnements distingués par des lettres (O, G, T...). Les développements sont transportés d'un système à l'autre.



Monitoring

❖ Construction d'un rapport Power Bi de monitoring

- Traitements BW
 - OTCT_MC12/Q_OTCT_MC12_Q100
- Utilisations des requêtes BW
 - OTCT_MC01/Q_OTCT_MC01_002
- Logs de refresh
 - script Power Shell
- Logs d'audit exportés
 - script Power Shell



Import mode vs Direct query

- ❖ Souhait de nombreux clients dans le but d'éviter de copier les données
- ❖ Attentions aux performances surtout avec BW
- ❖ Possibilité de faire du SSO afin de gérer les droits dans le datawarehouse

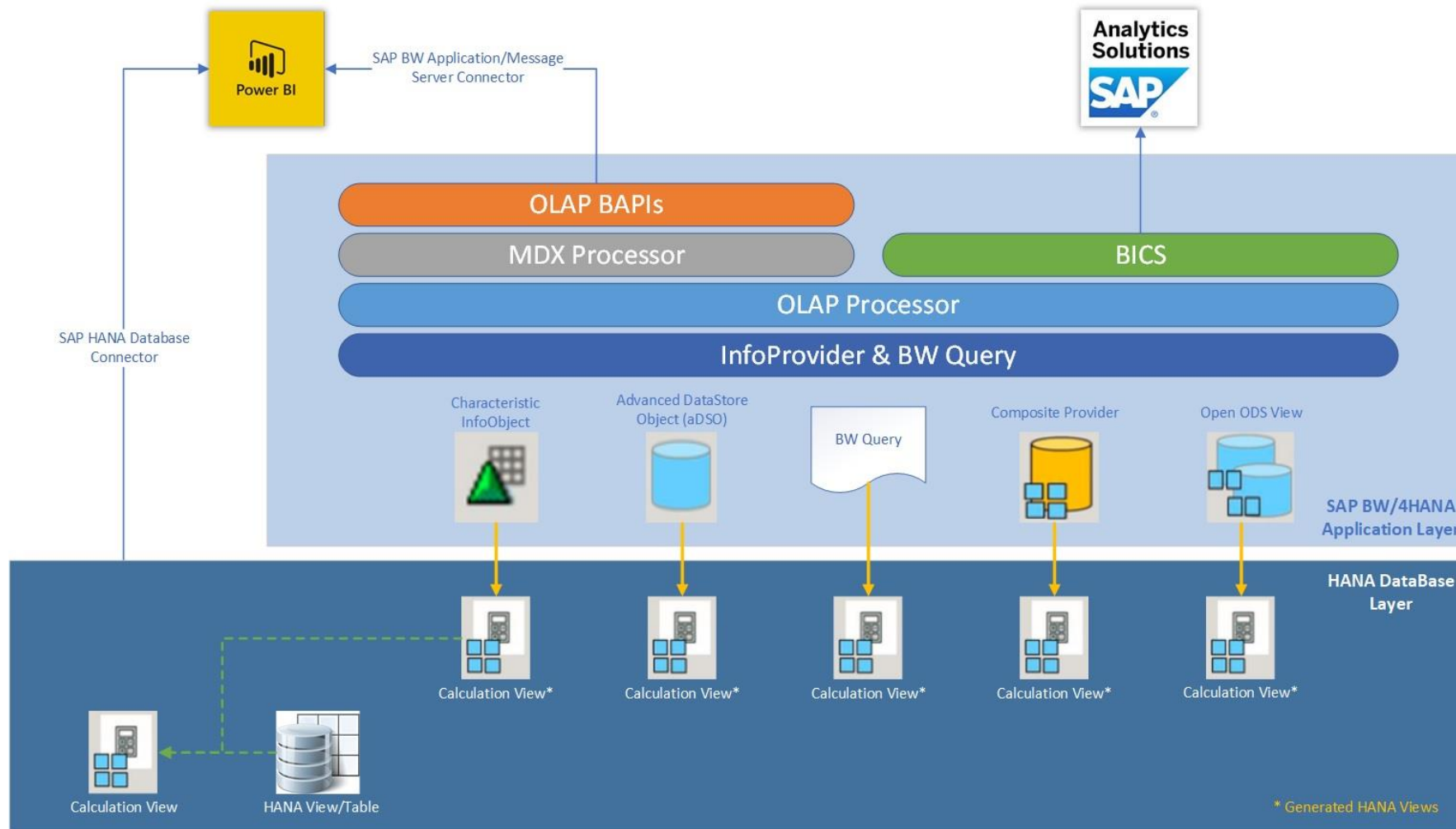


Power BI et SAP

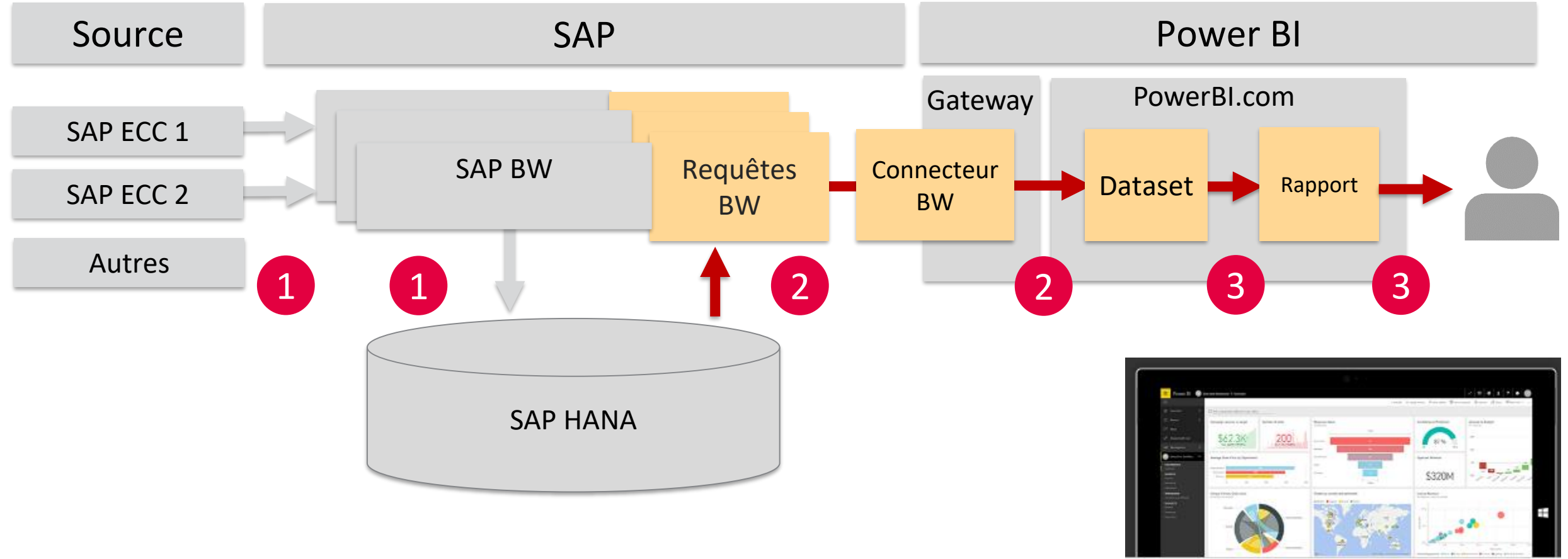
En termes d'architectures



En théorie

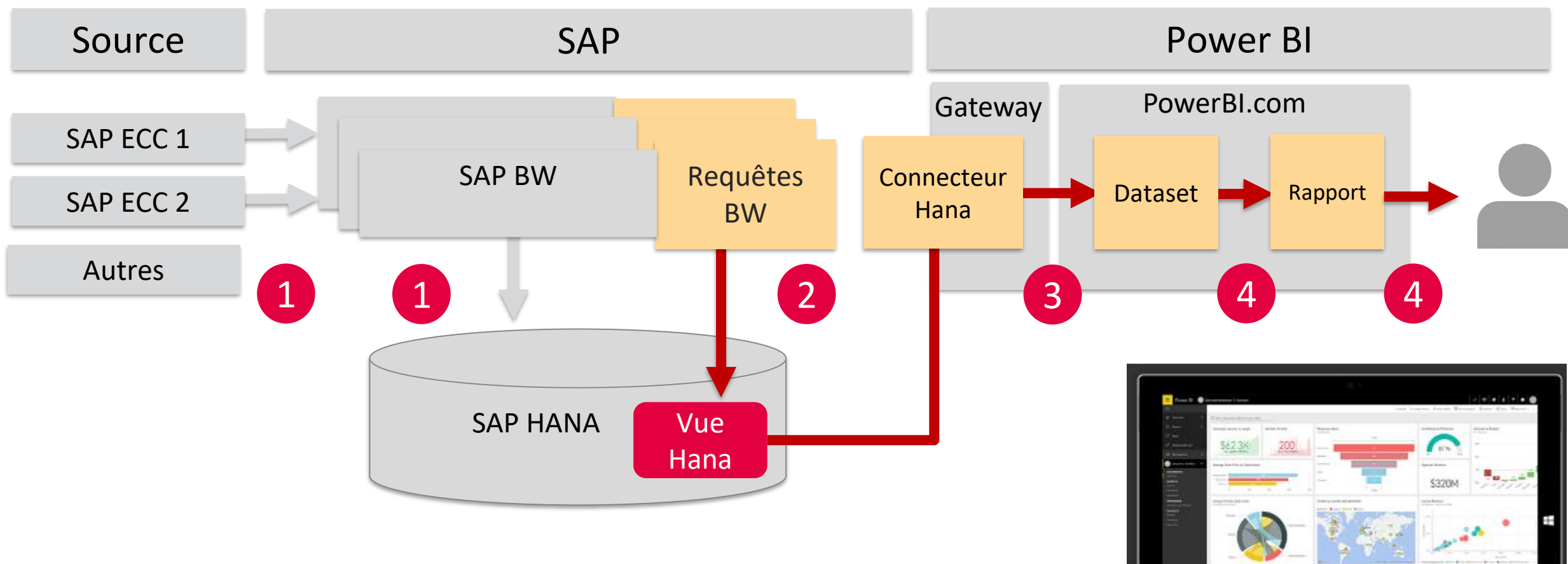


Avec le connecteur BW



Avec le connecteur Hana

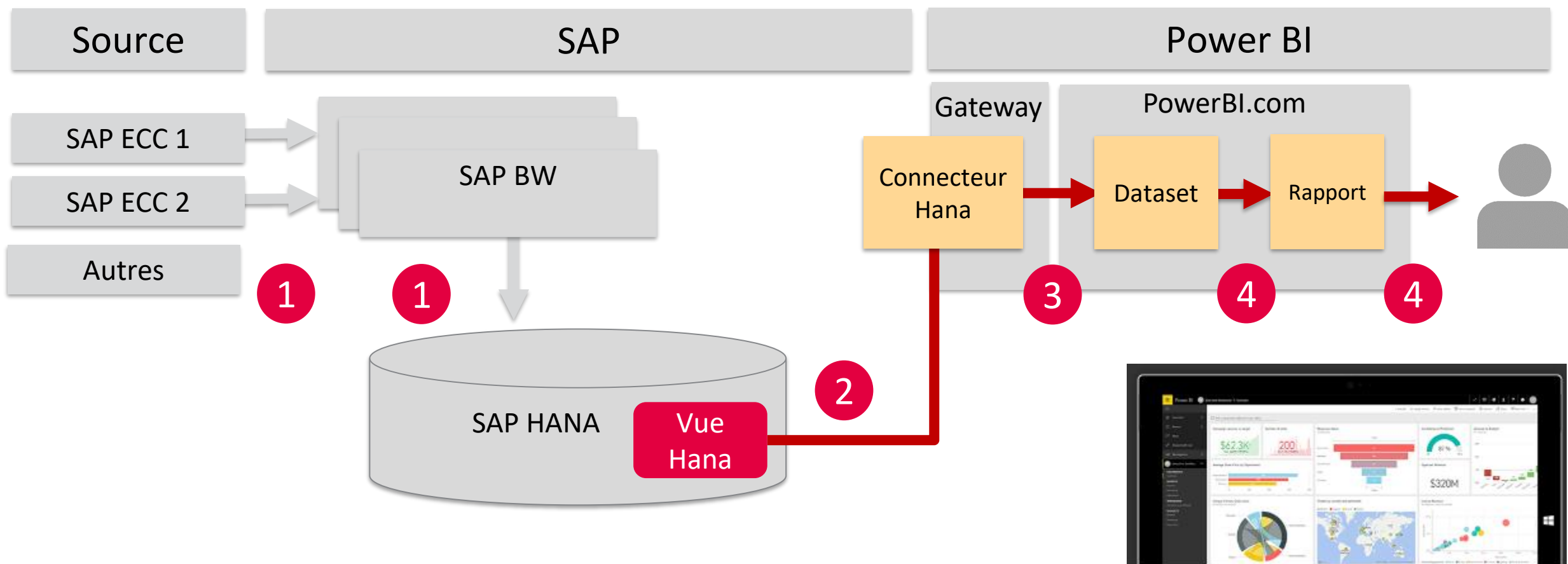
En passant par une requête BW et une vue auto générée



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Avec le connecteur Hana

Sans requête BW et avec une vue développée



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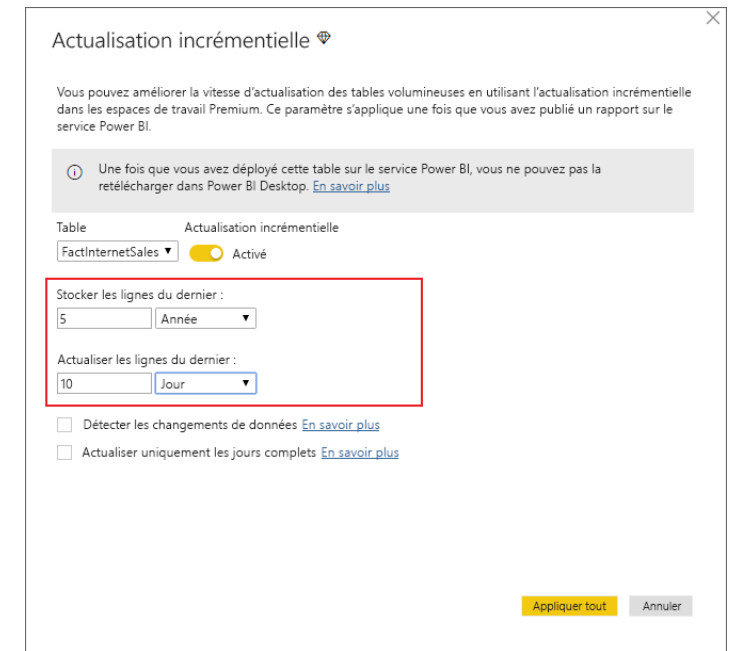
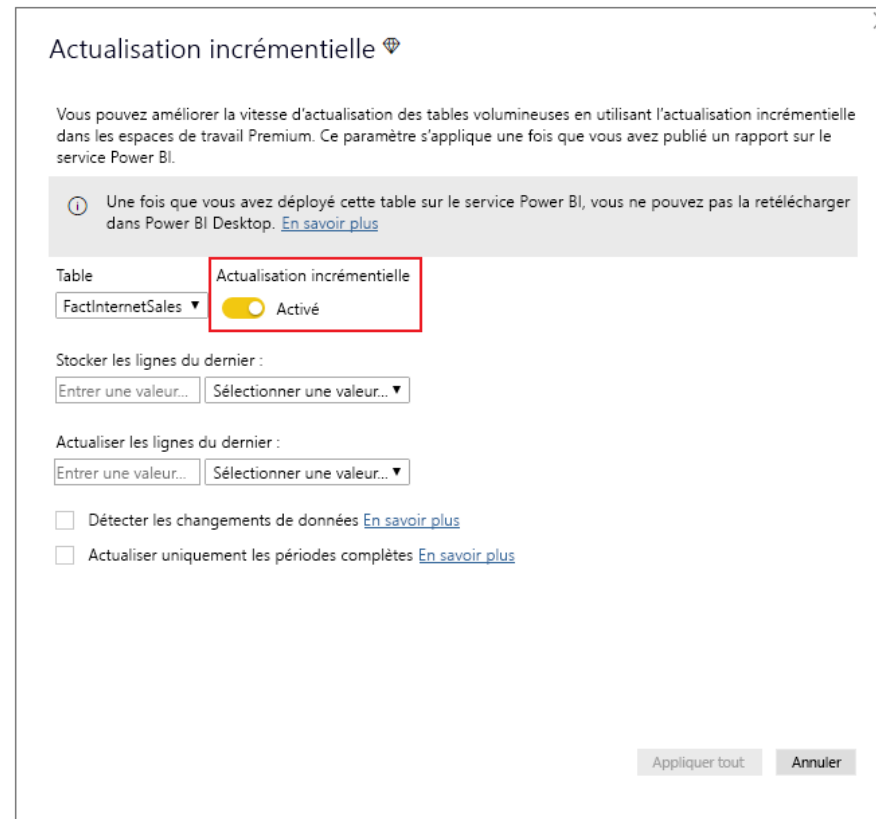
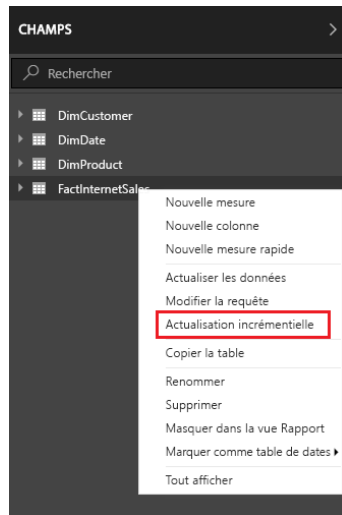
Power BI et SAP

A venir



Actualisation incrémentielle

- ❖ Peu robuste
- ❖ Intégration avec BW un peu compliquée



Power BI dataflow

- ❖ Toujours en preview
- ❖ Nécessite de copier/coller le code M dans powerbi.com

Power Query

Edit queries

Get data Refresh Options Manage columns Transform table Reduce rows Add column Map to standard Combine tables

1 - Logistic Activity
2 - Inventory
3 - Forecast Accuracy

fx = Cube.Transform(M_VMMIMC011_1, {{Cube.ApplyParameter, "VA_IMMRC_CALMONTH01", {"201701", "201702", "201703", "201704", "201705", "201706", "201707", "201708"}}

	A ^B _C BU (CORE)	A ^B _C Calendar Year/Mo...	A ^B _C Currency Key	A ^B _C Entity (CORE)	A ^B _C Geo Macro Region...	A ^B _C Inventory Perform...	A ^B _C Inventory Prime st...
1	Specialties Polyamides	201804	USD	Arkema Delaware Inc.	Americas	Performing	Available Prime
2	New Product Incubator	201803	EUR	Arkema France	Europe Middle East Africa	Non Performing, Blocked, ...	Non Prime
3	PMMA & Methacrylics	201804	EUR	Arkema SRL	Europe Middle East Africa	Performing	Available Prime
4	Coating Resins	201802	EUR	Arkema Gmbh	Europe Middle East Africa	Performing	Available Prime
5	Surfactants - Oil Additives	201802	EUR	Arkema France	Europe Middle East Africa	Performing	Available Prime
6	Coating Resins	201806	USD	Arkema Delaware Inc.	Americas	Performing	Available Prime
7	Fluorinated Polymers	201809	USD	Arkema Delaware Inc.	Americas	Performing	Available Prime
8	Hydrogen Peroxide	201805	EUR	Arkema France	Europe Middle East Africa	Performing	Available Prime
9	Coating Resins	201802	USD	Arkema Delaware Inc.	Americas	Performing	Available Prime
10	Specialties Polyamides	201803	EUR	Arkema France	Europe Middle East Africa	Performing	Available Prime

Name
2 - Inventory

Entity type ⓘ
Custom

Applied steps

- Source
- Contents
- system-local.bw.b...
- M_VMMIMC011_1
- Added Items
- Added BU code





220 M€

CA 2018



2300

EFFECTIFS 2018

MARKETING
& DESIGN



DATA &
ANALYTICS



PROCESS



DIGITAL
TECHNOLOGIES



PARIS • GRENOBLE • MORLAIX •
NANTES • LYON • TOULOUSE •
AIX-EN-PROVENCE



FRANCE • MAROC • USA •
HONG KONG • SINGAPOUR •
PHILIPPINES • AUSTRALIE • INDONÉSIE



Place au networking

