



EiB Financial Analytics and Power BI – Better Together **Excel in Business**

Why Take Sage Data From EiB Finance Cube ?

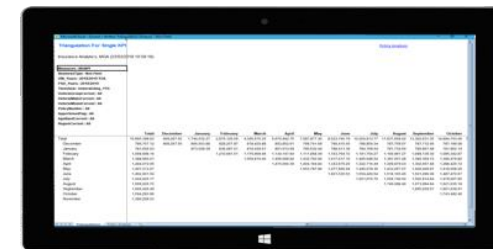
Data

- Actual, Budget from Sage
- Forecast from EiB
- Multi Company Consolidated
 - All Departments, Cost Centres, Account Levels
- Memo Accounts

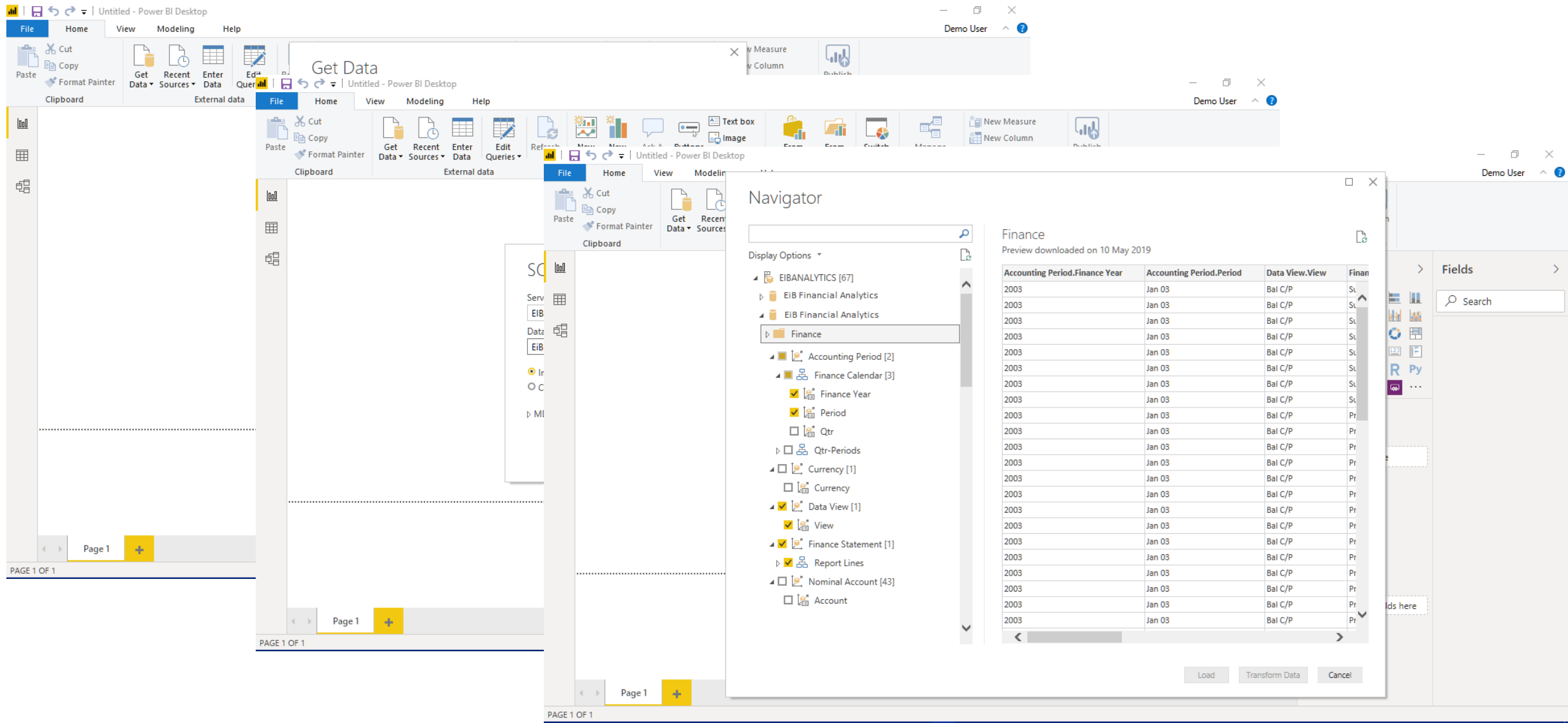
Business Logic

- Finance P&L Structures
 - Usually Different From Sage
- Generated KPIs
 - Net Profit etc

Matches Financial MI In Excel



Just Using Standard Power BI Import From Cube



The screenshot shows the Power BI Desktop interface with the 'Get Data' dialog box open. The 'Navigator' pane displays a tree structure of data sources under 'EIBANALYTICS [67]'. The 'Finance' table is selected, and its preview is shown in the 'Get Data' dialog. The preview table has the following data:

Accounting Period.Finance Year	Accounting Period.Period	Data View.View	Finance Statement
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	St
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr
2003	Jan 03	Bal C/P	Pr

Standard Power BI Import - Challenges

Data

- Too Big – Will Blow Import Limits
 - Single Company Level !

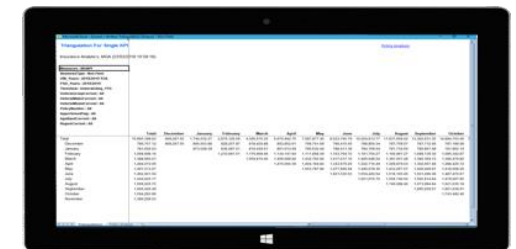
Loading From SQL Server Analysis Services

- Microsoft Power BI Load Not Optimised
- Dimensions Are All Members Or Nothing
 - Restrictive, Inefficient & Bloats Power BI Model
- Non Existent Error Trapping
 - It Works Or It Doesn't
- Very Slow

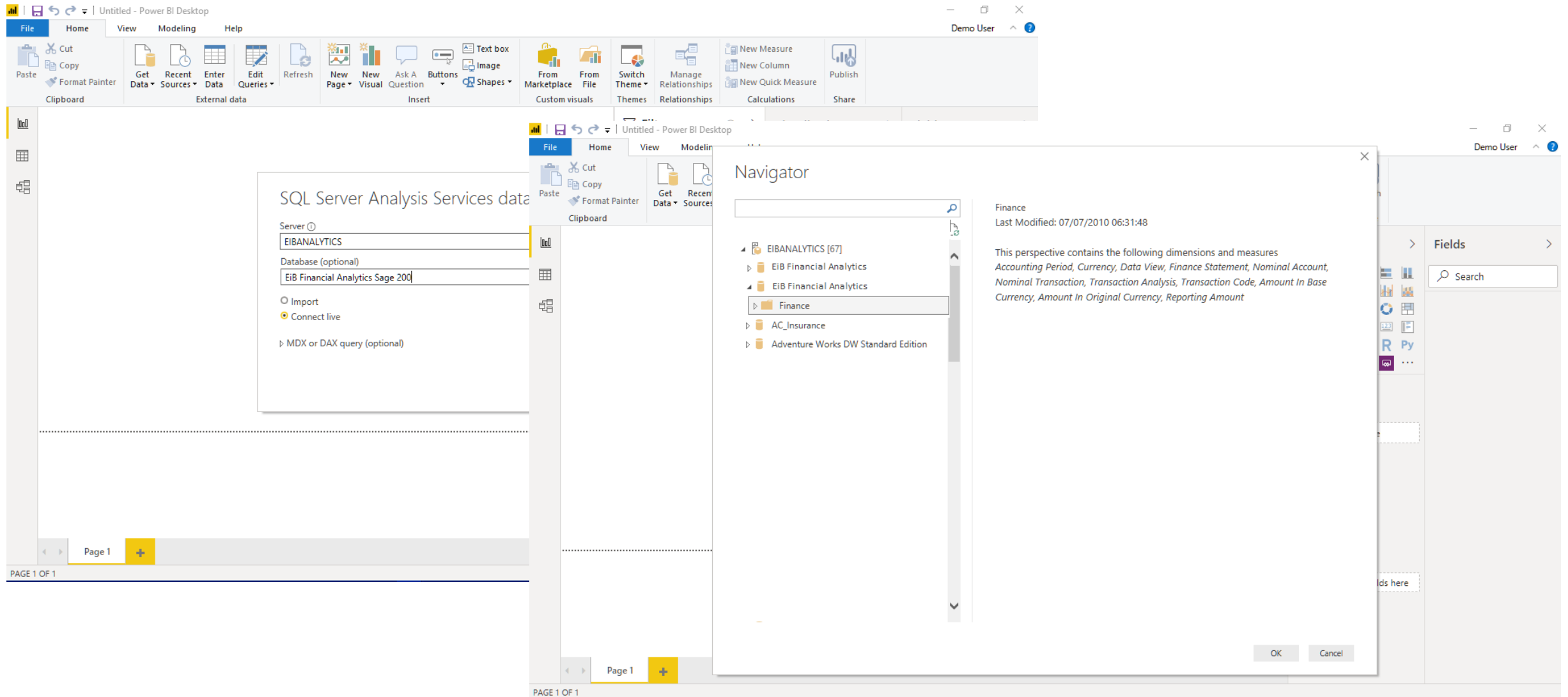
Would Need To Understand Results

- Build Power BI Reports From Scratch

Not A Practical Solution



Standard Power BI Live Query From Cube



The screenshot displays the Power BI Desktop interface. The main window shows the 'SQL Server Analysis Services data source' dialog box with the following details:

- Server: EIBANALYTICS
- Database (optional): EIB Financial Analytics Sage 200
- Options: Import, Connect live
- MDX or DAX query (optional):

The 'Navigator' window is open, showing a tree view of data sources:

- EIBANALYTICS [67]
 - EiB Financial Analytics
 - EiB Financial Analytics
 - Finance
 - AC_Insurance
 - Adventure Works DW Standard Edition

The 'Finance' folder is selected, and the right pane shows:

- Finance
- Last Modified: 07/07/2010 06:31:48
- This perspective contains the following dimensions and measures: Accounting Period, Currency, Data View, Finance Statement, Nominal Account, Nominal Transaction, Transaction Analysis, Transaction Code, Amount In Base Currency, Amount In Original Currency, Reporting Amount

The 'Fields' pane on the right is also visible, containing a search bar and a list of fields.

Standard Power BI Live Query From Cube

Profit & Loss Variances (Current Period, Last Year)

ALC_Finance_2011, Finance (04/02/2012 10:49:44)

Companies : ALC Consolidated
 Measures : Journal Amount
 Cost Centre : All
 Department : All
 Finance Calendar : Jun 10

	Actual	Budget	Variance	Variance %	Actual Last Year
+ Sales					
+ UK Sales	74,165.06	266,666.66	(192,501.60)	(72.19%)	
+ Export Sales		1,416.66	(1,416.66)		
Total Sales	74,165.06	268,083.32	(193,918.26)	(72.34%)	
+ Trading Expenses					
+ Cost Of Sales	178,311.22	68,833.32	(109,477.90)	(159.05%)	
+ Direct labour		4,333.32	4,333.32		
+ Direct Selling		8,349.98	8,349.98		
Total Trading Expenses	178,311.22	81,516.62	(96,794.60)	(118.74%)	
Gross Profit	(104,146.16)	186,566.70	(290,712.86)	(155.82%)	

Standard Power BI Live Cube Challenges

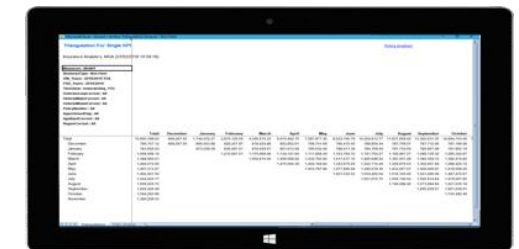
- **SQL Server Analysis Services Support**
 - Requires SQL Server 2017 Standard Upward or 2014 / 2016 Enterprise

- **SQL Server Analysis Services Features**
 - EiB Financial Analytics An Advanced Cube
 - **For A La Carte and EiB Financial Analytics 2018**
 - Power BI Does Not Support Ragged Hierarchies Or Certain Linear Hierarchies
 - Can't See YTD Results For Actuals Or Budgets
 - Cube enhanced for EiB Analytics to show these items

- **Infrastructure Required**
 - Must Install Power BI Enterprise Gateway To Work With Power BI Service

- **Would Need To Understand Results**
 - Build Power BI Reports From Scratch

- **Best Performance Option**



EiB Approach 1 : Import

● Need EiB AppStudio Software & EiB Power BI Design

- Extracts Logic And Data From EiB Cube
- Generates SQL Database Optimised For Power BI Loading
- Loads Power BI Import Model

(BUT NOT WITH SAME MS RESTRICTIONS OTHER THAN TOTAL MODEL SIZE OF 1M ROWS AND LOAD TIME ON LARGER MODELS)

Could Always Use SQL Live Query For Massive Models



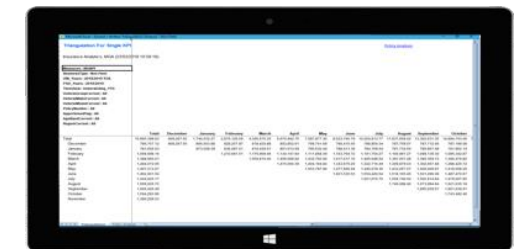
● Services

- EiB Just Tweak The AppStudio Design After Checking With Finance
 - Model Then Just Builds



● Power BI App & PBIX File Delivered To The Customer

- Powerful Functionality Out Of The Box
- No Need To Understand The Results From Day 1
- Can Be Customer Modified, Added To etc
- Can Be Integrated Into Existing Power BI Infrastructure

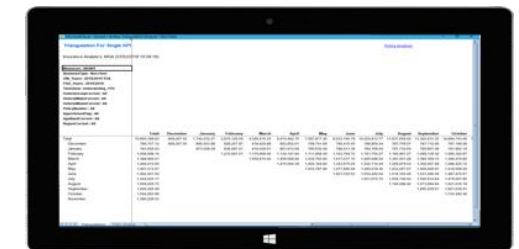


EiB Approach 2 : Live Connection

- **Need EiB Analytics (2020 Onwards) & Power BI Model**
 - FINI Cube Automatically Generates Optimised Cube For Power BI
 - Connection Is Live, So No Refresh Needed
 - Requires Power BI Enterprise Gateway To Be Installed
 - This Requires SQL Server 2017+ Standard or SQL Server 2014+ Business Intelligence or Enterprise Editions

- **Services**
 - EiB Just Tweak The Power BI Model After Checking With Finance
 - Model Then Just Accesses The Cube

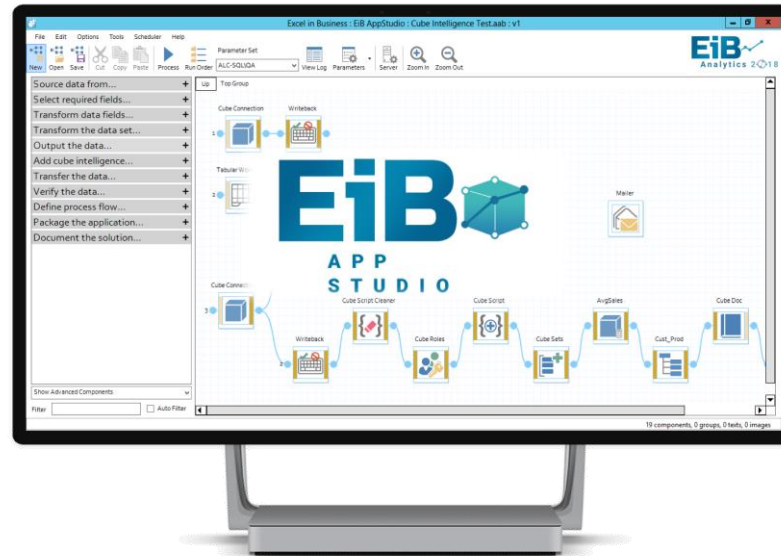
- **Power BI App & PBIX File Delivered To The Customer**
 - Powerful Functionality Out Of The Box
 - No Need To Understand The Results From Day 1
 - Can Be Customer Modified, Added To etc
 - Can Be Integrated Into Existing Power BI Infrastructure



EiB Analytics Software & Services

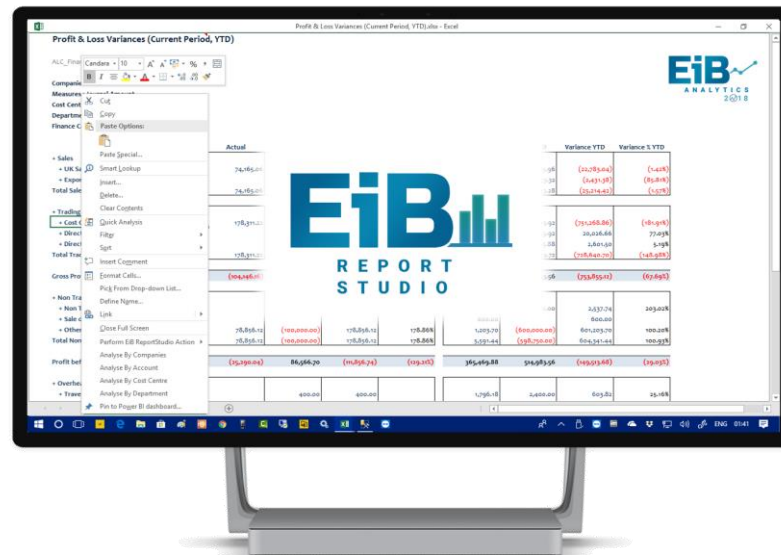
EiB AppStudio

- Visual MI Apps for MS BI
- Any source
- Any output
- Automation
- Documentation
- Grouping
- Cleansing



EiB ReportStudio

- Excel Reporting Add-in
- SQL / Cube / Tabular
- Formatted Reports
- Unstructured Reports
- Dashboards
- Distribution



EiB Analytics (2020 onwards) - Import



EiB Financial Analytics Cube

- Sage 200
- Multi Dimensional

Cube Extract Object



Power BI Staging Database



on-premises data gateway

Personal Model

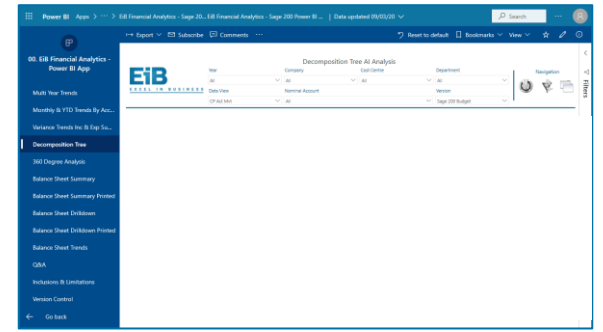
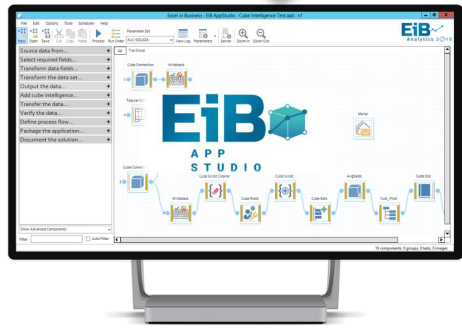


EiB Financial Analytics App



Any SQL Server Analysis Services Cube

- Multi Dimensional
- Tabular
- Azure Analysis Services



EiB Analytics Template



EiB Analytics (2020 onwards) – Live Connection



EiB Financial Analytics Cube

- Sage 200
- Multi Dimensional

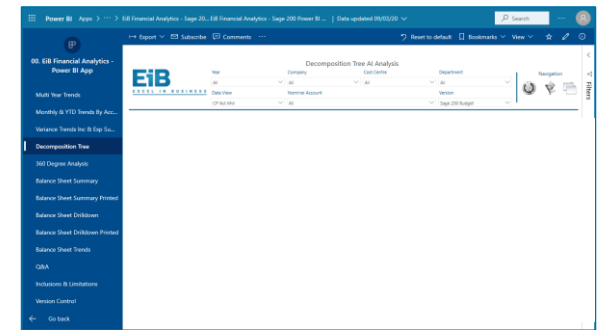


Any SQL Server Analysis Services Cube

- Multi Dimensional
- Tabular
- Azure Analysis Services

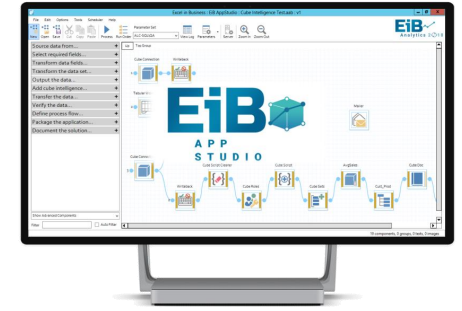
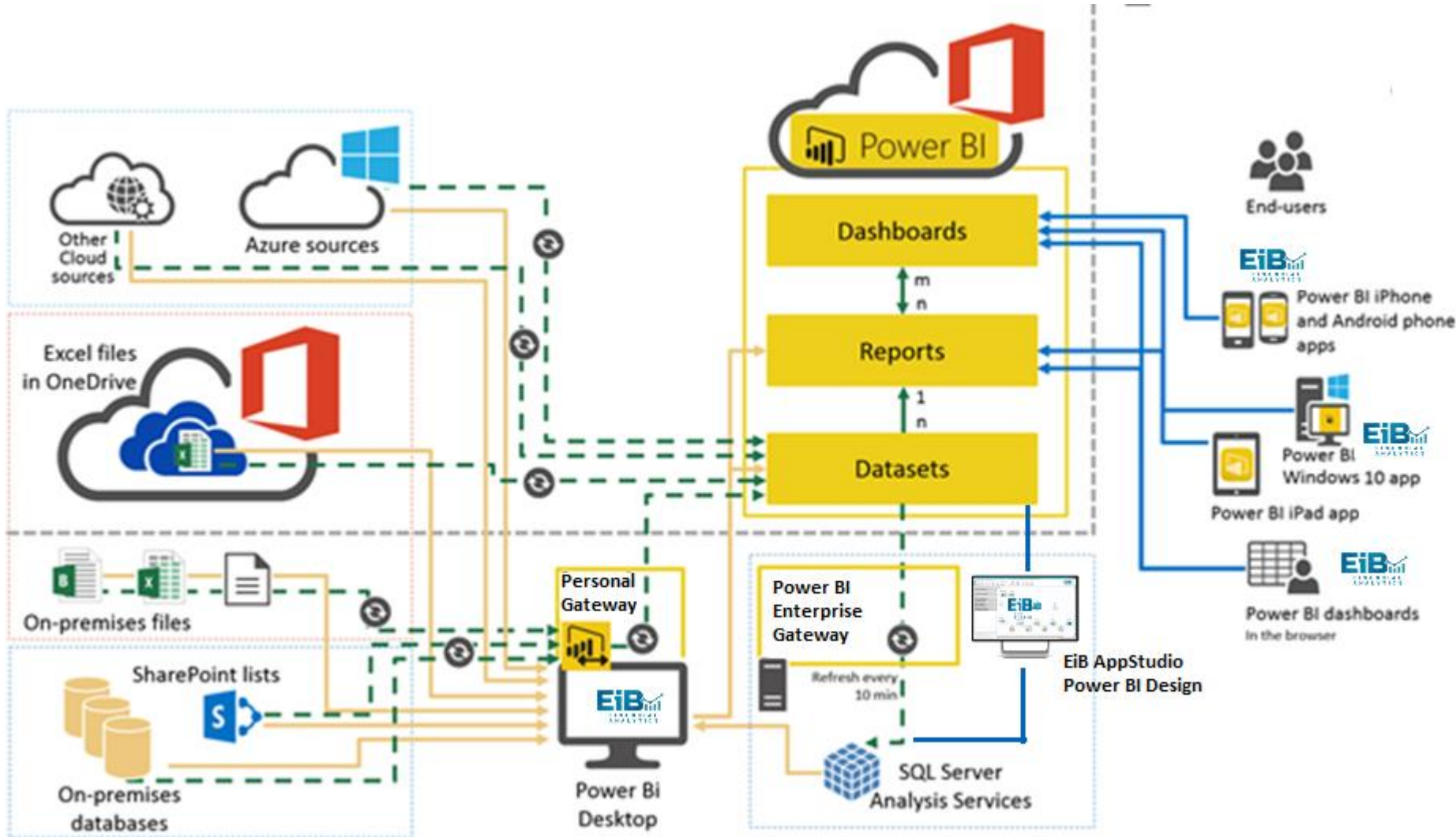


EiB Financial Analytics App



EiB Analytics Template

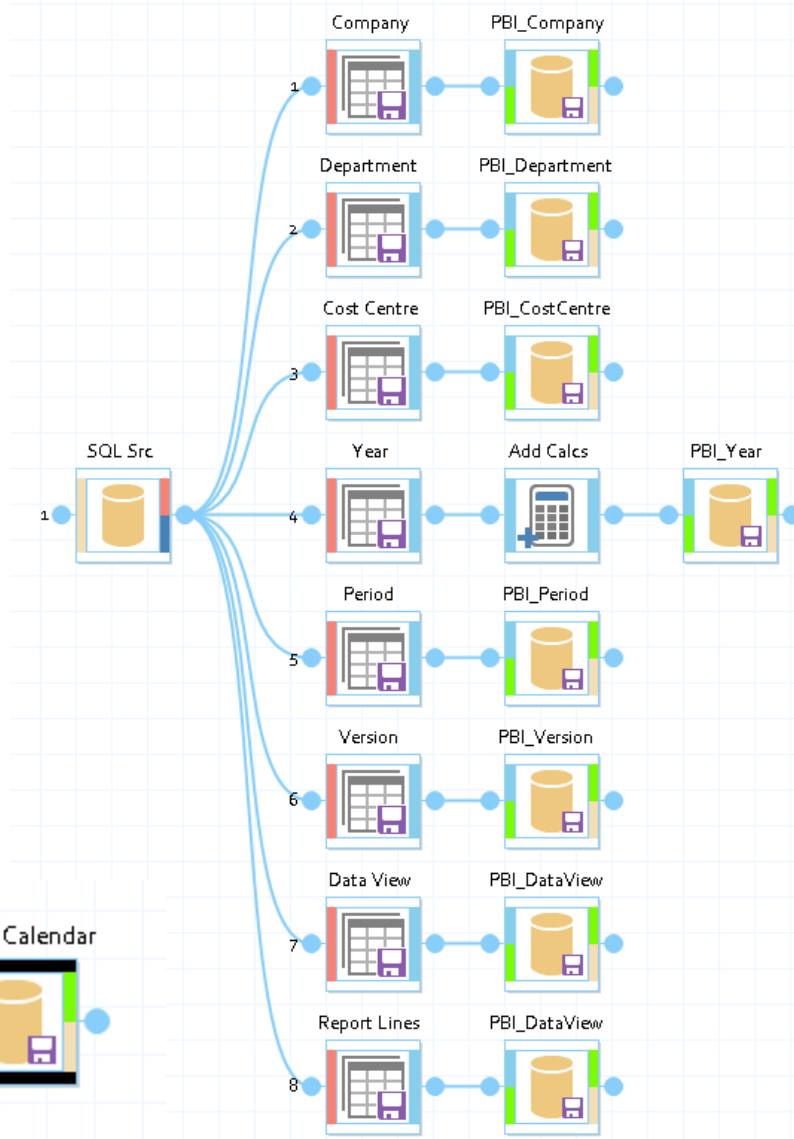
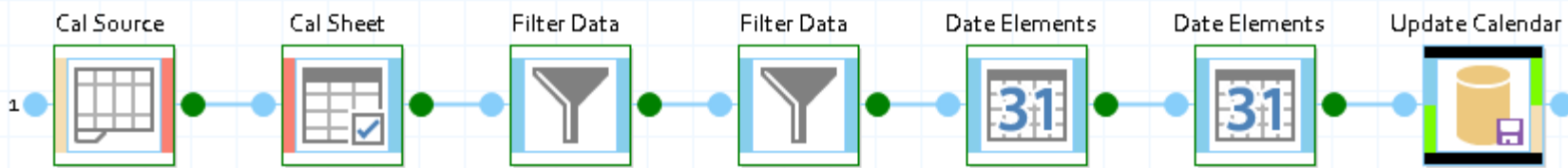
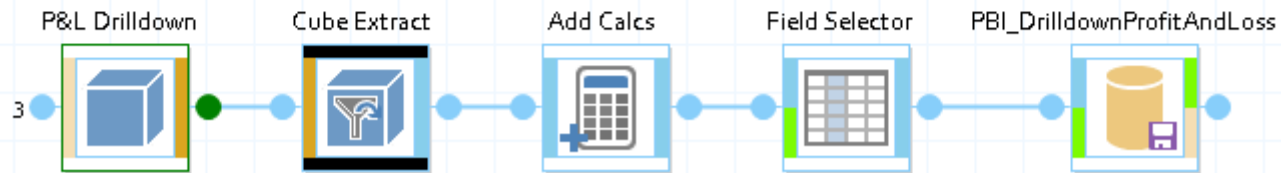
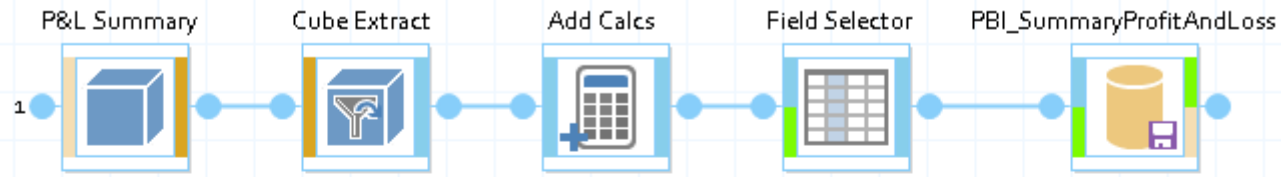
Power BI Architecture – EiB Analytics



EiB AppStudio

- Design To Optimally Extract & Load Data From Finance Cube
- TB & P&L & BS
- Inherits Business Logic
- Multi Company
- Live or Import

EiB AppStudio Design



Power BI App

00. EiB Financial Analytics - Power BI App

EiB Financial Analytics - Sag... ^

Main Menu

- Trial Balance Analysis
- P&L Summary Act v Bud
- P&L Drilldown Act v Bud
- P&L Trend Report By Period
- High Income Accounts
- High Expenditure Accounts
- Multi Year Trends
- Monthly & YTD Trends By Acc...
- Variance Trends Inc & Exp Su...
- Decomposition Tree
- 360 Degree Analysis
- Q&A

← Go back



Year: 2016

Period: Dec

Filters

EiB Financial Analytics Sage 200 Power BI App

Trial Balance	Profit & Loss Summary Act v Bud	Profit & Loss Drill Down Act v Bud	Profit & Loss Detailed Trend By Period	High Income Accounts	High Expenditure Accounts
Multi Year Trends	Monthly & YTD Trends By Account	Variance Trends Income & Expense	Decomposition AI Analyses	360 Degree Analysis	Q&A

Going The Extra Mile Design

00. EiB Financial Analytics - Power BI App

EiB Financial Analytics - Sag... ^

Main Menu

Trial Balance Analysis

P&L Summary Act v Bud

P&L Drilldown Act v Bud

P&L Trend Report By Period

High Income Accounts

High Expenditure Accounts

Multi Year Trends

Monthly & YTD Trends By Acc...

Variance Trends Inc & Exp Su...

Decomposition Tree

360 Degree Analysis

Q&A

← Go back

High Income Generating Accounts

Year: All | Company: All | Cost Centre: All | Department: All

Data View | Income Items | Version: Sage 200 Budget

Navigation: [Icons]

Filters: [Icon]

Period: Dec

Company	Period	Base Amount	Summary Acc	Year
C001 - Company 1	Dec	712,634.19	Sales	2016
Company Org	Dec	712,634.19	Sales	2016
C001 - Company 1	Dec	883,411.65	Sales	2015
Company Org	Dec	883,411.65	Sales	2015
C001 - Company 1	Dec	244,328.26	Trading Expenses	2015
Company Org	Dec	244,328.26	Trading Expenses	2015
C001 - Company 1	Dec	206,000.00	Overheads	2015
Company Org	Dec	206,000.00	Overheads	2015
C001 - Company 1	Dec	37,865.36	Overheads	2016
Company Org	Dec	37,865.36	Overheads	2016
C001 - Company 1	Dec	21,596.66	Trading Expenses	2016
Company Org	Dec	21,596.66	Trading Expenses	2016
C001 - Company 1	Dec	0.37	Non-Trading Income	2015
Company Org	Dec	0.37	Non-Trading Income	2015
Total		3,211,672.98		

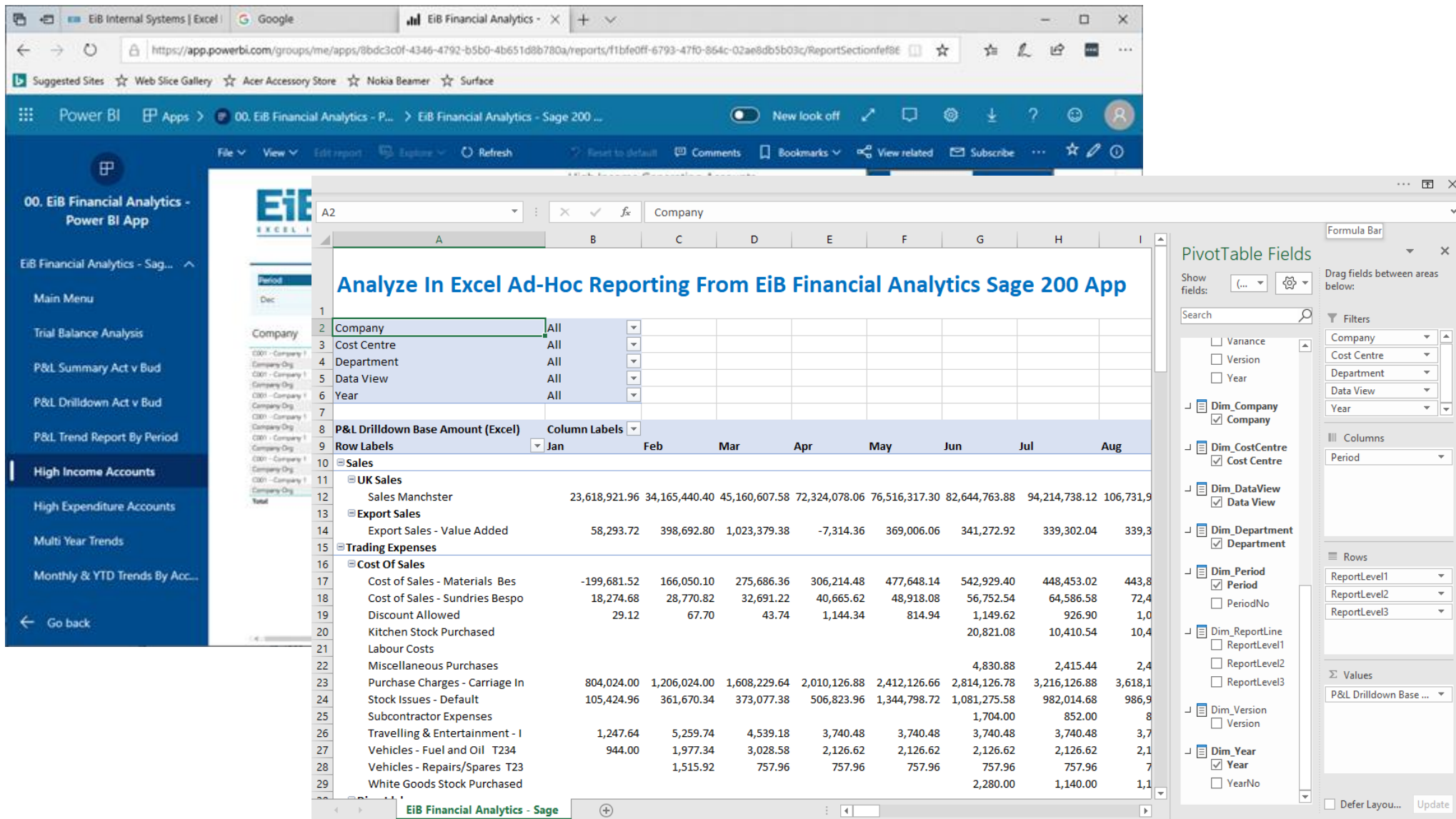
Cost Centre	Period	Base Amount	Summary A
SAL - Factory/Warehouse	Dec	801,460.50	Trading Expenses
Ret - Manchester Retail Outlet	Dec	410,000.00	Sales
SAL - Factory/Warehouse	Dec	400,000.00	Overheads
SAL - Factory/Warehouse	Dec	384,823.30	Sales
LON - London	Dec	380,480.08	Sales
BIR - Birmingham	Dec	318,770.50	Sales
MAN - Manchester	Dec	285,843.40	Sales
SAL - Factory/Warehouse	Dec	283,751.58	Sales
ZZZ - N/A	Dec	95,121.38	Sales
ZZZ - N/A	Dec	87,196.02	Trading Expenses
SCO - Scotland Retail Outlet	Dec	53,858.70	Sales
SAL - Factory/Warehouse	Dec	39,783.36	Overheads
SAL - Factory/Warehouse	Dec	38,646.68	Trading Expenses
Ret - Manchester Retail Outlet	Dec	37,442.74	Sales
ADM - Administration	Dec	34,188.28	Overheads
ADM - Administration	Dec	12,000.00	Overheads
INS - Installation/Design	Dec	4,546.64	Trading Expenses
BIR - Birmingham	Dec	1,134.84	Overheads
LON - London	Dec	354.68	Overheads
MAN - Manchester	Dec	269.56	Overheads
ADM - Administration	Dec	0.74	Non-Trading Incom
SCO - Scotland Retail Outlet	Dec	-400,000.00	Trading Expenses
Total		3,211,672.98	

Cost Centre	Period	Base Amount	2nd Level A
SAL - Factory/Warehouse	Dec	801,460.50	Cost Of Sales
SAL - Factory/Warehouse	Dec	400,000.00	Salaries/Wages
SAL - Factory/Warehouse	Dec	384,823.30	UK Sales
LON - London	Dec	380,480.08	UK Sales
BIR - Birmingham	Dec	318,770.50	UK Sales
MAN - Manchester	Dec	285,843.40	UK Sales
SAL - Factory/Warehouse	Dec	283,751.58	UK Sales
Ret - Manchester Retail Outlet	Dec	212,000.00	UK Sales
Ret - Manchester Retail Outlet	Dec	200,000.00	Export Sales
ZZZ - N/A	Dec	95,121.38	UK Sales
ZZZ - N/A	Dec	87,196.02	Cost Of Sales
SCO - Scotland Retail Outlet	Dec	53,858.70	UK Sales
SAL - Factory/Warehouse	Dec	39,783.36	Salaries/Wages
Ret - Manchester Retail Outlet	Dec	37,442.74	UK Sales
SAL - Factory/Warehouse	Dec	35,236.68	Direct Selling
ADM - Administration	Dec	30,690.00	Salaries/Wages
ADM - Administration	Dec	12,000.00	Rent & Rates
INS - Installation/Design	Dec	4,546.64	Direct labour
ADM - Administration	Dec	3,498.28	Rent & Rates
SAL - Factory/Warehouse	Dec	3,410.00	Direct labour
BIR - Birmingham	Dec	1,134.84	Rent & Rates
LON - London	Dec	354.68	Rent & Rates
MAN - Manchester	Dec	269.56	Rent & Rates
ADM - Administration	Dec	0.74	Other Income
SCO - Scotland Retail Outlet	Dec	-400,000.00	Direct labour
Total		3,211,672.98	

User Aids

- Confirm Button
- Reset Button
- Menu Button

Going The Extra Mile – Ad Hoc Potential



The screenshot displays a Power BI report titled "00. EiB Financial Analytics - Sage 200 ..." overlaid on an Excel spreadsheet. The Excel spreadsheet shows a PivotTable with the following data:

Company	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Sales								
UK Sales								
Sales Manchster	23,618,921.96	34,165,440.40	45,160,607.58	72,324,078.06	76,516,317.30	82,644,763.88	94,214,738.12	106,731.9
Export Sales								
Export Sales - Value Added	58,293.72	398,692.80	1,023,379.38	-7,314.36	369,006.06	341,272.92	339,302.04	339.3
Trading Expenses								
Cost Of Sales								
Cost of Sales - Materials Bes	-199,681.52	166,050.10	275,686.36	306,214.48	477,648.14	542,929.40	448,453.02	443.8
Cost of Sales - Sundries Bespo	18,274.68	28,770.82	32,691.22	40,665.62	48,918.08	56,752.54	64,586.58	72.4
Discount Allowed	29.12	67.70	43.74	1,144.34	814.94	1,149.62	926.90	1.0
Kitchen Stock Purchased						20,821.08	10,410.54	10.4
Labour Costs								
Miscellaneous Purchases						4,830.88	2,415.44	2.4
Purchase Charges - Carriage In	804,024.00	1,206,024.00	1,608,229.64	2,010,126.88	2,412,126.66	2,814,126.78	3,216,126.88	3,618.1
Stock Issues - Default	105,424.96	361,670.34	373,077.38	506,823.96	1,344,798.72	1,081,275.58	982,014.68	986.9
Subcontractor Expenses						1,704.00	852.00	8
Travelling & Entertainment - I	1,247.64	5,259.74	4,539.18	3,740.48	3,740.48	3,740.48	3,740.48	3.7
Vehicles - Fuel and Oil T234	944.00	1,977.34	3,028.58	2,126.62	2,126.62	2,126.62	2,126.62	2.1
Vehicles - Repairs/Spares T23		1,515.92	757.96	757.96	757.96	757.96	757.96	7
White Goods Stock Purchased						2,280.00	1,140.00	1.1

The PivotTable Fields task pane on the right shows the following configuration:

- Filters:** Company, Cost Centre, Department, Data View, Year
- Columns:** Period
- Rows:** ReportLevel1, ReportLevel2, ReportLevel3
- Values:** P&L Drilldown Base ...

The PivotTable Fields task pane also shows the following dimensions and their selected fields:

- Dim_Company:** Company
- Dim_CostCentre:** Cost Centre
- Dim_DataView:** Data View
- Dim_Department:** Department
- Dim_Period:** Period
- Dim_ReportLine:** ReportLevel1, ReportLevel2, ReportLevel3
- Dim_Version:** Version
- Dim_Year:** Year

Analyze In Excel

- Made Possible
- Enhanced Model Design

Going The Extra Mile – Phone ?

EiB Financial Analytics - Sage 200 Power BI Model - V1.0 - Power BI Desktop

File Home Insert Modeling **View** Help Demo User

Themes: Aa Aa Aa Aa Aa Aa

Page view Phone layout Scale to fit Mobile Gridlines Snap to grid Lock objects

360 Degree Analysis

Year: 2016 Company: All Cost Centre: All

Data View: CP Act Mvt Pick Summary Accounts To Analyze: Sales

Base Amount by Company and Summary Account

Summary Account	Amount
Company 1	11.2M
Company Org	11.2M

Base Amount by Department and Summary Account

Summary Account	Amount
VAL - Value Added Goods	13.4M
BES - Bespoke Kitchens	5.0M
COM - Kitchen Components	2.4M
ZZZ - N/A	1.0M
ADM - Administration	0.8M

Base Amount by Cost Centre and Summary Account

Summary Account	Amount
SAL - Factory/Warehouse	6.6M
LON - London	4.1M
BIR - Birmingham	4.0M
MAN - Manchester	3.4M
SCO - Scotland Retail Outlet	0.1M
Ret - Manchester Retail Outlet	0.1M
ZZZ - N/A	0.1M

Base Amount by Account and Summary Account

Summary Account	Amount
UK Sales	13M
Export Sales	0.1M

Visualizations: Remove all visualizations

PAGE 12 OF 20

UPDATE AVAILABLE (CLICK TO DOWNLOAD)

EiB Power BI Analytics – Sage 200

● Complete Financial Reporting Solution

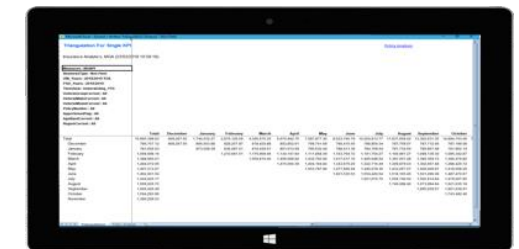
- EiB ReportStudio Excel Reports
- Power BI Dashboards
 - Web, Mobile
 - Live or Import Modes

● Only Optimised Solution For Sage 200 Cubes

- MS Power BI Import Not Scalable Or Practical, EiB Import More Scalable
- MS Power BI Direct Connection
 - Performant, But Needs IT Involvement – Enterprise Gateway, SQL 2017+

● Massively Cost Effective

- Cost More To Do Internally
- Dovetails Into Any Existing Power BI Deployment
- Can Be Extended To Other SQL Cubes





EiB Financial Analytics and Power BI – Better Together **Excel in Business**

www.excelinbusiness.com