

Power User Days

BY THE COMMUNITY, FOR THE COMMUNITY

Tips & Tricks of a Power BI (Premium) Implementation in a Financial Institute

Nicky van Vroenhoven
Lead BI Developer @ Van Lanschot Kempen



Microsoft Office Lens app

Android

iOS



Microsoft Office Lens app

without Lens



with Lens



Agenda

- Organisation
- Data management
- Reporting
- Collaborate
- Premium / Support
- Lessons learned
- Next steps



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Van Lanschot Kempen

a specialised wealth manager

Van Lanschot Kempen, a union of two specialized financial boutiques, is the oldest independent financial institution in the Netherlands.

Our mission is the creation and preservation of wealth of our customers.



**Specialised in the future
since 1737**



evi



Everyone deserves Evi



Van Lanschot
SINCS 1737



Pronounced personally



Kempen



turning dedication into
dazzling prospects

Show results from:

2019 ▾

Half-year results

Trading updates

Client assets

€ 97.3 billion

Net result

€ 83.6 million

Balance sheet total

€ 14.5 billion

Underlying net result
(excluding expenses related
to Strategy 2020 investment
programme and restructuring
charges)

€ 92.5 million

Common Equity Tier 1 ratio
(CET1 fully loaded, excl.
retained earnings)

22.7 %

Efficiency ratio

75.5 %



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Who Am I?

Nicky van Vroenhoven

- MS BI Developer
- 10 years BI consultancy
- 2 years at VLK
- Blog on nickyvv.com
- @NickyvV

The screenshot shows the homepage of the blog "SQL, BI and stuff". The title "SQL, BI and stuff" is prominently displayed in large blue letters. Below it is a subtitle: "Blogging about SQL Server, (Power) BI and other things I find interesting." A navigation bar includes links for Home, My Reading Journey, Speaking, and About. The main content area features a post titled "The New Power BI Workspace Viewer Role Explained" dated Thursday, August 29, 2019. The post discusses the rollout of a new Viewer role in Power BI workspaces. Below the post is a table titled "Power BI Service" showing feature releases:

Feature	Release type	Date
End user consumption		
Power BI Home	General Availability	September 2019
App navigation	Public Preview	May 2019
Management, collaboration, and distribution		
New workspace experiences: General availability and migration	General Availability	May 2019
Shared and certified datasets	Public Preview	June 2019
Viewer role	General Availability	July 2019
Upgrade classic workspaces to the new workspace experience	General Availability	September 2019

A note at the bottom states: "On June 25 the Power BI team announced the rollout of the new Viewer role for Power BI workspaces." To the right of the main content, there's a sidebar with an "RSS" link and a "Subscribe to this blog..." button. A sidebar also displays links to "Full Lifecycle API Management" and the "MuleSoft™ Official Site".

Who Are You?

I am a...

- Business/End user
- BI dev/consultant
- IT (admin)
- DBA
- Manager
-

I work with...

- Power BI Desktop
- PowerBI.com
- App Workspaces
- Apps
- Power BI Premium

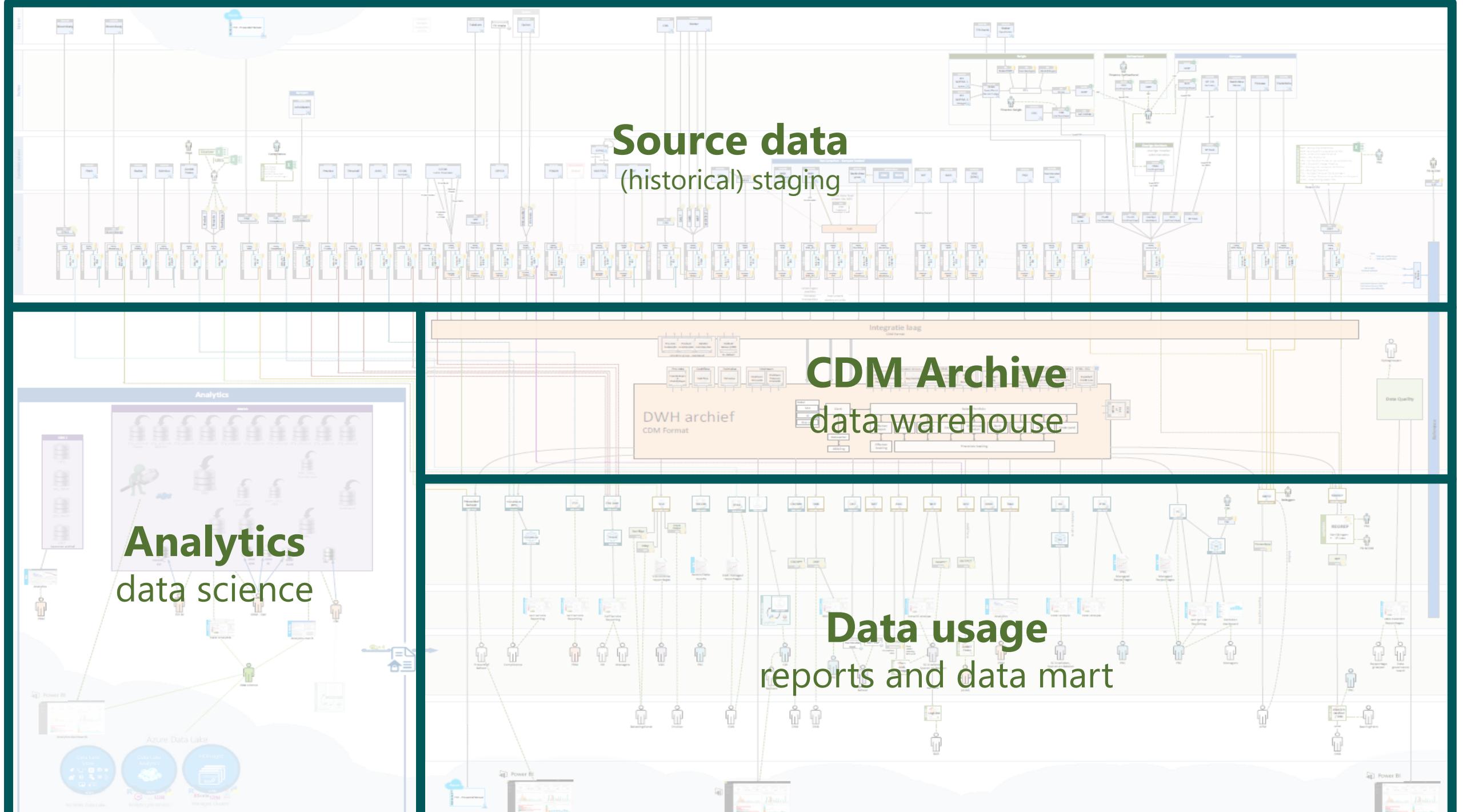


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Agenda

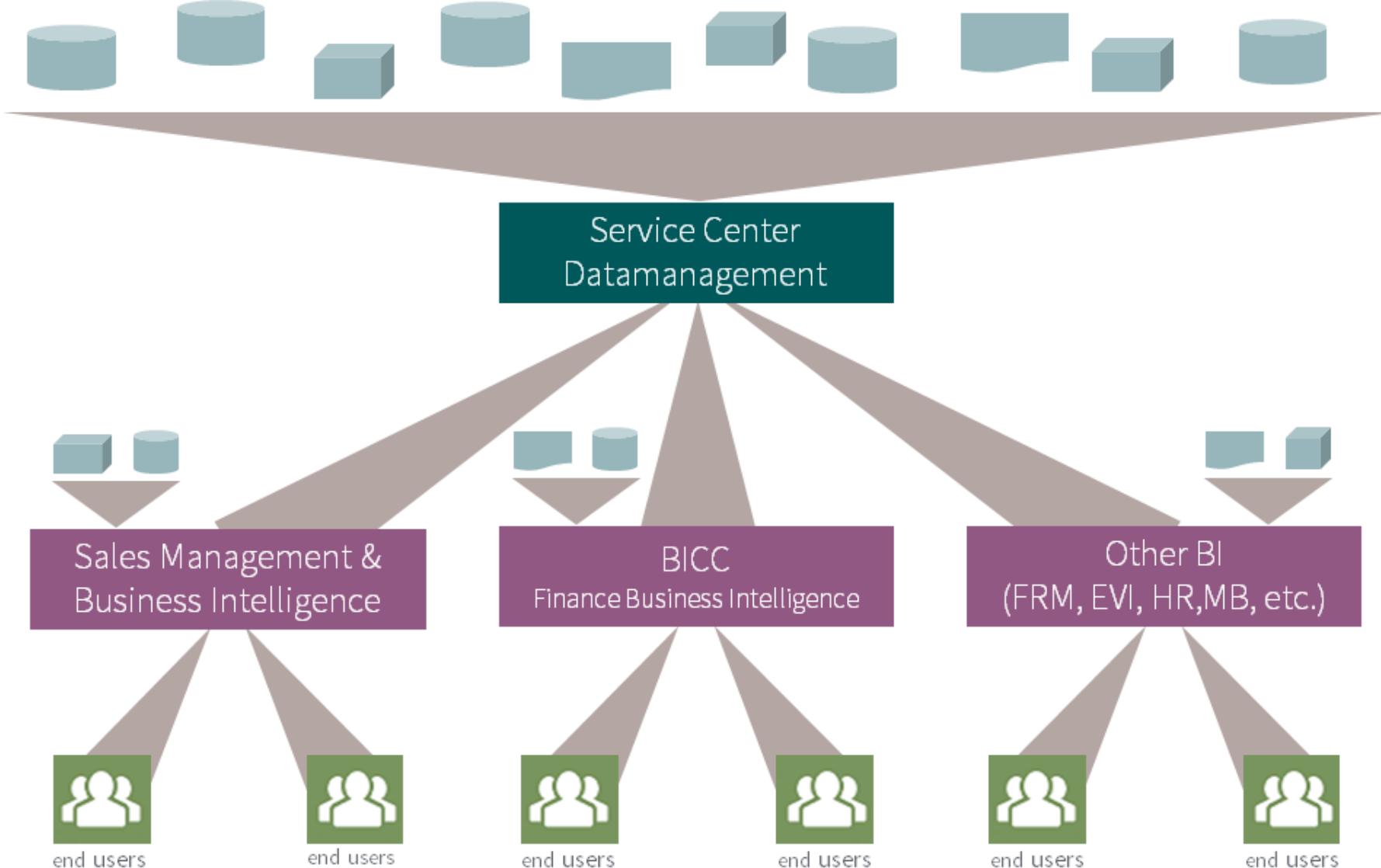
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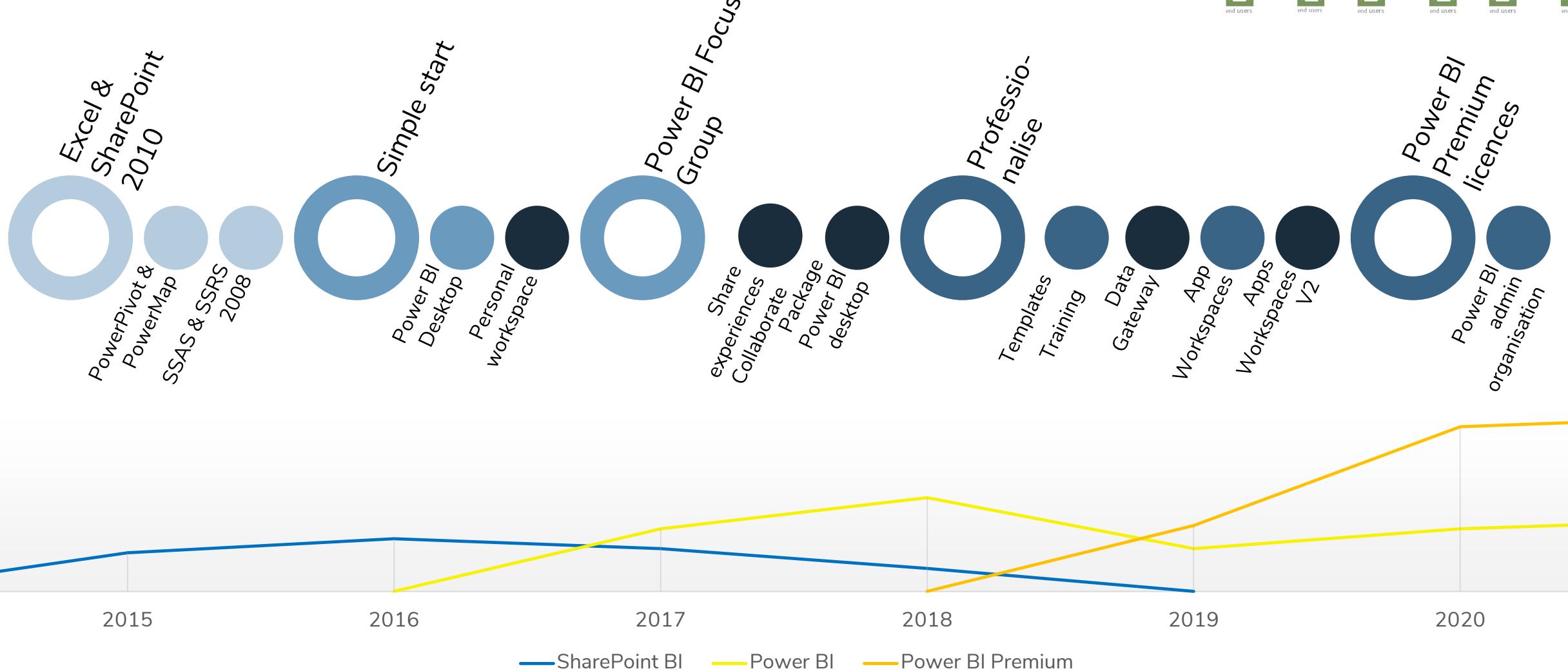


BI Organisation

Central expertise center
Specialist BI teams



History and progress



BI in a financial institute

BI at a bank has its challenges

- Regulatory requirements and constraints
 - National and European supervisors (AFM, DNB, ECB)
- Sensitive data
 - Privacy laws: AVG (Dutch) and GDPR



IT versus Business Structure _{vs} regulation _{vs} freedom

Searching for the best of both worlds:

- IT for structure and repeatability
- Business for knowledge, usability and flexibility



IT versus Business Structure _{vs} regulation _{vs} freedom



Trust is key

IT versus Business Structure _{vs} regulation _{vs} freedom

Monitor to prevent
proliferation



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A woman with black hair, wearing a purple blazer over a green top, stands prominently in the center of the frame. She is positioned in an office setting with several people working at desks and computer monitors displaying data. A large window is visible in the background.

Power BI in practice

Power BI at VLK

- Templates
 - VLK, VL, Kempen, Evi



Power BI at VLK

DIAH 2016 Performance

Revenue and Units by MonthName

MonthName	Revenue	Units
Jan	2M	8K
Feb	2.2M	7.5K
Mar	4.8M	8.5K
Apr	4.8M	8.2K
May	4.2M	7.8K
Jun	3.8M	7.2K

Manufacturer Revenue

Manufacturer	Revenue
Aliqui	3.060.103,94
Currus	1.245.000,33
Natura	3.633.708,01
Pirum	2.956.279,78
VanArsdel	11.334.261,02
Total	22.229.353,07

Revenue by Segment

Segment	Revenue Percentage
Moderation	36,84%
Convenience	29,33%
Extreme	17,04%
Productivity	8,51%
Select	4,02%
All Season	1,1%
Youth	0,0%

Revenue by State and Segment

Power BI at VLK

DIAH 2016 Performance

Revenue and Units by MonthName

Year: 2016

Revenue and Units by MonthName

Manufacturer	Revenue
Aliqui	3.060.103,94
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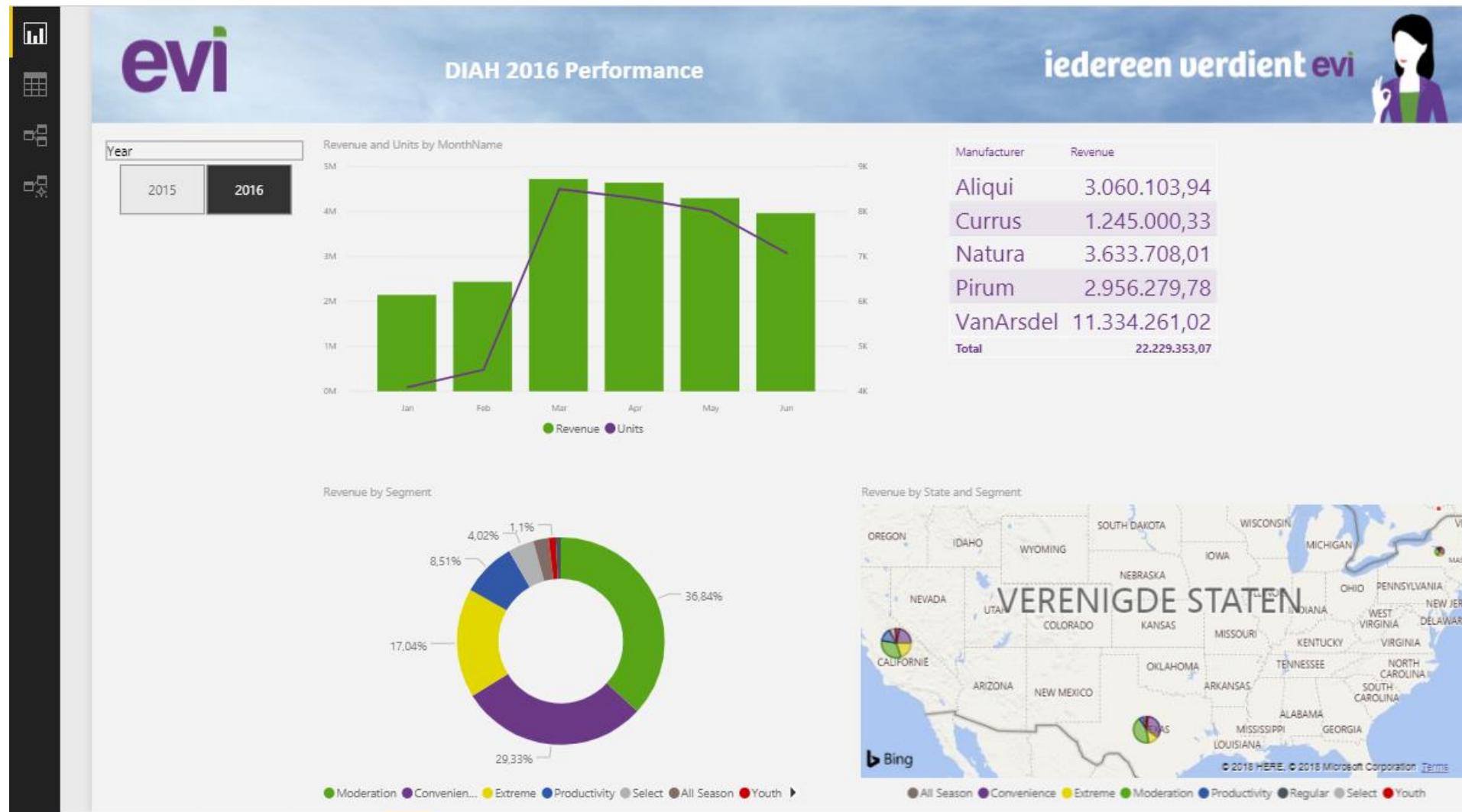
Revenue by State and Segment

Map of the United States showing revenue distribution across states.

© 2016 HERE. © 2016 Microsoft Corporation. Bing



Power BI at VLK



Weekoverzicht suspicious cases

Huidige week

2018-47

11/19/2018 11/25/2018

WeekStart

WeekEnd

relatielnr

All ▾

segment

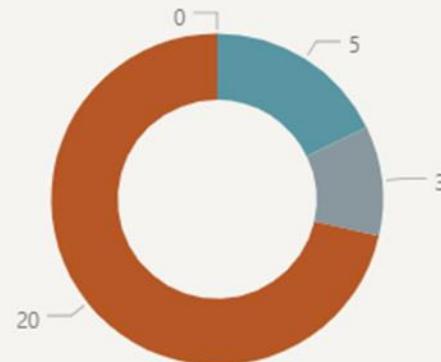
All ▾

weeknr

2018-36 ▾

- # bet.trans
- # eff.trans
- # keywords
- # watchlist

Aantal alerts per type



Aantal cases per score



Feedback toevoegen

ID: Week: 2018-36 Save

Verdacht

unshor: case gegenereerd ivm gebruik woorden Panama papers in meeting

Data Quality dashboard in Power BI

VAN LANSCHOT KEMPEN

Brondatum: 2019-03-13

Prioriteit

- Low
- Medium
- TOPS

Jaar

- 2019

Maand naam

- March

Hits per Normsteller

Normsteller	Hits
IFRS9	36030
DGS	804
RegRep	640
VIA	73
MIFIDII	56
CDD	27
SCDM	4
IRB	2
MngRep	1

Aantal 0 hits per Normsteller

Normsteller	Aantal 0 hits
RegRep	10
IFRS9	9
MngRep	6
IRB	5
MIFIDII	5
SCDM	4
CDD	3
BB	2
VIA	1
DGS	0

Unique Hits per Oplosgroep

Oplosgroep	Hits
SCDM_FB	35688
ClientSupport	1526
Accounting	343
InternalControl	27
EVI	1

Verwisselingen

Brondatum: 2019-02-19

Prioriteit

- High
- Low
- Medium
- TOPS

Oplosgroep

- BijzonderBeheer
- ClientSupport
- InternalControl
- SCDM_FB

Normsteller

- CDD
- DGS
- IFRS9
- IRB
- MIFIDII
- RegRep
- SCDM
- VIA

Validatielijstnaam

Search

Aantal rijen: 24

Validatielijstnaam

Oplosgroep	Prioriteit	Norm	Indicator	12 nov 18	19 feb 19
SCDM_FB	TOPS	0	↓	16	15
SCDM_FB	TOPS	0	↓	10	7
ClientSupport	TOPS	100	↓	2	0
ClientSupport	TOPS	10	↑	6	104
ClientSupport	TOPS	10	↓	15	10
ClientSupport	TOPS	100	↓	984	625
ClientSupport	TOPS	50	↓	82	65
ClientSupport	TOPS	0	↑	0	1
ClientSupport	TOPS	0	↓	5	0
InternalControl	TOPS	5	↓	4	3
InternalControl	TOPS	5	↑	0	1
InternalControl	TOPS	6	↓	12	12
InternalControl	TOPS	5	↑	1	1
ClientSupport	TOPS	n	↑	n	1252
Totaal					1994

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Power User Days

Power BI at VLK

- Templates
 - VLK, VL, Kempen, Evi
- Packaging PBI Desktop monthly
- Workspaces, Apps and Onedrive for versioning
- Custom Branding in the service



Custom branding in PowerBl.com

Admin portal

The screenshot illustrates the custom branding process in the Power BI Admin portal and its application across the platform.

Admin portal: On the left, a sidebar lists various administrative options: Usage metrics, Users, Audit logs, Tenant settings, Capacity settings, Embed Codes, Organizational visuals, Dataflow settings, Workspaces, and Custom branding. The "Custom branding" option is selected, highlighted with a grey background.

Custom branding page: This page allows users to customize the look of Power BI for their organization. It includes sections for "Logo" (with upload and delete buttons), "Cover image" (with upload and delete buttons), and "Theme color". A preview area shows the current branding, featuring a circular profile picture of a person, the "VAN LANSCHOT KEMPEN" logo with a tree icon, a bell icon, and a search icon.

Branded Power BI interface: The bottom half of the screenshot shows the Power BI interface with the new branding applied. The header features the "VAN LANSCHOT KEMPEN" logo. The main dashboard displays a greeting message: "Good afternoon, Nicky". Other visible elements include a "Snelle toegang" (Quick access) button, an "Activiteit" (Activity) button, a search bar, and a navigation menu on the left.



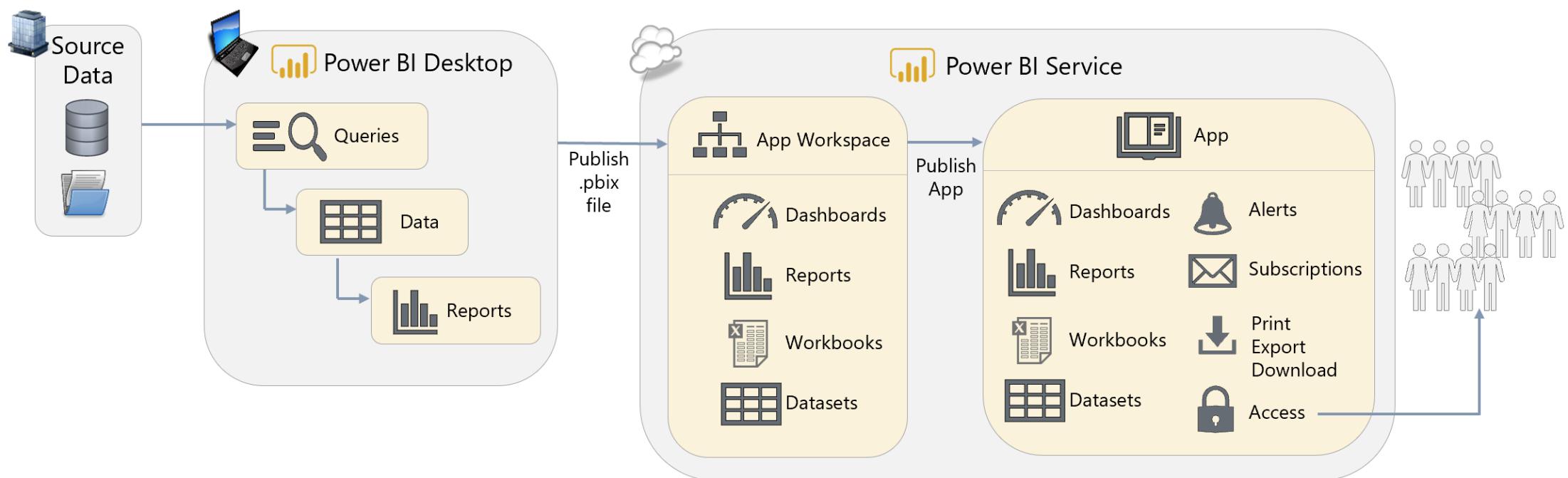
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- **Collaborate**
- Premium / Support
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Power BI Workspaces and Apps



Advantages

- **Workspace = staging**
- **App = prod**
- **Clear for end users**
- **No Pro licence with Premium**

Ongoing changes will be made in the App Workspace area by an author, then published to an App when finalized.

Content is consumed (read-only) in the App by the user population

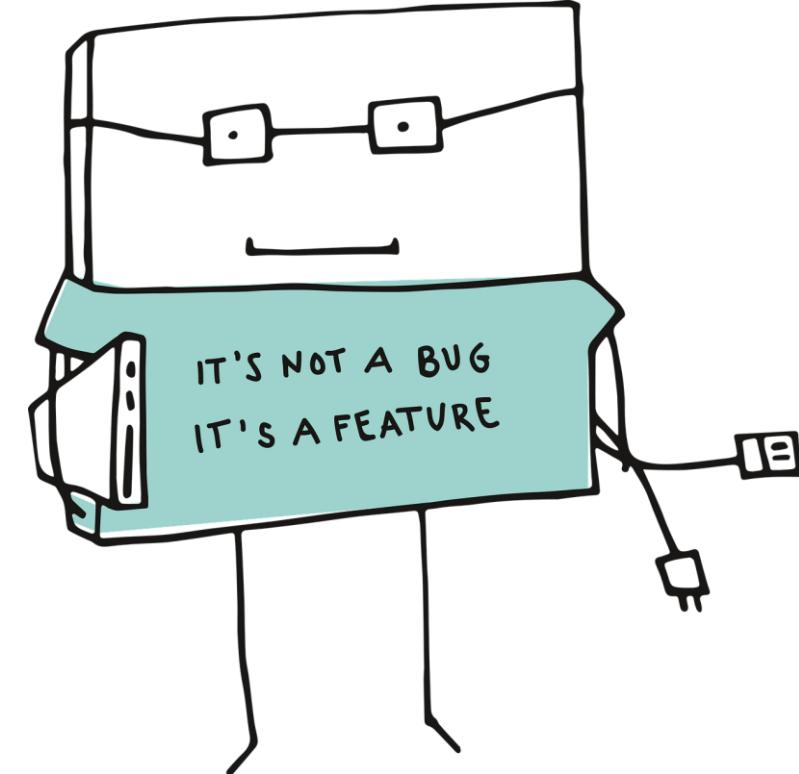
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Power BI Premium



Professionalise Power BI administration

- Audit via Identity Management
- 3 AD-groups per workspace
 - Admins, Members, Viewers
- New workspaces (migrate classic ones)
- Power BI super users create workspaces



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Personalized help button

Admin portal

Usage metrics

Users

Audit logs

Tenant settings

Capacity settings

Embed Codes

Organization visuals

Dataflow settings (preview)

Workspaces

Help and support settings

- ▲ Publish "Get Help" information

Enabled for the entire organization

Users in the organization can go to internal help and support resources from the Power BI help menu.



Enabled

Training documentation:

https://vlkco.sharepoint.com/:f/s/ts-BI/EqbhZW2ovNBGoiqtsKCGwMQBeDJCATlu_03B

Discussion Forum:

<https://vlkco.sharepoint.com/Sites/ts-BI/Lists/Power%20BI%20Forum/AllItems.aspx>

Licensing requests:

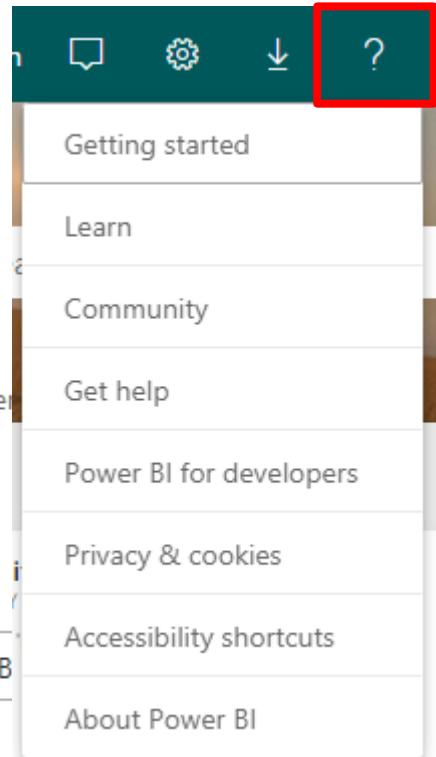
<https://servicedesk.vlkintern.nl/tas/public/ssp/content/serviceflow?unid=9f20456baae34>

Help Desk:

<https://servicedesk.vlkintern.nl/tas/public/ssp/content/serviceflow?unid=0ec6987f62654>

Apply to:

- The entire organization
- Specific security groups



Premium Capacity Metrics App

≡

- Home (preview)
- Favorites >
- Recent >
- Apps
- Shared with me
- Workspaces >
- My Workspace ▾

Search content...

Get apps



Power BI Premium Capa...

MAR 18, 2019



Get more apps from Microsoft AppSource



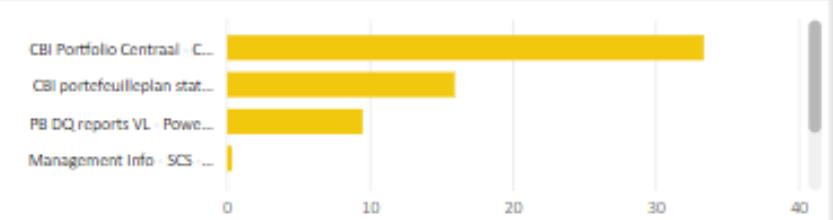
Selected Capacity: All | Date Range: 3/18/2019 - 3/25/2019 | Refreshes | Query Durations | Query Waits | Datasets | Learn more

Last Refresh: 3/25/2019 3:00:00 PM

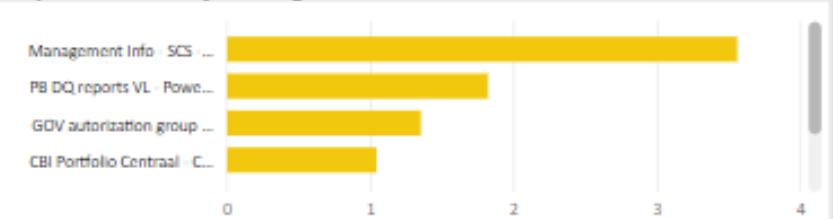
Refreshes

Workspace/Dataset	Total Count	Reliability	Avg Wait Time (minutes)	Max Wait Time (minutes)	Avg Duration (minutes)	Max Duration (minutes)
CBI Analytical Suite	32	84.38%	1.00	2.87	12.97	58.47
CBI portefeuilleplan status VKK & Activiteiten	9	44.44%	0.36	1.32	15.92	22.35
CBI Portfolio Centraal	8	100.00%	1.04	2.63	33.33	58.47
GOV autorization group members	15	100.00%	1.35	2.87	0.34	0.43
GPA - Incremental Refresh - Dev	1	100.00%	0.00	0.00	0.13	0.13
PBI - Refresh Sample	1	100.00%	0.00	0.00	0.13	0.13
PowerBI-DataQuality	7	100.00%	1.82	2.38	9.48	18.50
PB DQ reports VL	7	100.00%	1.82	2.38	9.48	18.50
SCS - Transactions - MiFid	56	100.00%	3.56	25.58	0.34	0.93
Management Info	56	100.00%	3.56	25.58	0.34	0.93
Total	96	94.79%	2.54	25.58	5.21	58.47

Top 5 Datasets by Average Duration (minutes)



Top 5 Datasets by Average Wait Time (minutes)



Hourly Refresh Count and Memory Consumption (GB)



Hourly Average Refresh Wait Times (minutes)

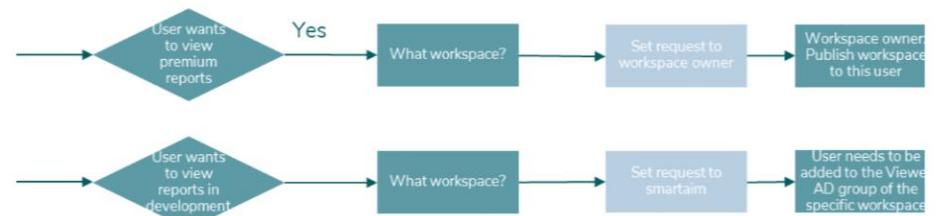


Monitoring licences

Premium capacity

- Free viewers
- Premium capability

License workflow



A screenshot of the Microsoft Power BI service interface showing a list of workspaces. The top navigation bar includes 'Clipboard', 'External data', 'Insert', 'Custom visuals', 'Themes', 'Relationships', 'Calculations', and 'Share' tabs. On the left, there are filters for 'State' (Active, Deleted, Removing) and 'Type' (Group, PersonalGroup, Workspace). The main table lists 17 workspaces with columns for Name, Type, User Count, Report Count, Dashboard Count, State, and Description.

Workspace name	Type	User Count	Report Count	Dashboard Count	State	Description
Advanced Analytics	Workspace	7	1	2	Active	Workspace for Advanced Analytics
Architectuur	Group	0	0	0	Active	
Azure Consumption Insights	Workspace	0	4	4	Removing	Azure Consumption Insights
Azure Enterprise Costs Pilot App Workspaces	Group	0	0	0	Removing	
Azure Reports & Dashboards	Workspace	1	2	0	Active	Workspace tbv Azure Reports & Dashboards
BB - Preventief Beheer	Workspace	7	2	0	Active	Preventief Beheer Tool
BI FRC & GRM	Group	0	1	0	Active	
Bijzonder Beheer - Management informatie	Workspace	9	3	0	Active	App workspace voor Management Informatie tbv Bijzonder Beheer
Budget Vs. Forecast Report	Workspace	1	2	0	Active	
CBI Analytical Suite	Group	0	27	4	Active	
CBI Testomgeving	Group	0	15	0	Active	
Client Experience Center	Group	0	0	0	Active	
Client Solutions	Group	0	0	0	Active	
CS EFG Data and Analytics	Group	0	0	0	Active	
D&I Kennisteam Staven	Group	0	0	0	Active	
Data Science	Group	0	2	0	Active	
DGB leden	Group	0	0	0	Active	
DIAD - Rac	Workspace	0	1	1	Deleted	This is DIAD workspace

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Knowledge is key

- Power BI (re)training
- BI Focus Group
 - Started with changing content
 - Now with 2 tracks:
 - End users
 - In-depth



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Additional Premium Capacity



2019

2020

Lessons:

- Monitor performance
- (We should be) Optimising data models

CAPACITY NODE	CORES	BACKEND CORES	FRONTEND CORES
P1	8 v-Cores	4 cores, 25 GB RAM	4 cores
P2	16 v-Cores	8 cores, 50 GB RAM	8 cores
P3	32 v-Cores	16 cores, 100 GB RAM	16 cores



Best Practices

- 38 Best practices (Power BIble, adjusted to our needs)
 - DAX, Maintenance/Developing, Modelling, M-Query, Reporting & Visualization, Sharing & Security
- Naming conventions
 - Workspaces: *Department – Team – Name*
 - Gateway Data Sources: *Type – Server – Database*
 - Power BI Idea: Add the ability to Sort and Categorize Gateway Data Sources
- OneDrive for version control
- Monitor Premium capacity
- Choose your Azure region wisely
- Disconnect the dataset from report development



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Roadmap and a look into the future

The present is always on the move; this is called future...

Already started:

- Automatic dataset refresh (PowerShell)
- App workspace creation and pro license workflow



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Roadmap and a look into the future

The present is always on the move; this is called future...

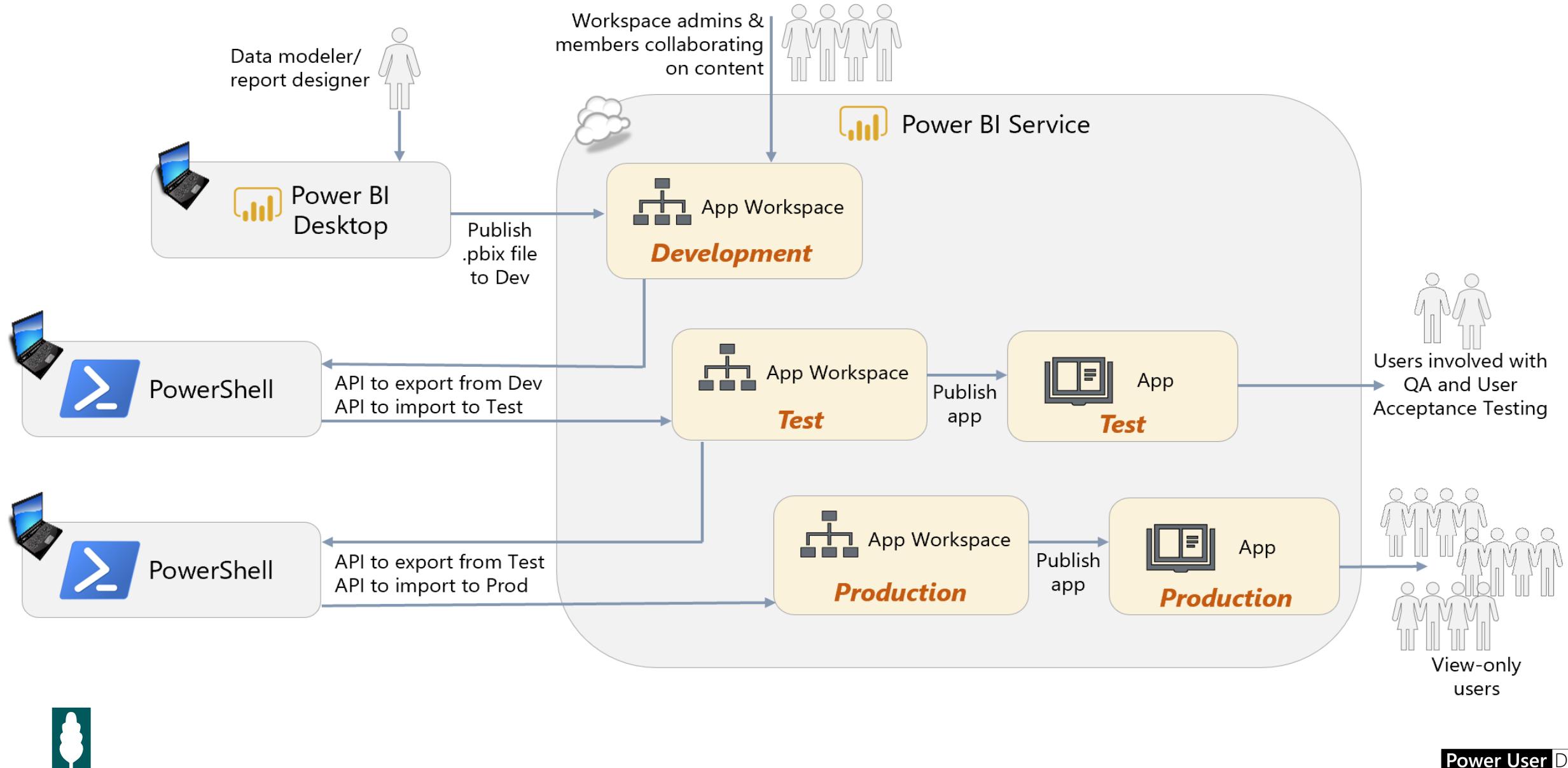
To do:

- New workspace migration (Microsoft)
- Check use cases of dataflows and PowerApps
- Long term logging (Premium) and monitor usage
- Development Pipeline / Continuous Delivery



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Roadmap – development pipeline



Power BI (Premium) resources

- Power BI Premium FAQ
 - <https://docs.microsoft.com/en-us/power-bi/service-premium-faq>
- Whitepaper: Deploying and Managing Power BI Premium Capacities
 - <https://docs.microsoft.com/en-us/power-bi/whitepaper-powerbi-premium-deployment>
- Power BI Premium: Licensing and Capacity Made Easy
 - <https://dawgdata.com/power-bi-premium-licenses-and-capacity-made-easy/>
- Whitepaper: Planning a Power BI Enterprise Deployment
 - <https://aka.ms/pbienterprisedeploy>
- Whitepaper: Power BI Premium
 - <https://aka.ms/pbipremiumwhitepaper>
- All Power BI whitepapers:
 - <https://docs.microsoft.com/en-us/power-bi/whitepapers>
- Power BI Best practices: Power BIble
 - <https://www.linkedin.com/pulse/power-bible-jeroen-luitwieler/>
- Power BI Idea for sorting Gateway Data Sources
 - [Add the ability to Sort and Categorize Gateway Data Sources](#)
- [Pixabay.com for free images](#)



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Thank you and let's connect!

n.vanvroenhoven@vanlanschotkempen.com
@NickyvV

