

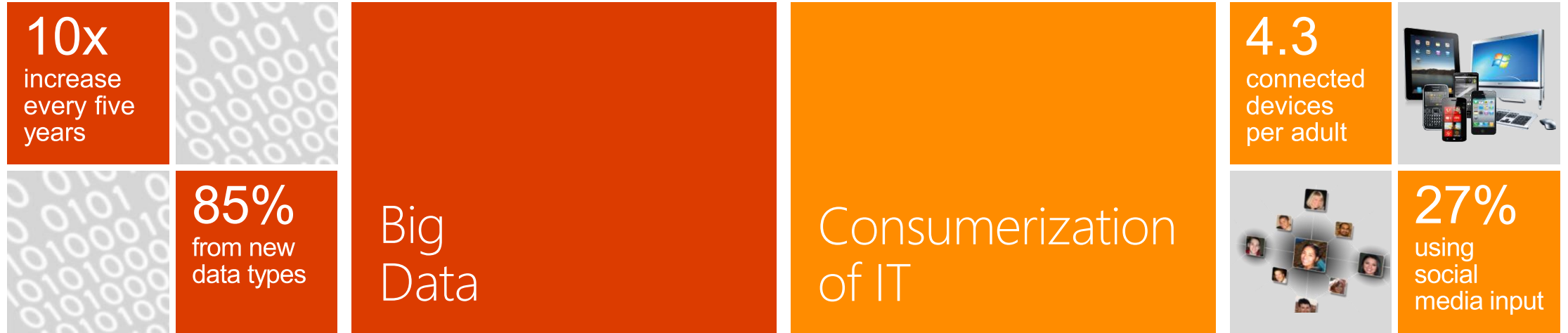


**POWER BI**

**AN INTRODUCTION**

Marcus Harvey & An Nguyen | April 2019

# The world of data is changing



“By 2015, organizations that build a modern information management system will outperform their peers financially by 20 percent.”

– Gartner, Mark Beyer., “Information Management in the 21st Century”



# The NFP sector is increasingly under pressure to do more with less

There is a pressing need for the NFP sector to do things differently. Government is changing the way they work with the sector. Corporates and philanthropic trusts are also changing the way they work with NFPs. Supporters increasingly want to understand how their contributions make a difference. Digital technologies help NFPs respond to these changes. They can drive productivity, improve efficiency and service delivery effectiveness, allowing organisations to adapt and respond to these changes.

Government	Funding	Supporter engagement
<p><b>Government is looking for ways to reduce spending</b></p> <p>Governments want new models which devolve greater responsibility to the NFP sector and reduce traditional levels of funding. They also increasingly require demonstrable outcomes from funding commitments.</p> <p><b>This creates pressure on NFPs to become more efficient, competitive and sophisticated in measuring impact and outcomes.</b></p>	<p><b>Traditional sources of funding are shifting</b></p> <p>Corporates now more commonly seek alignment between their operations and social outcomes. Further, crowd sourcing through social media has made it easier to establish a social enterprise.</p> <p><b>NFPs who rely on traditional forms of funding are under threat at multiple levels. There is an increased need for NFPs to demonstrate alignment to corporate goals, as well as re-invent themselves to decrease dependence on traditional funding sources.</b></p>	<p><b>Supporters increasingly want to see the impact of their investment</b></p> <p>The public now expects far more information about the project the funding is being sought for and will actively engage through social media to do this. Social media is growing as a key factor in supporter engagement strategies, particularly as today's youth become the principal source of public investment for NFPs.</p> <p><b>NFPs are under pressure to maintain engagement with supporters to drive ongoing investment, and must harness the power of social media.</b></p>

## The need for overall efficiency drives the urgency for effective use of data and digital technologies

Historically NFPs have under-invested in digital technologies, with spending usually directed towards frontline service delivery. Without the right technology to drive supporter engagement, enable staff to deliver services efficiently, measure client and community outcomes and communicate success in a professional manner, organisations will be unable to compete.



# Most NFPs don't have good information at their fingertips

Analysis of our non-profit tech survey (Feb 2018, 385 respondents) showed:

- » 50% of organisations reported their system aren't capable of capturing information about client outcomes
- » 49% of organisations reported they can't easily get the information and reports from their systems they require to inform planning, improvement and reporting
- » 45% of organisations reported that they don't understand the outcomes they achieve over time and how they vary by client circumstances and situation



# Data analytics and insights



Outer West Social Services  
*Cases Demographics*



Total Cases  
**539**

Services

Total #  
**12979**

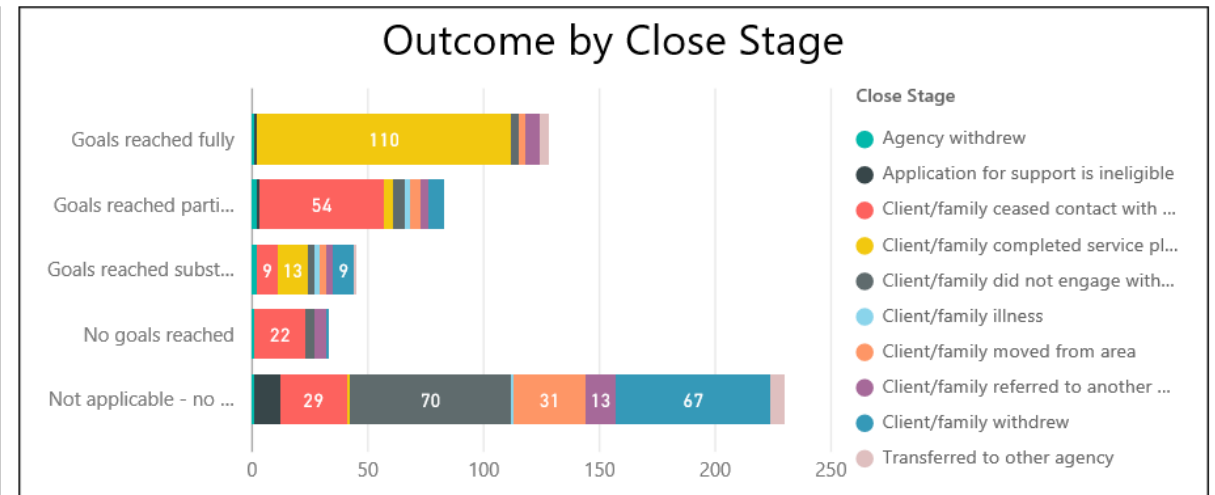
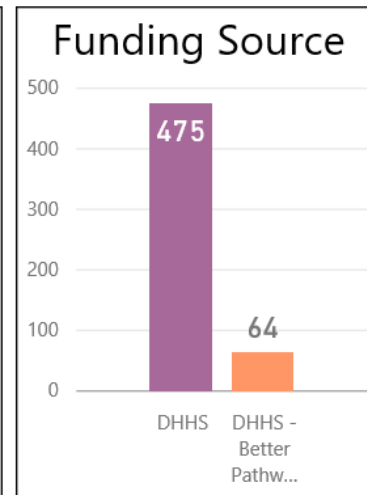
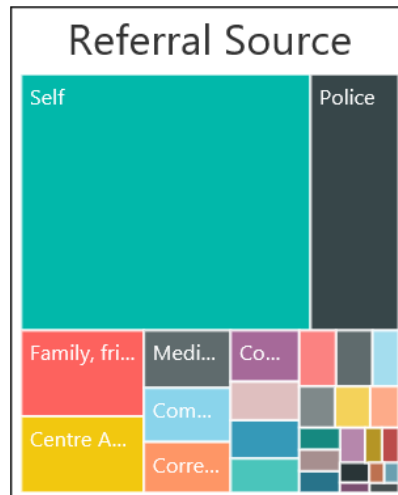
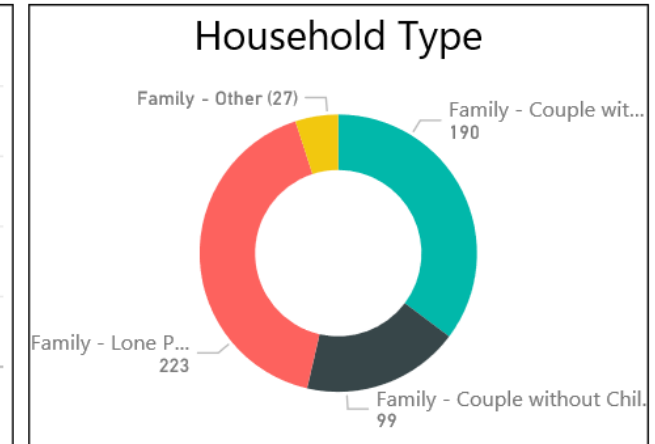
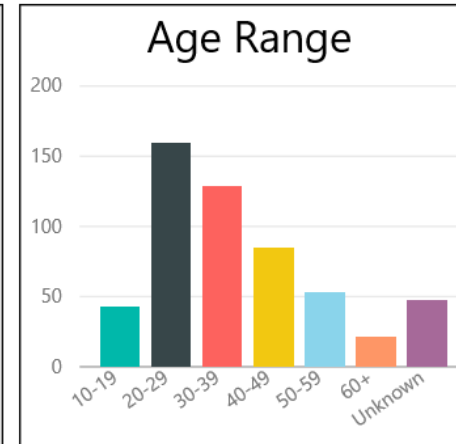
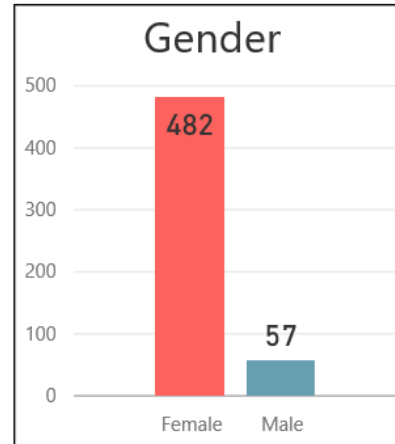
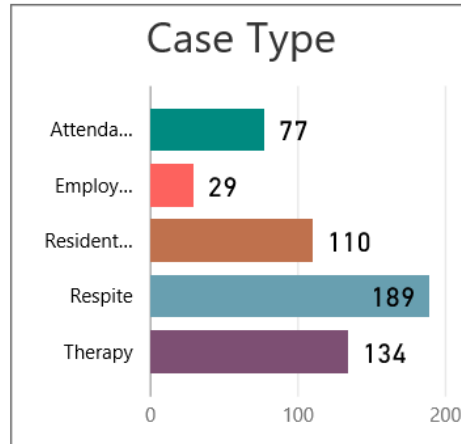
Avg #  
**24**

Total Hrs  
**9451**

Avg Hrs  
**17.54**

Travel Hrs  
**440.80**

Avg Travel  
**0.82**





**Power BI**



# A powerful new way to work with data

Self-service business intelligence and analytics with Excel and the power of the cloud

Analyze in Excel



Collaborate in Power BI for Office 365  
1 in 4 enterprise customers on Office 365



Discover



Analyze



Visualize



Share



Question



Mobility

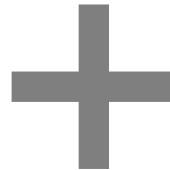


Scalable | Manageable | Trusted

# A powerful new way to work with data

Self-service business intelligence with familiar Excel and the power of the cloud

Analyze in Excel  
1 Billion Office Users



Collaborate in Power BI for Office 365  
Majority of NFPs with staff on Office 365



Discover



Analyze



Visualize



Share



Question



Mobility



Scalable | Manageable | Trusted



# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search



Mobile Access



Natural Language Questions

## Quickly create collaborative BI sites

Power BI for Office 365

My Power BI Michael Tejedor

### Power BI

Featured reports

#### Top Countries/Regions



Olympics (Sample)

Michael Tejedor | Updated: 01/24/2014

#### Average Daily Sales - Goal \$2,800



RetailBarSales (Sample)

Michael Tejedor | Updated: 01/24/2014

Featured questions



medal count by year for swimming vs athletics



1964 gold medalists from Italy and their medals



athletes that won swimming medals in Athens '04



show GDP for India, China and US by year '04

Documents + add



Shared with Everyone



# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search

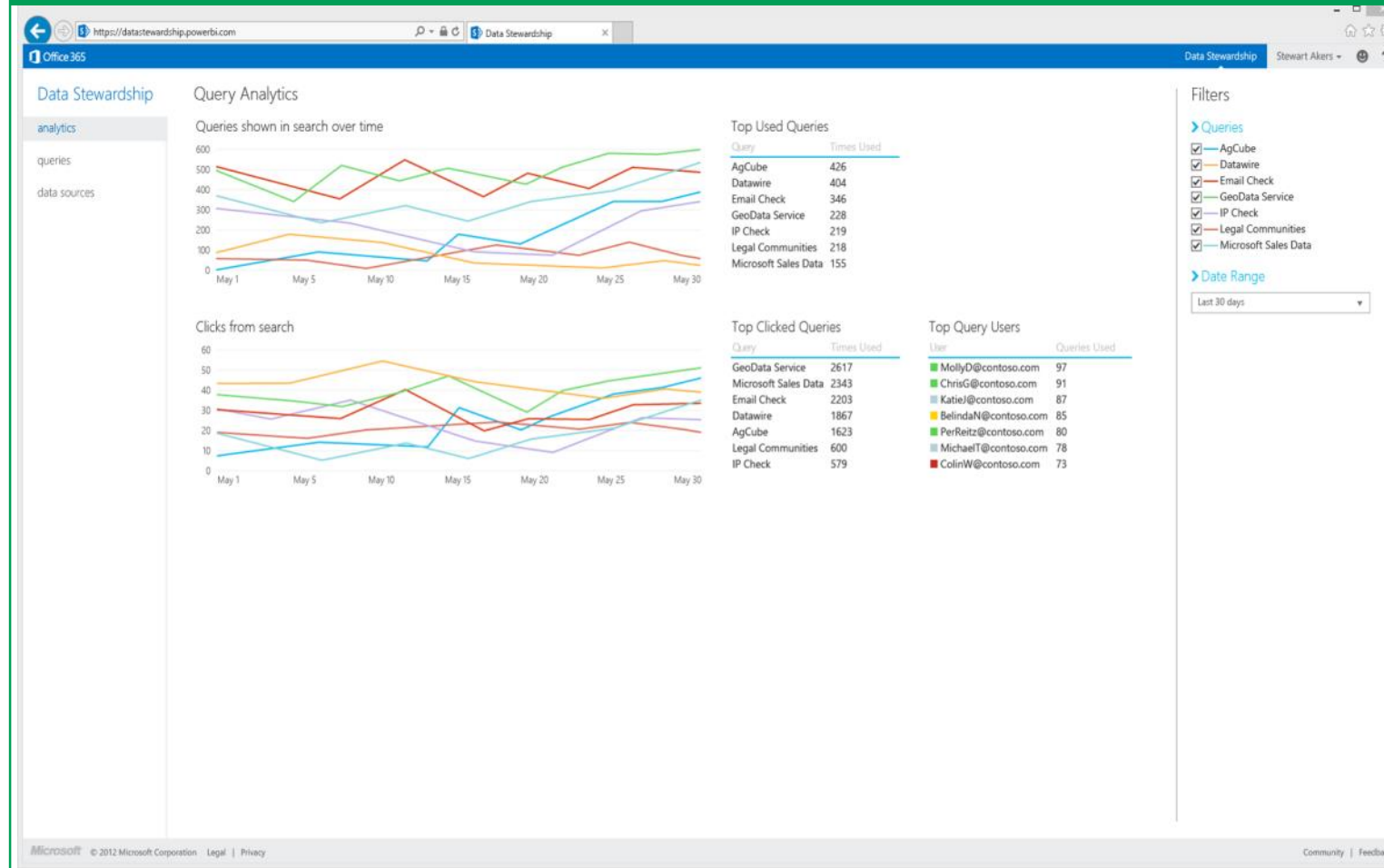


Mobile Access



Natural Language Questions

## Manage data queries for the team



# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search



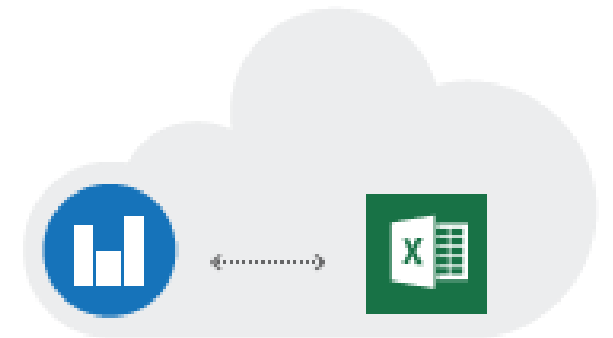
Mobile Access



Natural Language Questions

Keep reports up to date with scheduled data refresh

Cloud



Power BI  
for Office 365

Workbook

On Premise

On premise Database



Data Management Gateway  
Installed on-premises



# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search



Mobile Access



Natural Language Questions

## Maintain a data catalog of searchable data

Search for:

- Public Data
- Corporate Data
- Shared Queries

Version	ReleaseNotes	LanguageSpec	LibrarySpec	Version
120	12	13	V1GA	
167	21	15	V1GA	
179	25	14	V1GA	
140	22	34	V1GA	
131	19	29	V1GA	
46	7	5	V1GA	
76	6	7	V1GA	
131	10	21	V1GA	
131	20	27	V1GA	
104	14	24	V1GA	

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Date , 32BITVersion , 64BITVersion , ReleaseNotes , LanguageSpec , LibrarySpec , Version  
Last modified  
Thursday, October 17, 2013  
From  
quzhang@microsoft.com

Online Search  
Power BI  
92 results  
Social Buzz on Power BI - V2  
Power BI PROD Provision J...  
Partner Program Enrolment  
Social Data for #PowerBI  
Power Query StandAlone C...

# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search

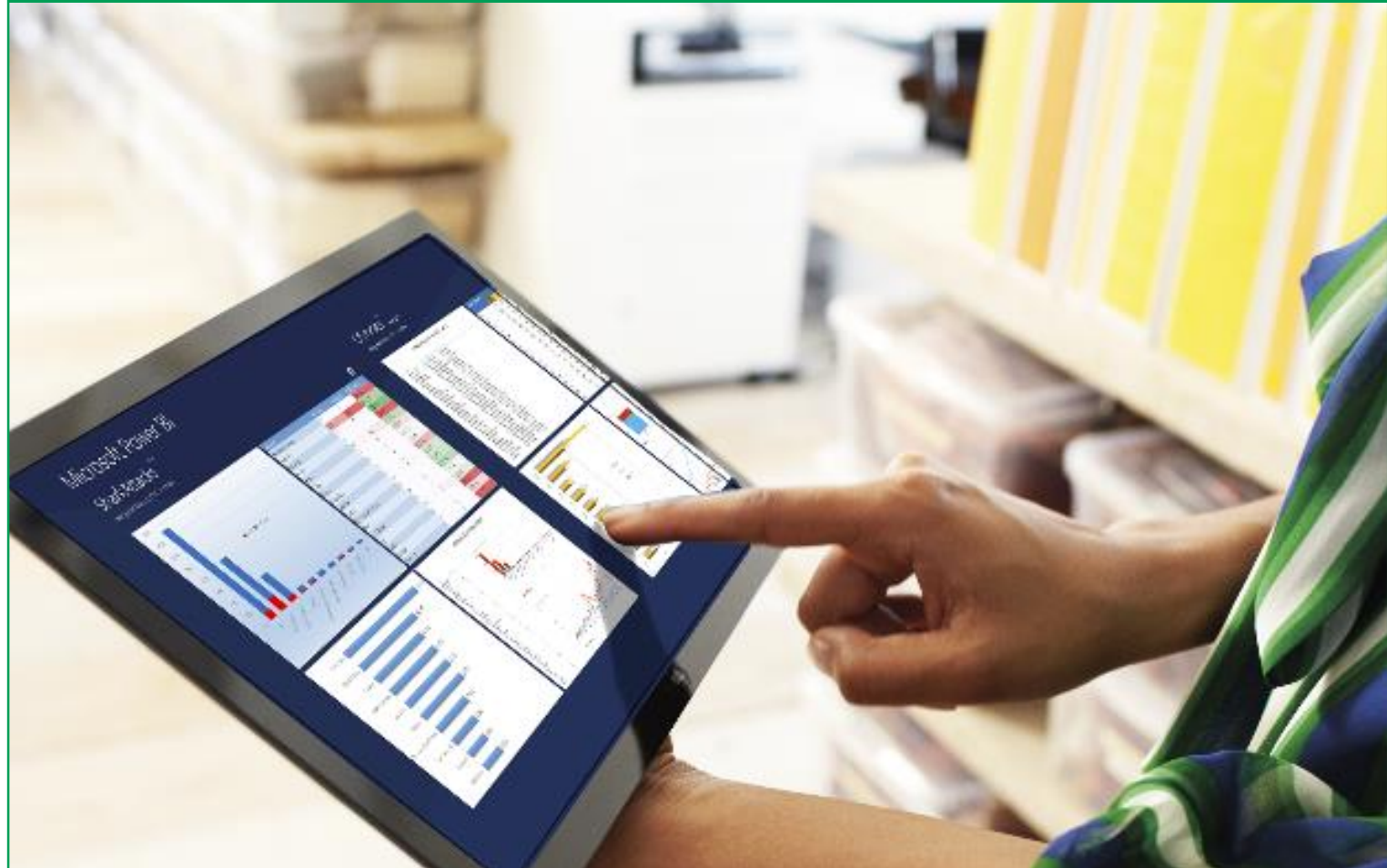


Mobile Access



Natural Language Questions

Stay connected with mobile access to your reports





# Share & collaborate with Power BI for Office 365



BI Sites



Shared Queries



Data Refresh



Data Search



Mobile Access



Natural Language Questions

## Ask questions of your data in natural language

Power BI for Office 365

Q&A

medal count by sport for france and china as bar chart sorted by country

Show medal count; sport; and areas that medalled in sport where area is france or china as stacked bar chart

Back to Power BI Site

results from

Olympics (Sample).xlsx

SHOW MORE

last modified

Feb 5, 2014 at 5:12PM

OPEN WORKBOOK

show as

table

map

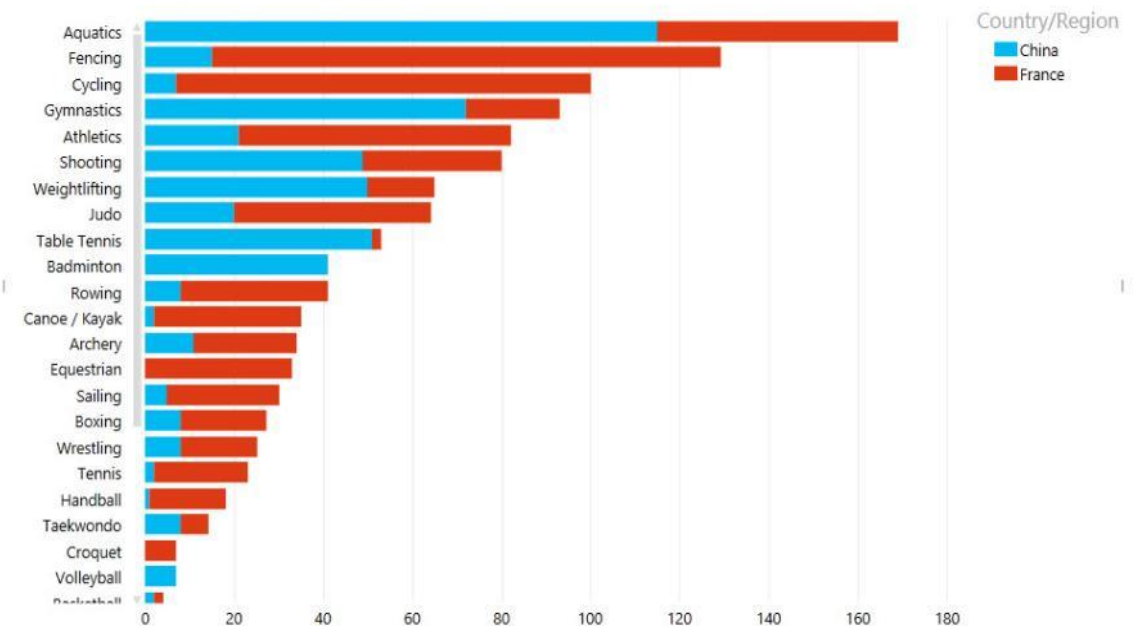
card

line chart

**bar chart**

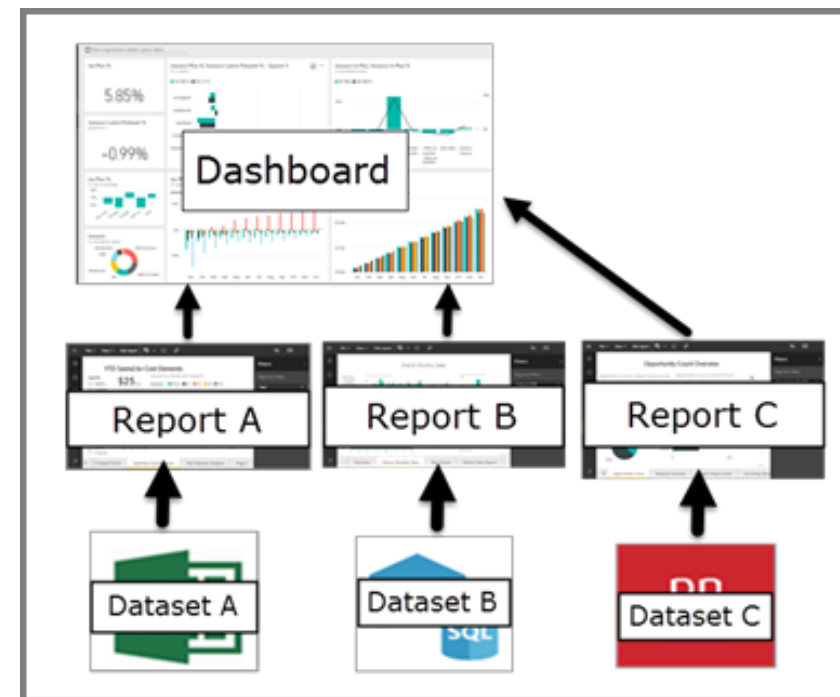
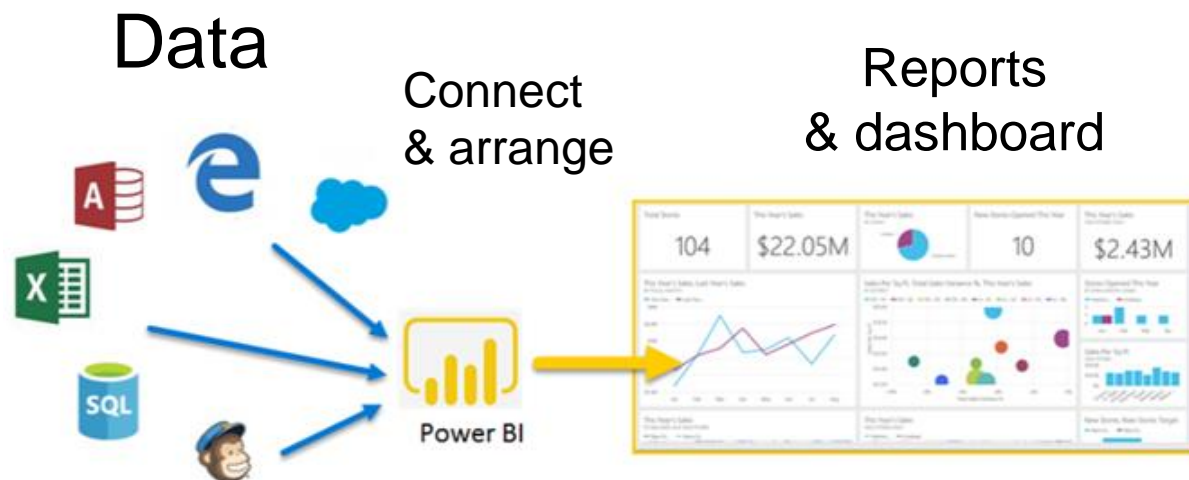
SHOW MORE

Medal Count by Sport, and Country/Region





# Key Power BI components



Power BI: free (NFP pricing)

Power BI Pro: \$4.10/user/month (NFP pricing)

Pie Charts  
Line graphs  
Histograms  
Scatterplots  
Tree maps

Waterfall  
Funnel charts  
Gauge charts  
Cards  
Geospatial



**DEMONSTRATION**

**POWER BI TO EXPLORE YOUR OUTCOMES**

**Note: This demonstration  
uses 'dummy' data**

# Specialist Housing Outcome Data

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T
1	Person ID	Alpha Code	Given Name	Family Name	Sex	Note ID	Date	Worker	Stage	Completed	Motivation	Self care	Managing	Social netw	Drug and a	Physical he	Emotional	Meaningfu	Managing	Offending
2	1234	ILNDR	Bill	Anderson	male	12198	29/09/2014	Angela Percy	0. Initial Assessment		4	4	4	3	10	4	4	7	4	10
3	1234	ILNDR	Bill	Anderson	male	12199	30/09/2014	Angela Percy	1st Review		6	5	5	6	10	6	6	6	5	10
4	1234	ILNDR	Bill	Anderson	male	13820	30/12/2014	Gerard Palk	2nd Review		2	3	5	4	4	5	6	7	6	6
5	1234	ILNDR	Bill	Anderson	male	13821	31/12/2014	Anthony Laura	3rd Review		3	4	5	6	7	7	6	5	4	3
6	1234	ILNDR	Bill	Anderson	male	13829	12/01/2015	Gerard Palk	0. Initial Assessment	Client	4	4	5	6	6	6	5	5	6	6
7	1334	ARRME	Gary	Armless	male	12880	3/12/2014	Training Eleven	1st Review		7	5	7	5	7	5	7	6	7	8
8	1334	ARRME	Gary	Armless	male	12837	3/12/2014	Training Eleven	0. Initial Assessment		2	5	1	3	6	1	1	1	3	2
9	1183	ROAGI	Frodo	Baggins	male	15134	1/10/2015	Training Eight	0. Initial Assessment	Client and	5	3	4	1	1	1	4	1	6	10
10	1183	ROAGI	Frodo	Baggins	male	15142	13/10/2015	Training Eight	1st Review		7	5		3	4	7	5	5	3	3
11	1183	ROAGI	Frodo	Baggins	male	15143	13/10/2015	Training Eight	2nd Review	Client and	7	7	5	5	3	3	7	7	5	3
12	1183	ROAGI	Frodo	Baggins	male	15145	13/10/2015	Training Eight	4. Ongoing Review		10	9	9	9	8	7	6	5	5	5
13	1183	ROAGI	Frodo	Baggins	male	15144	13/10/2015	Training Eight	3rd Review		9	8	7	6	5	4	3	2	1	2
14	1430	REASE	Fred	Bassett	female	13294	9/12/2014	Training Ten	1st Review		4	8	5	8	3	7	4	5	4	5
15	1430	REASE	Fred	Bassett	female	13300	9/12/2014	Training Ten	2nd Review		9	6	6	5	5	5	7	6	5	6
16	1430	REASE	Fred	Bassett	female	13286	9/12/2014	Training Ten	0. Initial Assessment		5	7	3	7	5	7	5	4	5	6
17	2017	ASEA2	Jasmine	Bean	female	14552	14/08/2015	Angela Percy	0. Initial Assessment	Client	8	6	6	7	6	5	6	3	4	2
18	2017	ASEA2	Jasmine	Bean	female	14553	14/08/2015	Angela Percy	1st Review	Client	7	8	7	6	7	6	5	5	6	5
19	1363	AREA2	Barbra	Bear	female	13012	5/12/2014	Training Two	1st Review		1	1	6	6	10	6	4		8	1
20	1363	AREA2	Barbra	Bear	female	13202	8/12/2014	Training One	0. Initial Assessment		4	2		6	0	2	7		2	0



**DEMO**

# Tips when starting out

1. Start learning PowerBI using a dataset that
  1. You are familiar with
  2. Is easy to access
2. Success with Power BI requires buy-in from the executive **and** management. This is most effective when you are solving a real problem for them that causes difficulty – e.g.
  - Tracking contract targets
  - Understanding outcomes
  - Managing workload/caseload
3. Initially your data is likely to be dirty. Develop a strategy & monitoring to fix the solution at the 'source' – e.g. when the data is initially entered
4. If you need resources (\$\$, expertise, access to staff or commitment to clean up data), ask for it once you have built support for the program
5. If your systems or data is a mess, think very carefully about how to navigate the likely pitfalls
6. If you don't have access your data, don't assume this will be simple
7. It is easy to get lost in the analysis. Best to start with a hypothesis, or a question
8. Don't be afraid to ask for help





# If needed, Infoxchange can help with

- » Developing a Power BI dashboard for your organisation
- » Developing an information systems strategy
- » Reporting on your activities, contract targets and outcomes
- » Taking your business Intelligence & analytics environment to the next level



# QUESTIONS AND DISCUSSION

Try Power BI at [www.powerbi.com](https://www.powerbi.com)

Search YouTube for “PowerBI”

**THANK YOU**

**PLEASE GET IN TOUCH**



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# Data

