Hello.

Irish Planning Permission Demo

Agenda

- A solution, at a glance
- Get Data
- Model Data
- Visualise data
- Collaborate
- Common challenges



Ben Watt. At your service!

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@benrebooted



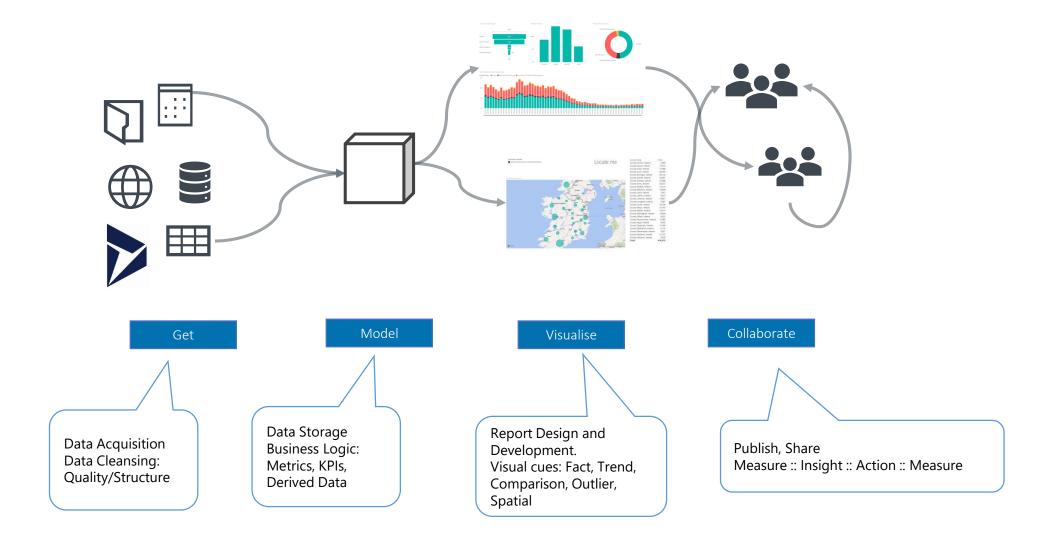
linkedin.com/in/benonline

What I do:

- Managing Director at Datalineo
- Microsoft MVP Data Platform
- Power BI: SQL/Azure/Power Platform
- Dublin PUG leader
- Event Co-Ordinator



A solution at a glance



Get Data. Acquire your source data



Today's Sample Source Data

- Central Statistics Office Planning Permission
- Wikipedia
- Dynamic dataset

Power Query

- Desktop ETL extract, transform, load
- Connect to on-premise and cloud data
 - Standard sources: RDBMS, SharePoint, flat-file
 - Web/URL, Azure blob/SQL/Data Lake/HDFS
 - Facebook, Google Analytics, GitHub, MailChimp, Active Directory
- Excel-style interface to wrangle your data

```
Planning Permission.txt - Notepad
File Edit Format View Help
"Planning Permissions Granted for New Houses and Apartments by Type of"
"Dwelling, Region and County, statistical indicator and Quarter"
           ',"2001Q1","2001Q2","2001Q3","2001Q4","2002Q1","2002Q2","2002Q3","2002Q4","2003Q1","2003Q2","26
" ","State'
     ","Planning Permissions Granted (Number)",5891,5157,5742,5220,4638,4192,5091,4303,4469,4752,5132,49
      ","Units for which Permission Granted (Number)",16492,16104,14515,13618,12105,15236,13501,10213,95
       Total Floor Area for which Permission Granted (000 Sq Metres)",2427,2402,2226,1997,1751,2104,195,
     ","Average Floor Area per Unit (Sq Metres)",147.2,149.2,153.4,146.6,144.7,138.1,144.6,149.1,153.9,
      ","Planning Permissions Granted (Number)",276,205,216,180,141,159,186,131,164,133,166,187,239,378,
       ,"Units for which Permission Granted (Number)",780,521,344,343,496,618,377,284,461,316,389,605,53;"
       ,"Total Floor Area for which Permission Granted (000 Sq Metres)",125,82,62,57,76,85,61,48,70,55,60
      ","Average Floor Area per Unit (Sq Metres)",160.4,158.2,179.4,165.0,152.7,137.2,162.4,168.8.152.1.
" ","Donegal"
       ,"Planning Permissions Granted (Number)",411,383,498,449,384,414,530,420,351,413,595,449,676,910,
      Units for which Permission Granted (Number)",862,609,1391,782,590,631,1014,700,513,769,1085,101;","
       Total Floor Area for which Permission Granted (000 Sq Metres)",137,103,216,124,99,109,171,114,89,",
       .,"Average Floor Area per Unit (Sq Metres)",159.4,169.5,155.5,158.1,168.2,173.3,169.0,162.3,173.7,
```

Model Data. Make it clever

Relationships

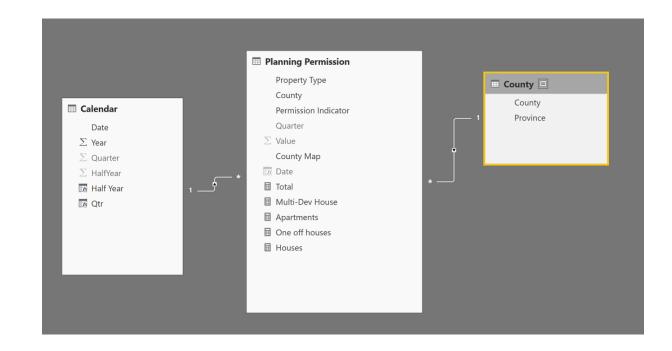
Business Intelligence (DAX)

Calculated Columns

- Derived Data
- Dynamic Calculations

Calculated Measures

- Aggregations: SUM, AVERAGE, MIN/MAX
- Time Intelligence



Tip!
Suggested free 2-3
hour online course
for Data Modelling:
SQLBI.com

Visualise Data. Finally the interesting part!

Design

If your modelling is correct, you enable more analysis

Best Practice

- Think of the customer
- Think of actions
- Trends, outliers, comparisons, facts
- Context

User Experience

- Reports/Dashboards
- Analysis/Exploration

Collaborate. Business Impact.

Deployment of your Work

Workspaces, sharing, scheduling

Business Process

Measure

- Define Business Impactful metrics
- Crucial metrics take precedence, alert-driven

Insight

- Drilldown, exploration
- Find root cause

Action

Business reaction to course correct

Measure

- Ensure measure impact of actions
- Short term monitoring



Some Challenges

Get Data

Power Query language

Model Data

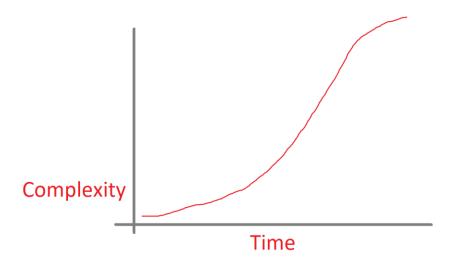
- Relationships. Learning Data Modelling
- DAX formulas

Visualise Data

- Data Viz consistency & best practice
- Insight, it's sometimes hide & seek

Insight & Collaborate

- It's the person not the role
- Be careful of the Wild West: Governance



Aaaaaaand... DONE!



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Info	Link
Today's Demo: Slides/PBIX File/Data	Ben's Github
Central Statistics Office	Source Data
FREE Data Modeling Course	<u>SQLBI.com</u>