• We are Heineken
• http://www.theheinekencompany.com/media/video-gallery/media-detail?id=E5967AC8494C466DAB44BC55BD088034
2017 FACT SHEET

COMPANY HIGHLIGHTS

SECOND LARGEST BREWER GLOBALLY BY REVENUE
€20.8 bn in 2016

WIN IN PREMIUM LED BY HEINEKEN®
3.7% organic growth in 2016

OWN AND SELL MORE THAN 250 BRANDS
Local and international beer and cider

BROAD GEOGRAPHIC COVERAGE
Heineken® brand is available in more than 190 markets

DIVERSE DEVELOPING MARKET EXPOSURE
66% of group beer volume and 50% of group operating profit (biota) in 2016

WORLD CLASS MARKETING

GLOBAL SPONSORSHIPS
UEFA CHAMPIONS LEAGUE

MORE THAN A RACE

INNOVATION
HEINEKEN 0.0%

DIGITAL MEDIA
#1 FACEBOOK FANS IN BEER BRANDS

RESPONSIBLE CONSUMPTION
MODERATE DRINKERS WANTED
Global Solutions
CoE ERP & Business Enablement

- Jan Klaver
  - MCE / Functional consultant
  - Front-end solutions

Jan Klaver is a MicroStrategy mobile specialist, with years of experience working in enterprise analytics. He currently works with Heineken, where he has helped build their mobile solution from the ground up. Jan also has extensive experience working with related technologies including MDM solutions and back end systems.
MSTR world – Going Mobile on MDX

17th of January 2018

• Mobile requirements
• Challenges
• From source to destination
• Pro’s & Con’s
• Tips
• Tricks
• Q&A

Jan Klaver
Our audience

- Heineken Board of Directors
- Executive Committee (including Regional/Finance Directors and their MT-members)

✓ Seated around the Globe
✓ Travelling
✓ Intensive use of iPads
Our Mobile solution requirements

Requirements:
• Having all company data at your fingertips with a maximum of three taps
• Instant performance
• Offline availability
• Reduction of carrying printed (static) reports
• Flexible, Branding to Heineken look & feel, adding new topics with ease

IT side:
• Maximum security
Our challenges

• When the project started, our single point of truth for data was available only in SAP BW

• Data was available at lower levels as well, requiring more clicks for the user if not solved differently

• Data to be presented did not always follow the same visual layout due to ‘Group’, ‘Regional’ or ‘Headoffice’ structures.
How did we solve these challenges?

• SAP BW experts created new SAP BW queries, which would allow us to have the data available at a maximum of three taps.
Immediate mapping of Schema attributes/facts to MDX sources is not possible, which makes MDX an ‘external source’.

A schema in ODBO (Ole DataBase for Olap) provides a grouping mechanism not supported by SAP BW or MicroStrategy.
• Data from an MDX source is directly read into standard MSTR dataset-objects (reports).

• Needs to be combined (data blending) at the document level if metrics are from multiple datasets.

• Other datasets (& sources) need to follow the MDX structure of the data.
Diagram 3: MDX provides support for unbalanced and ragged hierarchies. In other data sources, issues with presenting data on reports using these types of hierarchies is usually solved by complementing the unbalance or ragged version of a hierarchy. You need to do thorough testing of the Data Blending option on the document to avoid any omittance or differences.
Diagram 4: Once an MDX query is added to the MSTR environment, a **mapping** can be established with a **Schema** attribute. From that moment, MSTR security filters can be applied to the data returned via the MDX source. This concept could be applied to all MDX attributes, but requires data consistency across the mapped attributes (inner/equi join). **FACTS** however are **excluded from** the **mapping** option, which is why data required from MDX sources is treated ‘external’.
Pro’s and con’s

• PRO:
  • Structures to the dimensions/attributes are provided
  • A lot of complexity (consolidation/elimination) is handled already in SAP BW
  • MSTR Security filters can be applied, after you’ve created the equivalent of the (MDX)object in the MSTR Schema

• CON:
  • Unbalanced/Ragged hierarchies need to be ‘equal’ on two sides (MDX/MSTR schema), this requires a solid test before deciding to take this route.
  • MDX facts/metrics are separate from the MSTR Schema and cannot be found in the public metrics folder, but in a MSTR dataset, which needs to be blended in the document for cross-dataset calculations. This has a user/usage and performance impact.
Tips

• Try to minimize the number of datasets and local calculations in your documents. At some point in time, the performance is impacted negatively and you may face the user not accepting the solution.

• If you need to apply security filters on MDX attributes, be sure to have the Schema version of the attribute as well and perform the mapping (which changed the ID of the object in previous MSTR versions..). Only then start using it in reports. If you do it later, it will have a maintenance impact on reports using the ‘old’ ID’s.

• Solve current ‘backend’ issues (‘null’ values, (KPI)structures, ...) through modeling of the data (check/adjust Lookup tables).

• Treat the usage of MDX as a temporary solution until you have a proper Schema equivalent of accessing the data.
How can you solve this and what needs to be taken care of?
Tricks, trick 2: calculating YTD on desired levels (level metrics)

- To gain performance, we have a set of 'ITM' and 'YTD' metrics in the MDX query. YTD metrics are created as compound metrics in the MDX mapping layer to return their result on the required level. Sample:
  \[
  \text{RunningSum} < \text{BreakBy} = \{[\text{Struct}_\text{Consolidated}], \text{[Level 03]}, \text{[Calendar year Level 01]}\}, \text{SortBy} = ([\text{Period Level 01}]) > ([\text{OG ACT vs LY}])
  \]

- MSTR Olap functions can also be used to achieve the same, but require the analytical engine to perform the job. Sample:
  \[
  \text{RunningSum} < \text{BreakBy} = \{[\text{Struct}_\text{Consolidated}], \text{[Level 03]}, \text{[Calendar year Level 01]}\}, \text{SortBy} = ([\text{Period Level 01}]) > ([\text{OG ACT vs LY}])
  \]
Tricks, trick 3: Prompts on in-memory datasets

• Having data in a dataset via MDX did not solve our Offline requirement. For this, data needs to be stored in a MSTR Intelligent Cube, with all selector functions at the document level being set to ‘Slice’ iso ‘Filter’.

• Our cubes are refreshed monthly, which requires an incremental refresh report on the cube with a prompt to be answered for the new period. Cubes cannot be published if the query underneath has a prompt...

You will now see a demonstration of how to overcome this issue
Schematic view on trick 3

• [1] Create the (pompted) dataset
• [2] Turn into a Cube
• [3] Create the IR report
• [4] Save the dataset as static
• [5] Turn into publishable state
• [6] Copy the IR report
• [7] Point IR report to published Cube
Did we achieve our goals?

- Offline access : Yes!
- Heineken Branding : Yes!
- Solve complex reporting/front-end requirements : Yes!
- All Heineken-data available in one App? : Yes!

- Speed of implementation : No. Because of our audience, we are taking more time for testing and the requirements stay challenging. MDX will get you there, but having a ‘traditional’ Schema with a ‘standard’ backed stays our preferred end-state.
Any questions?
Thank you !!!

• Heineken Anthem

• Green Drivers
  • http://www.theheinekencompany.com/media/video-gallery/media-detail?id=93030ABC46254C71B3727EE8C12B0ADB