

Storytelling & Interactive reporting with Power BI bookmarks & drillthrough



@MarcLelijveld #PowerBIer





:kalsarikannit:

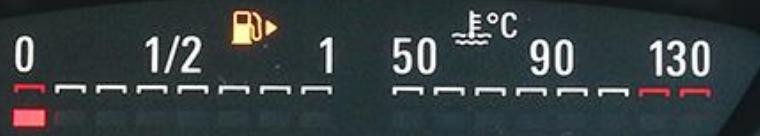
KALSARIKÄNNIT

The feeling when you are going to get drunk home alone in your underwear – with no intention of going out.

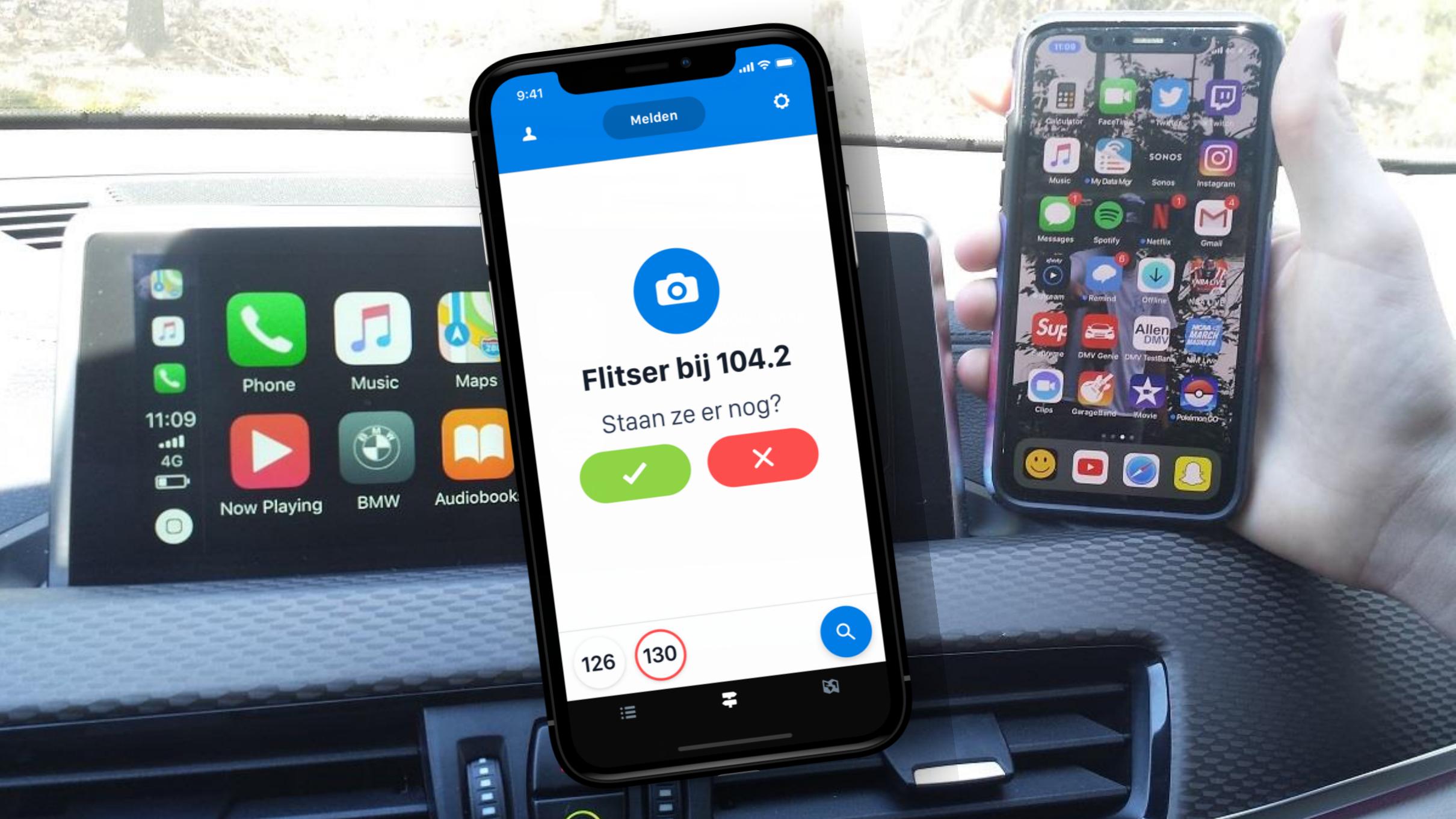
A drink. At home. In your underwear. And there is a word for it. Kalsarikännit.













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🐦 @MarcLelijveld

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🌐 Data-Marc.com





Blogging about everything related to Data and AI based on Microsoft technology

[EDIT](#)

Dynamic object titles in Power BI!

Do you want to change titles of your Power BI objects dynamically? It's possible now! Read all about it in my blog post, posted from the beautiful city of Stockholm!

[EDIT](#)

Pimp the dataflows connector in Power BI

Re-assign your dataflows connections without rebuilding your dataflow? Pimp the dataflow connector in Power BI to make it easier to switch! Read all about it in my blog!

[EDIT](#)

Power Platform Summit & Power BI gebruikersdag

Last week I attended at two events, the Power Platform Summit and the Power BI gebruikersdag (Power BI Saturday).

[READ MORE](#)

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Microsoft

Nordcloud

SQL
GOVERNOR®

SentryOne®

profit
SOFTWARE

enfo

Sovelto

invenco

PASS



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- Why storytelling?
- Practical use & tips
- Storytelling features
- Demo!



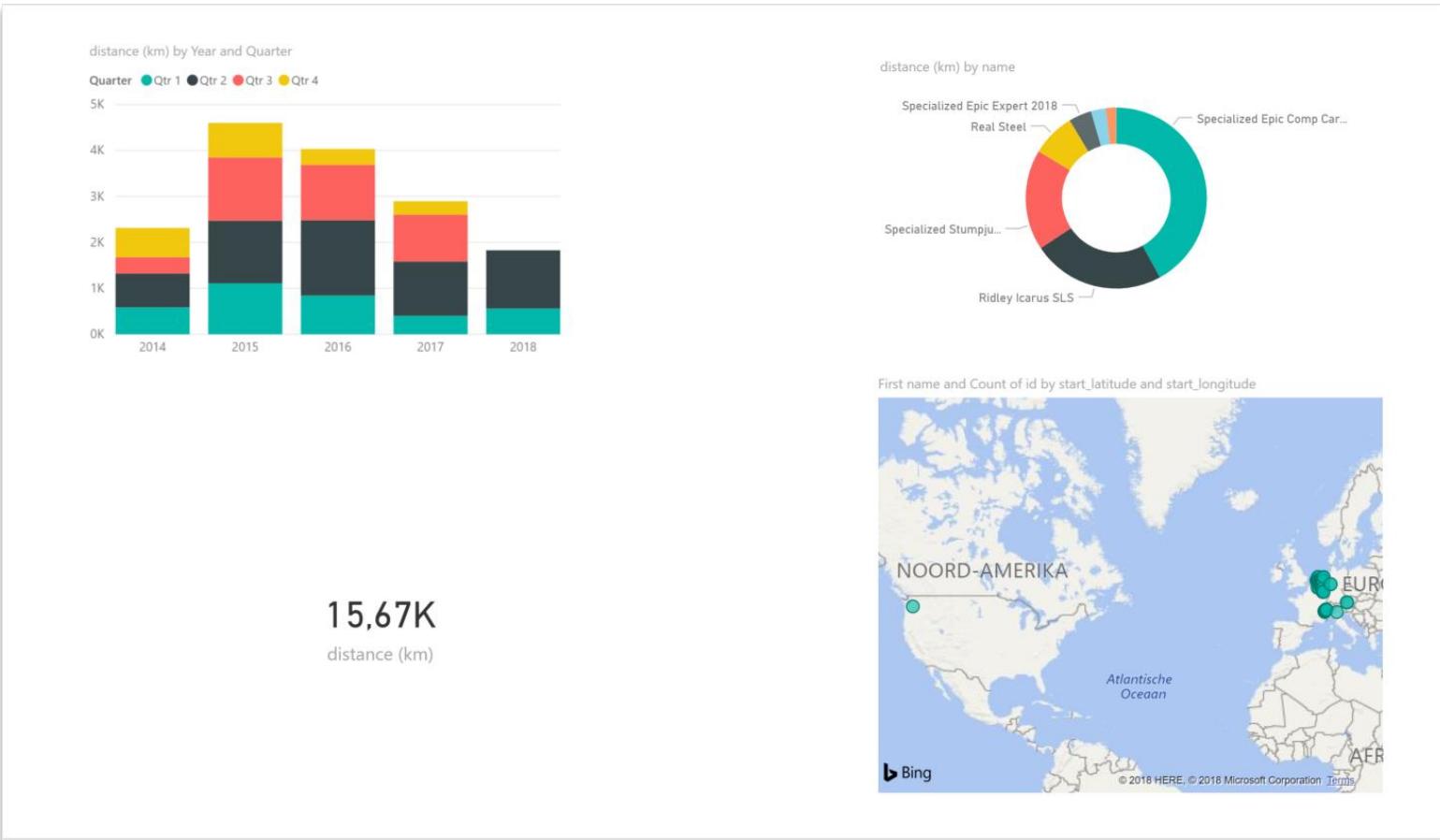


Why storytelling



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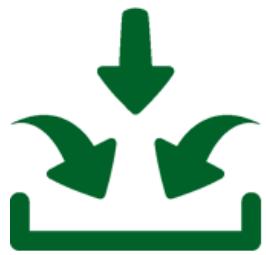
Classic reports



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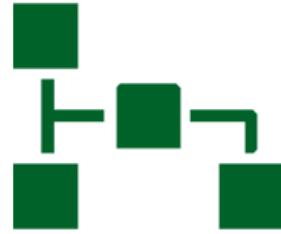
What we used to do



Collect



Transform



Model



Analyze



Define



Storytelling, How and why?

```
("input")?"val":"html";e==>"Text",r.resetText)]|n.data("resetText",n[i]()),n[i](r[e])||this.opt(e=="loadingText")?n.addClass(t).attr(t,t).removeClass(t).removeAttr(t),0},t.prototype.toClosest('[data-toggle="buttons-radio"]');e&&e.find(".active").removeClass("active"),this.$elements[e].fn.button;e.fn.button=function(n){return this.each(function(){var r=e(this),i=r.data("button",i=new t(this,s),n=="toggle"?i.toggle():i.setState(n))),e.fn.button.defaultConstructor=t,e.fn.button.noConflict=function(){return e.fn.button=n},this.$elements[e].fn.button.Constructor=t,e.fn.button.noConflict=function(){return e.fn.button=n,this},this.$elements[e].options={use strict":var t=function(t,n){this.$element=t||t,this.$indicators=this.$elements[n],this.options.pause=="hover"&&!this.$element.on("mouseenter",e.proxy(this.pause,th)),this.$element.on("mouseleave",e.proxy(this.pause,th))),t.prototype=Object.create(t.prototype,{constructor:t,paused:!0,clearInterval:function(){return this.interval&this.paused?this.interval.setInterval(e.proxy(this.next,th),this.options.interval),this.paused:!1},next:function(){return this.$element.find(".item.active").index(),this.$items=this.$active.parent().children().index(),t.prototype.getActiveIndex=function(){var n=this.$items.length-1,t=0;this.$elements.one("slide",function(){f.to(t)}):n>t?this.pause().cycle():this.slide(t+n?"next":"prev",t);(return t)(this.paused)?0:this.$elements.find("next",".prev").length&e.support.transitions?e.support.transition.end(this.cycle(0)):clearInterval(this.interval),this.interval=null,th,return;return this.slide("next")),prev:function(){if(this.sliding)return;return this.slide("prev",this.$elements.find(".item.active"),i.in|r[t]),s>this.$items.length,o=t=="next"?left:right",this.sliding||0,s&&this.pause(),i.length>0?this.$elements.find(".item").length||e.Event("slide",{isClass:"active"}):return;this.$indicators.length&(this.$indicators.find(".active").remove("active"),var t=el,a,$indicators.children(),a.getActiveIndex()):t&&t.addClass("active"),$elements.hasClass("slide"))(this.$elements.trigger(f),!f.isDefaultPrevented())return;i.addClass(o),this.$elements.one(e.support.transition.end,function(){i.removeClass([t,o].join(" ")).removeClass("active"),o.join(" ")).a.sliding||1,setTimeout(function(){a.$elements.trigger("f");!f.isDefaultPrevented()||return;r.removeClass("active"),i.addClass("active"),this.slide(s&&this.cycle(),th)}),var n=e.fn.carousel;e.fn.carousel=function(n){return this.each("carousel",s=e.extend({},e.fn.carousel.defaults,r.typeof n=="object"?n:{},o=r.typeof n=="string"?t(this,s),r.typeof n=="number"?i.to(n):o:i[o].s.interval&s.pause().cycle()))},e.fn.carousel.pause=="hover",e.fn.carousel.Constructor=t,e.fn.carousel.noConflict=function(){return e.fn.carousel.defaultApi=[{"data-slide":1,"data-slide-to":1},function(t){var n=e(this),r,i=n.attr("data-replace"),o=i?r.replace(/\?(\?|\&)\?/g,"?"):i,d=n.data("slide-to"),j=o?o:n.attr("data-pause"),e(i).cycle(t,p.preventDefault());(window.jQuery,<function(e){use strict";var t=e.options,e.extend(t,e.fn.collapse.defaults,n),this.$options.parent&(this.$parent=e(this).opt.toggle());t.prototype=constructor,t.dimension=function(){var e=this.$element.hasClass("width");show:function(){var t,n,r,i;if(this.transitioning||this.$element.hasClass("in"))return;t=t||this.$parent.find(".accordion-group>.in");if(r=t.length)i=t.length&transitioning?r.collapse("hide",1):r.data("collapse",null);this.$element[t](0),this.$element["shown"],e.support.transition&&this.$element[t](this.$element[t](0)),hide:function(){var t,n;if(this.$element.hasClass("in"))return;t=this.dimension(),this.reset(this.$element[t]()),this.$element["transitionEnd"],this.$element[t](0),reset:function(e){var t=this.dimension();return this.$element.removeClass("collapse"),this.$element.transitionEnd(e)},offsetWidth:this.$element[e!=null?"addClass":"removeClass"]("collapse",this.$element[t](0)),transition:{n.type=="show"?s.reset(),i.transitioning=0,i.$element.trigger(r);this.$element.trigger(n)
```



How = Usage of data

Why = Business understanding



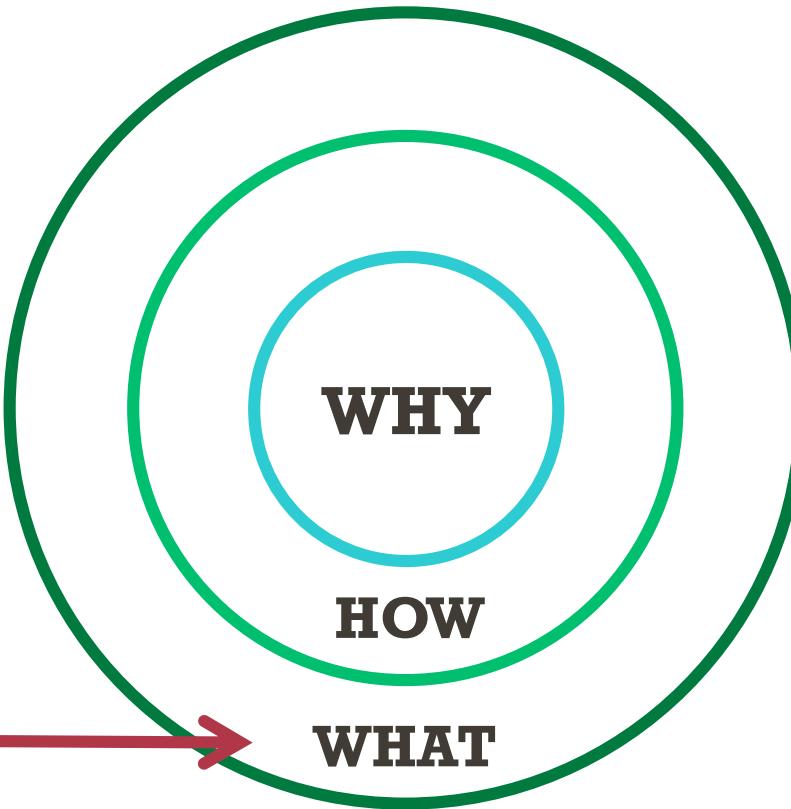
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What as a starting-point

We are good at:

We should do:



Telling what we do

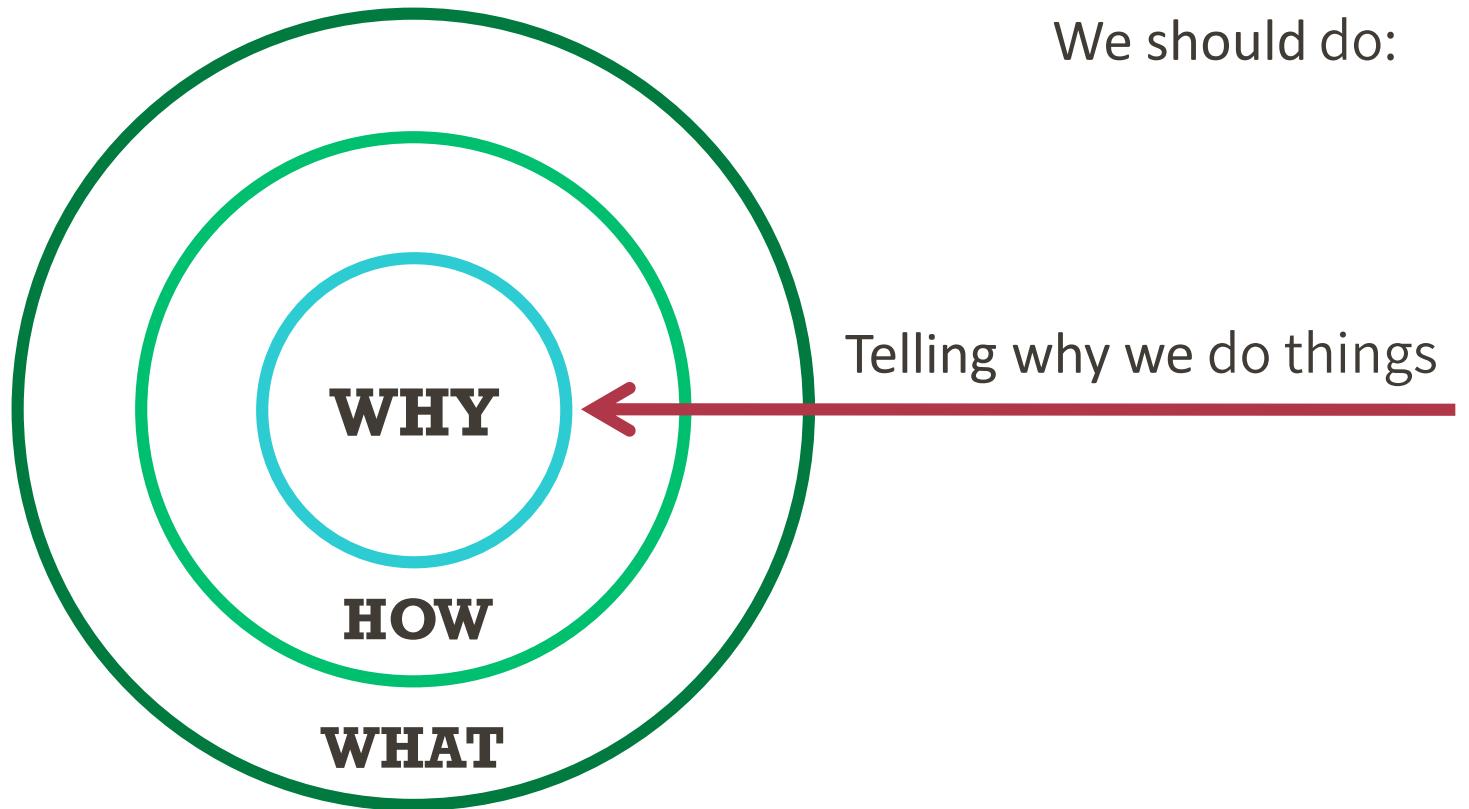


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Why as a starting-point

We are good at:



The definition of storytelling

Data storytelling is the process of translating data analyses into layman's terms in order to influence a **business decision** or **action**.

Once upon a time... <sob>



Goals of storytelling

- Transfer of information which is interpreted correctly
- The origin of the question
- Possibility to answer the next question
- Motivation for data-driven decisions
- Connected to business processes





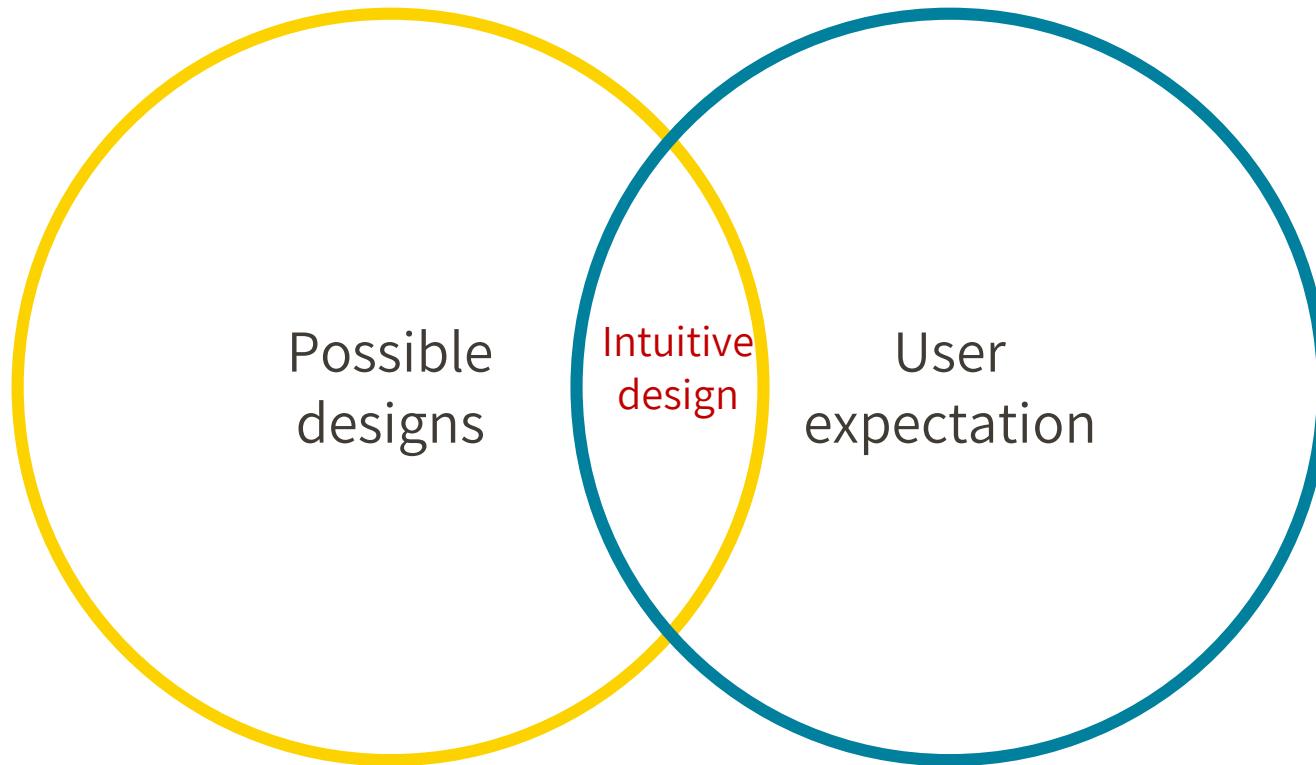
Practical use and some additional features



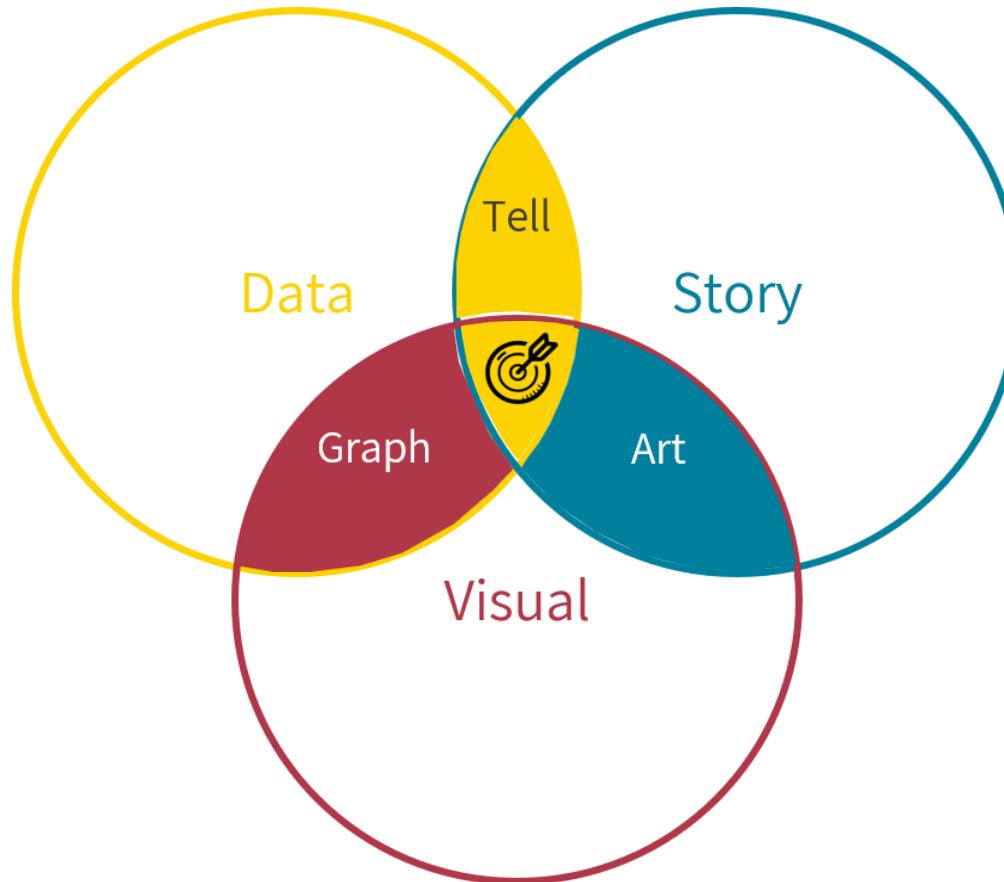
Add context



Make it intuitive



Find the right balance



Define your type of storytelling



Describe



Declare



Explore



Define your route (click-path)



Think about your start & end-point



Remove all bullshit!



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Visualization

Export von Bananen in Tonnen von 1994-2005

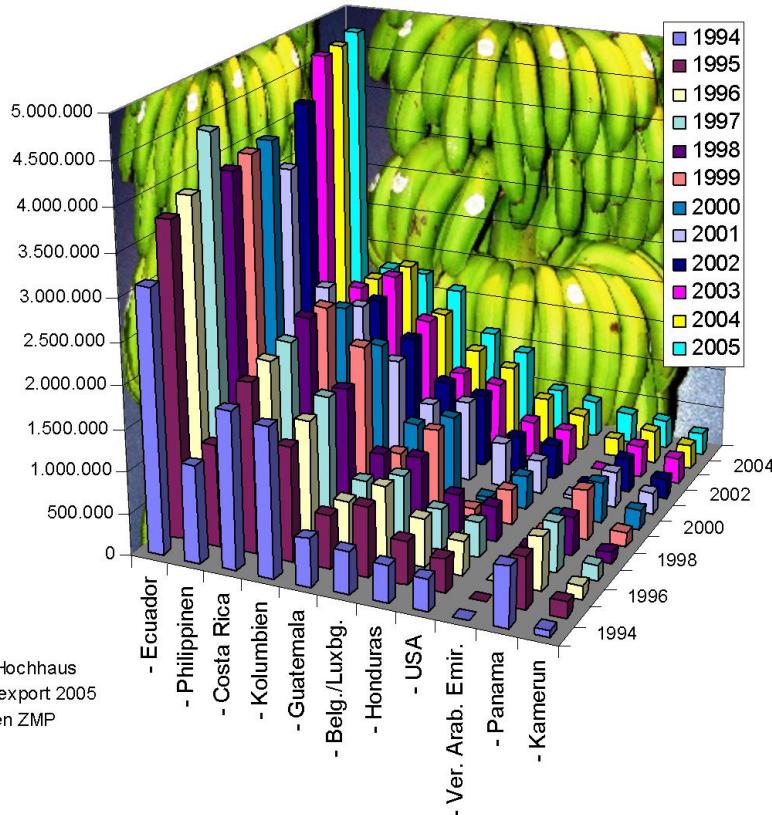
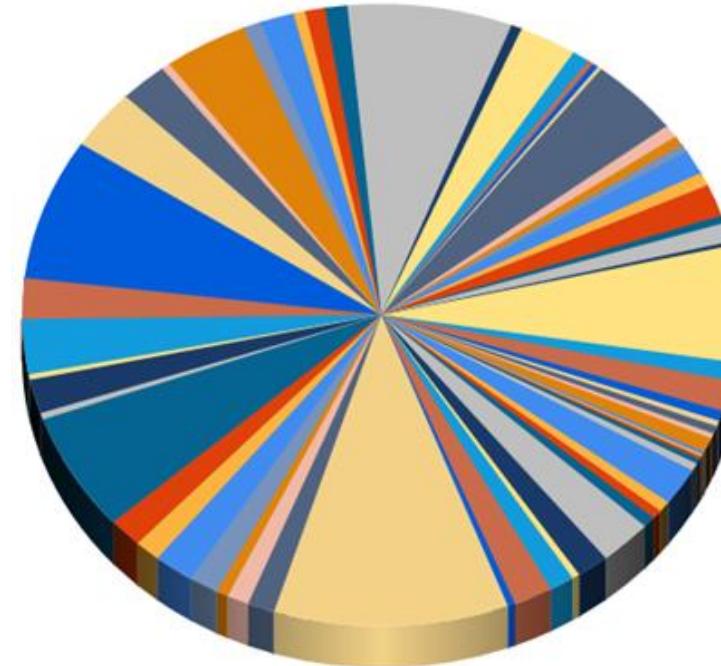
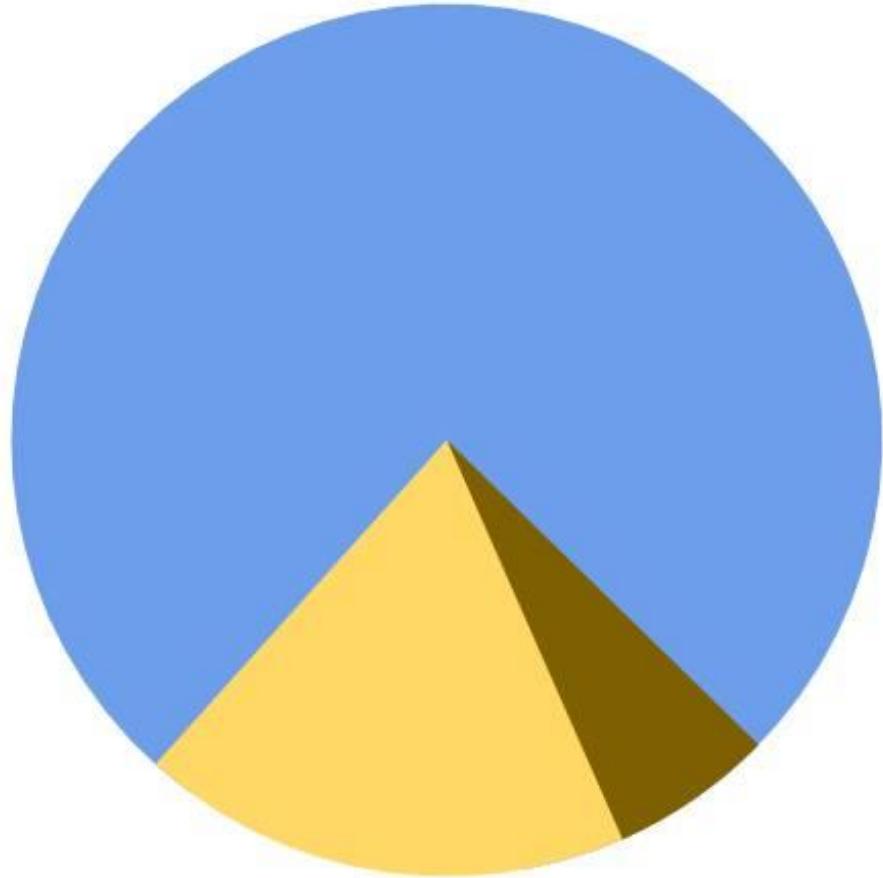


Chart Title



Visualization



Sky

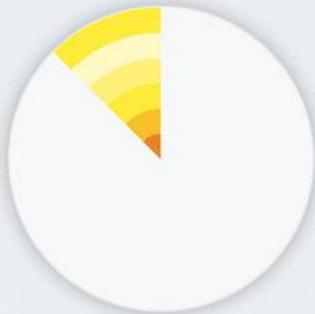


Sunny side of pyramid



Shady side of pyramid

Color usage



MONOCHROMATIC



COMPLEMENTARY



ANALOGOUS



TRIADIC





MARIOKART DELUXE

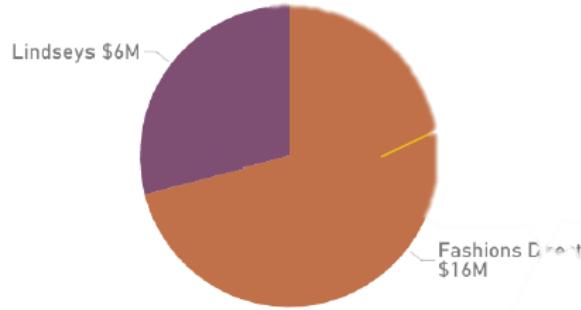
TM



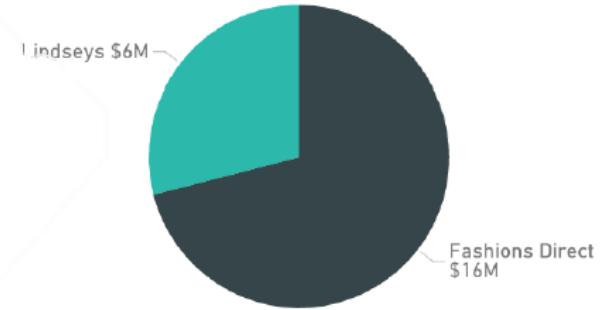
1	King Boo	45
2	Lakitu	32
3	Villager	30
4	Shy Guy	27
5	Iggy	23
6	Ludwig	21
7	Roy	16
8	Peach	15
9	Cat Peach	14
10	Villager	10
11	Luigi	7
12	Mario	6

Consistency

This Year Sales by Chain



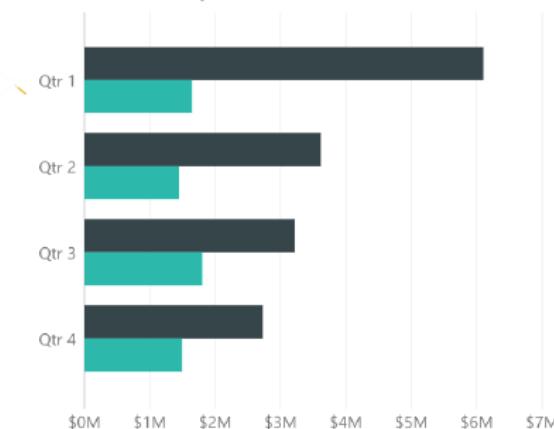
This Year Sales by Chain



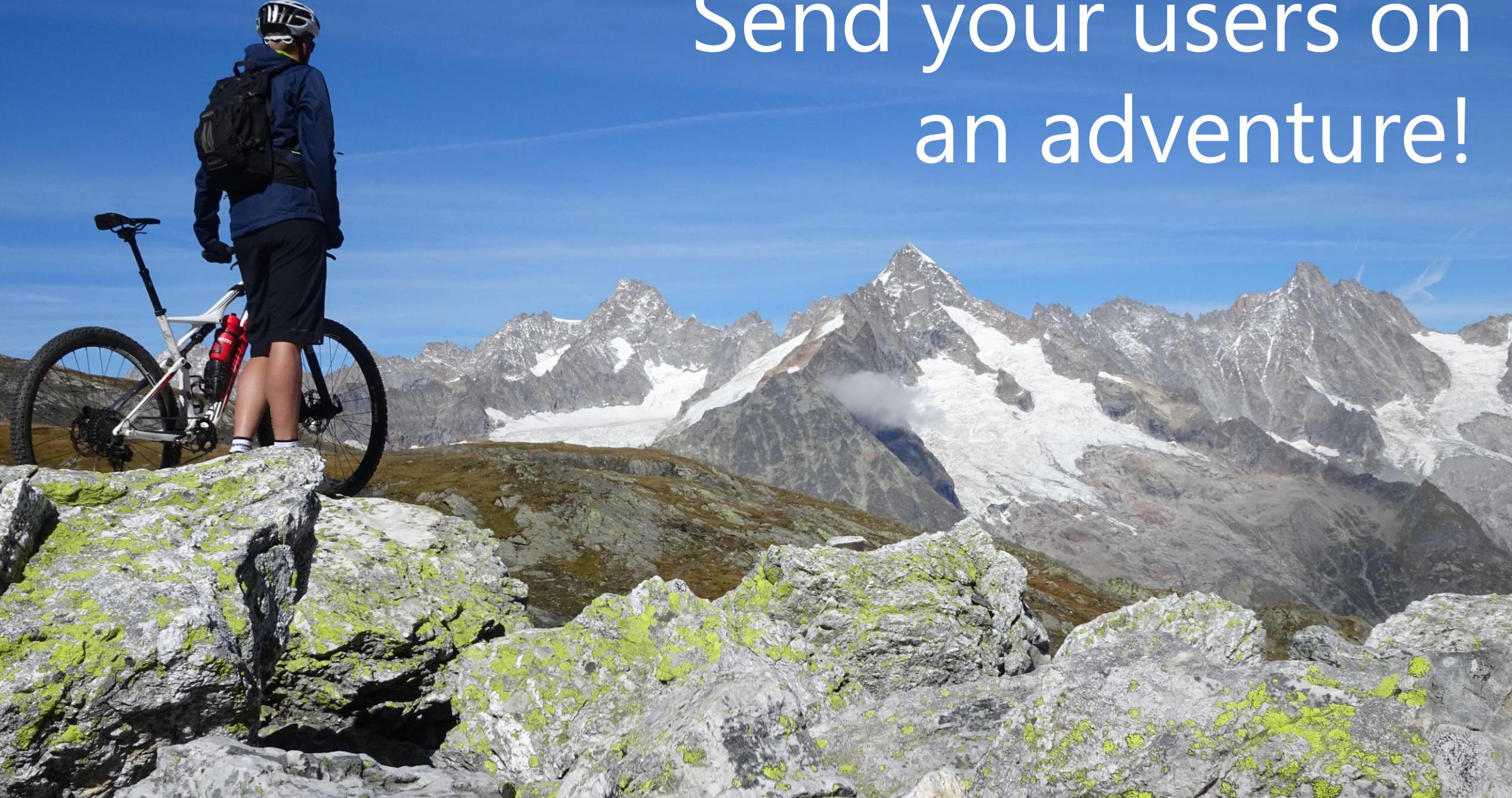
This Year Sales by Quarter and Chain



This Year Sales by Quarter and Chain



Send your users on an adventure!





Storytelling features



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Provide easy navigation



MEDIA DISCUSSION

CALLOUT PAGES

Opiod Crisis Investigation

Media Discussion

Reimbursements by State

Take Action

Published Date

Last 1 Years

4/18/2017 - 4/17/2018

Source

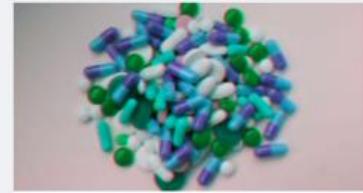


Reimbursements by Product

● Medicaid Amount Reimbursed ● Non Medicaid Amount Reimbursed



Labeler Name	Medicaid Amount Reimbursed
Purdue Pharma	\$65,537,207
Rhodes Pharmaceuticals	\$13,386,981
Alvogen	\$11,685,277
Kvk-Tech	\$10,564,303
Aurobindo Pharma	\$4,453,260
Amneal Pharmaceuticals	\$3,724,979
Ranbaxy Pharmaceuticals	\$3,554,774
Zydus Pharmaceuticals	\$3,484,614
Epic Pharma	\$1,801,086
Sun Pharmaceutical Industries	\$1,630,451
Mayne Pharma	\$1,007,351
Par Pharmaceutical	\$804,096
Lohi Valley Technologies	\$420,072



An Osteoarthritis Drug May Be the Answer to America's Opioid Crisis futurism.com • Mar. 2, 2018
A drug developed to treat osteoarthritis pain has shown promise as a method of preventing opioid tolerance and physical dependence. With the opioid epidemic still



A telling anecdote about Trump and the opioid abuse crisis www.vox.com • Mar. 2, 2018
originally from prescription opioids but increasingly now from heroin and fentanyl ? have emerged as an increasingly grave social issue, steadily worsening over time.

WATCH LIVE: White House to highlight administration anti-opioid efforts fox61.com • Mar. 2, 2018
The White House is hosting a summit to highlight Trump administration efforts to combat the opioid crisis. First lady Melania Trump is scheduled to ...



White House To Give Status Update On Opioid Emergency wypr.org • Mar. 2, 2018
ET Since President Trump declared the opioid epidemic a national public health

here&
Now

Wyoming Prepares To Grapple With Opioid Crisis www.wbur.org • Mar. 2, 2018
discuss the country's opioid epidemic. Rural coal mining states like West Virginia and



White House to host opioid summit and highlight Trump administration's efforts www.pbs.org • Mar. 2, 2018
The White House is hosting a summit to highlight Trump administration efforts to



Be dynamic

KPI BREAKDOWN



REGION

All

COUNTRY

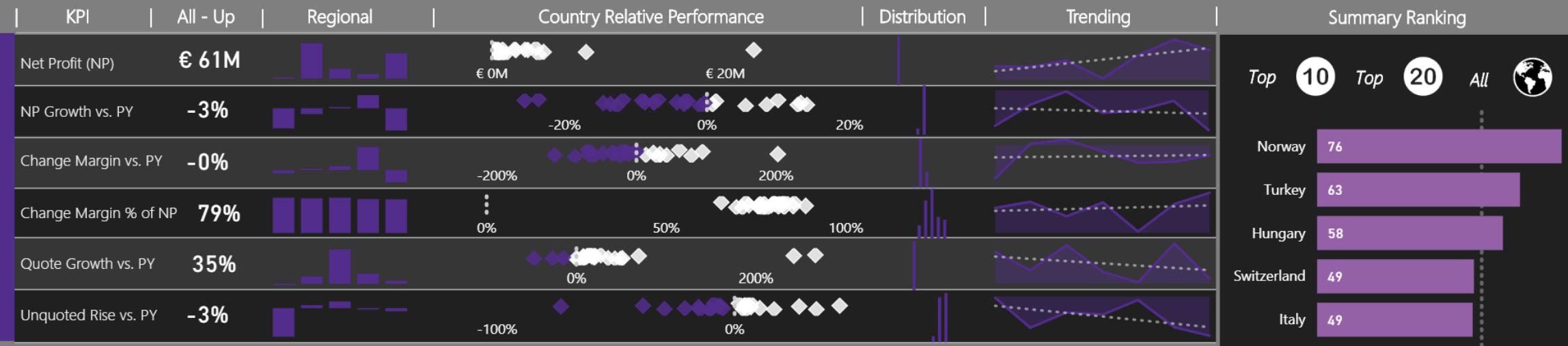
All



Select for FAQ

DecisiveData
insights for decisions

FINANCIAL



MARKET



SUPPLY



Date

6/1/2017 | 12/1/2017

Summary Ranking

0 | 91

NP Growth vs PY

-30% | 16%

Quote Growth

-55% | 281%

Market Change Shape

-7% | 16%

Filters

Top 10 Top 20 All

Norway 76

Turkey 63

Hungary 58

Switzerland 49

Italy 49

Netherlands 48

Slovakia 46

Ireland 43

Poland 41

Belarus 40

AVG 51



A photograph showing a row of approximately ten penguins standing in a line, facing towards the right. They are dark-colored with white bellies. The background is a soft-focus green field.

Have a guided experience

REIMBURSEMENTS BY STATE

CALLOUT PAGES

Opioid Crisis Investigation

Media Discussion

Reimbursements by State

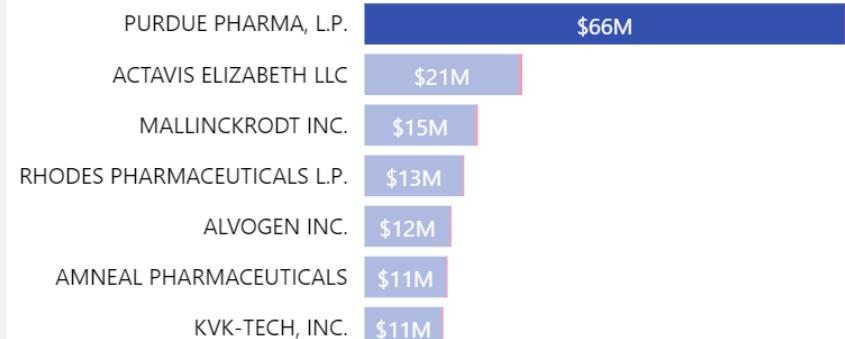
Take Action

Opioid Type

All

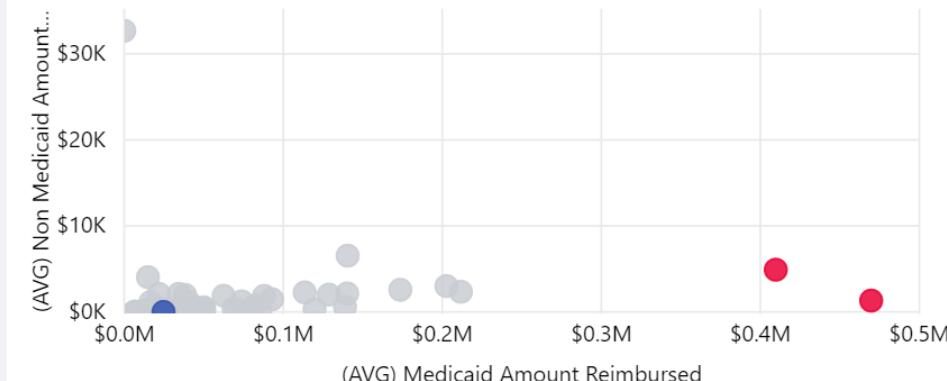
Medicaid Amount Reimbursed and Non Medicaid Amount Reimbursed by Labeler Name

● Medicaid Amount Reimbursed ● Non Medicaid Amount Reimbursed



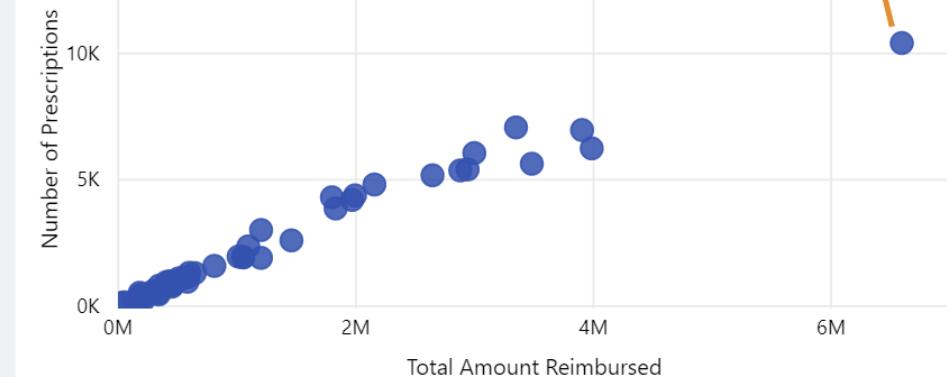
(AVG) Medicaid Amount Reimbursed and (AVG) Non Medicaid Amount Reimbursed by...

● Missouri & North Carolina ● Other ● South Carolina



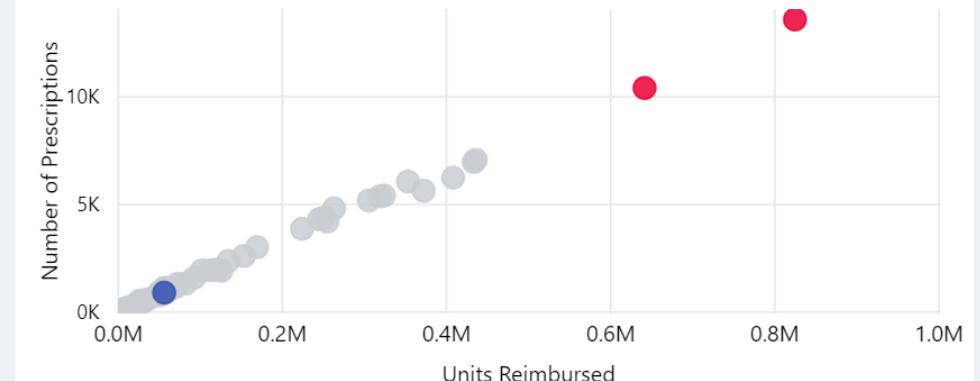
Missouri and North Carolina are at the centre of a lawsuit involving mis-marketing of OxyContin. Purdue settled a lawsuit in 2007 with South Carolina.

Total Amount Reimbursed and Number of Prescriptions by State



Units Reimbursed and Number of Prescriptions by State and State (groups)

● Missouri & North Carolina ● Other ● South Carolina



Have an interactive
experience

Dutch Painting

See Also
POLYCHROME • 1640s



Landscape with a Windmill (1646)

Jacob van Ruisdael

ON VIEW IN GALLERY 213



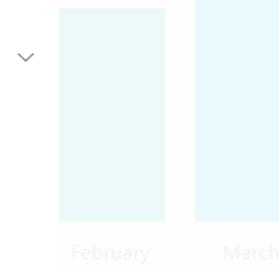
SAVE ARTWORK

Bar Chart

Item

Slicer 1

- CategoryName
- Beverages
 - Condiments
 - Confections
 - Dairy Products
 - Grains/Cereals
 - Meat/Poultry
 - Produce
 - Seafood



Slicer 2

- Country
- Argentina
 - Austria
 - Belgium
 - Brazil
 - Canada
 - Denmark
 - Finland
 - France
 - Germany
 - Ireland
 - Italy
 - Mexico
 - Norway
 - Poland
 - Portugal
 - Spain



Slicer 3

- City
- Aachen
 - Albuquerque
 - Anchorage
 - Århus
 - Barcelona
 - Barquisimeto
 - Bergamo
 - Berlin
 - Bern
 - Boise
 - Bräcke
 - Brandenburg
 - Bruxelles
 - Buenos Aires
 - Butte
 - Campinas



Item

Item

Item

Item

KPI 1

15K

KPI 2

1K

KPI 3

Chart



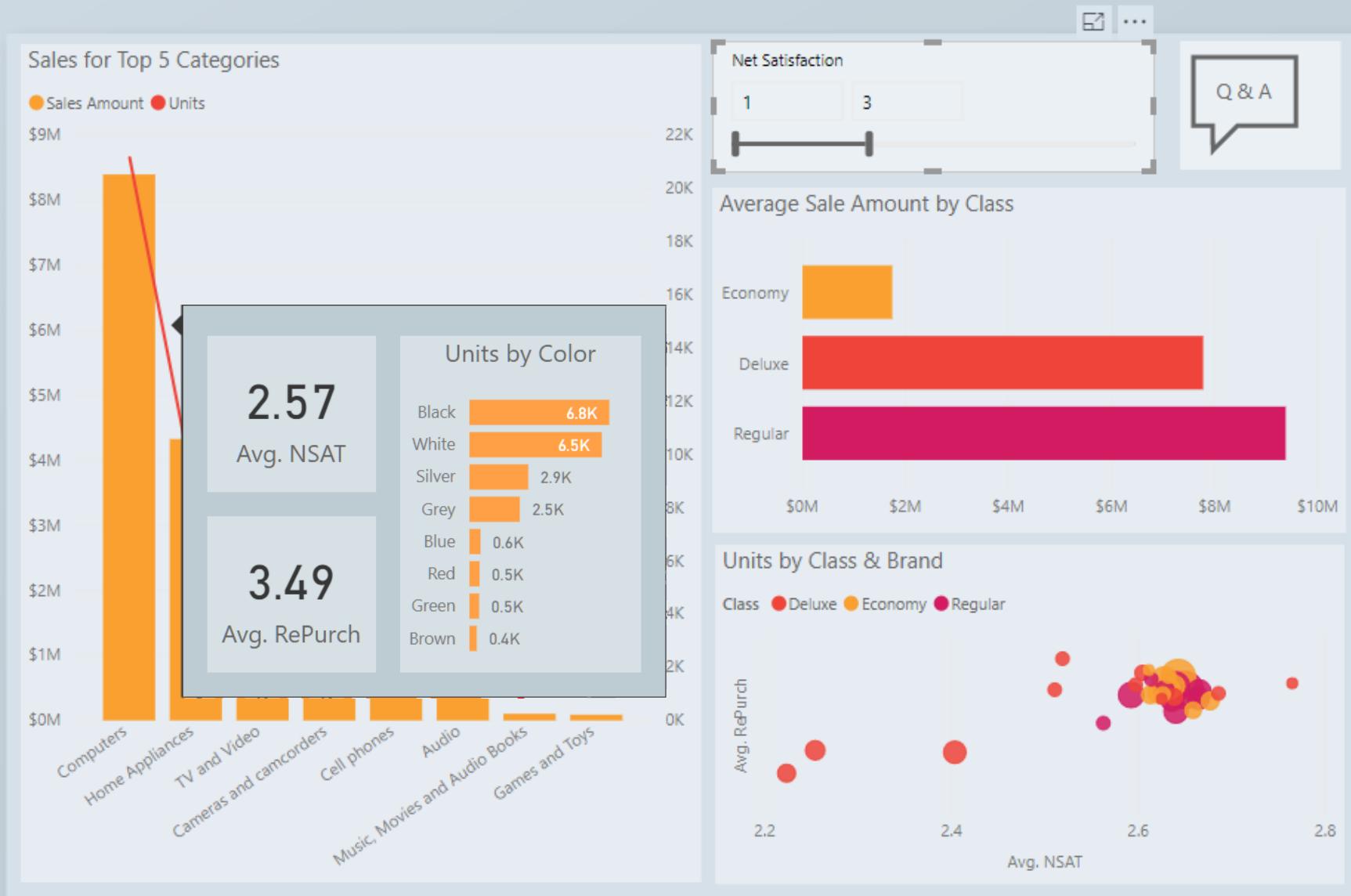


Ensure consistent context



A historical map of the world, centered on Europe and Africa, showing coastlines and major rivers. A compass rose is located in the lower-left quadrant. A telescope lies diagonally across the map, pointing from the bottom-left towards the top-right.

Progressive disclosure

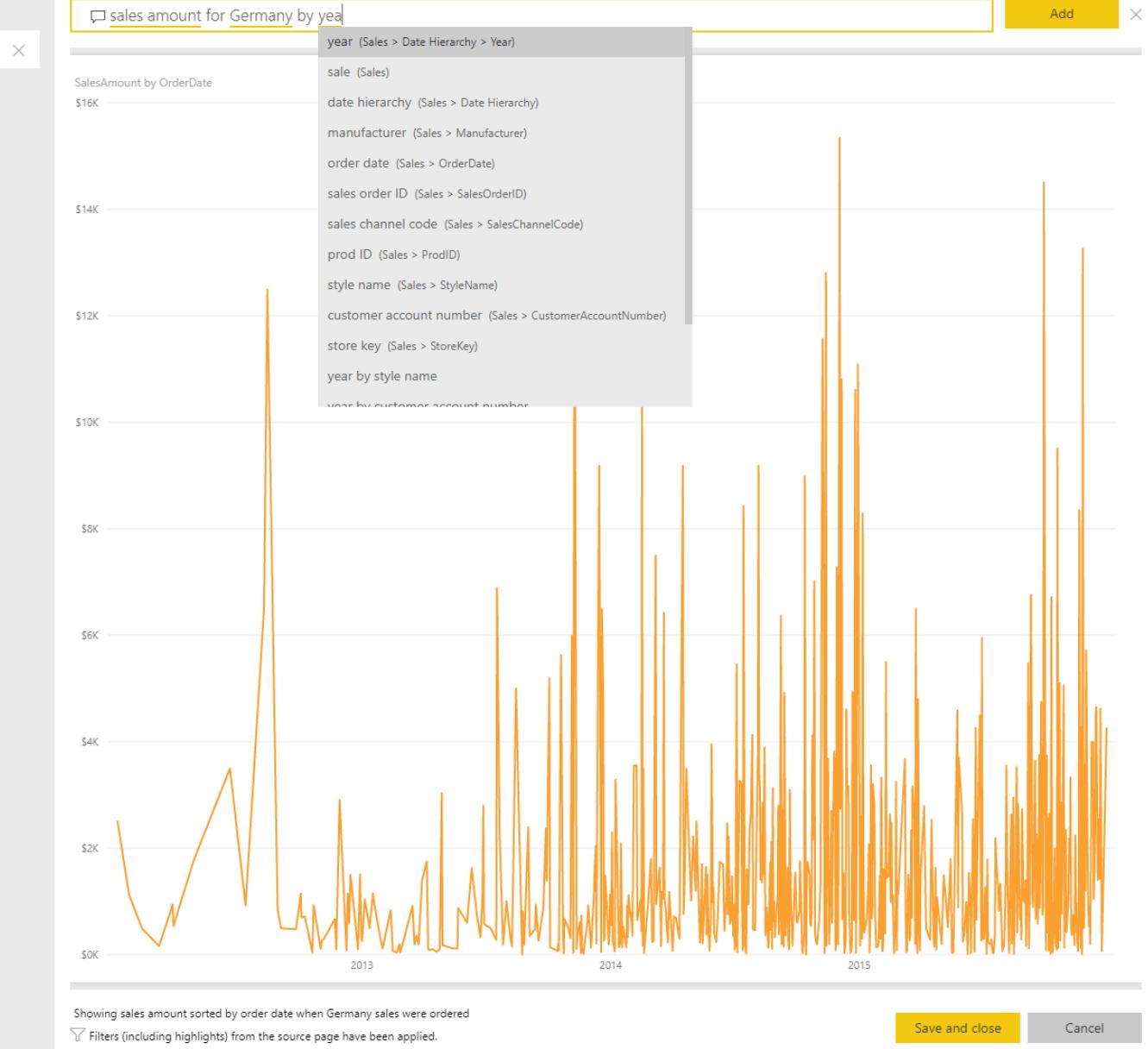




Let them ask questions

SUGGESTED QUESTIONS

sales amount for Germany





Background, theme & wallpaper



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Demo strava data – part 1

- Choose a lay-out for your report for be consistent in your presentation
- Create background to limit the amount of objects
- Create theme file and apply your corporate identity
- Add a wallpaper for further customizing the lay-out



Conditional formatting



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Demo strava data – part 2

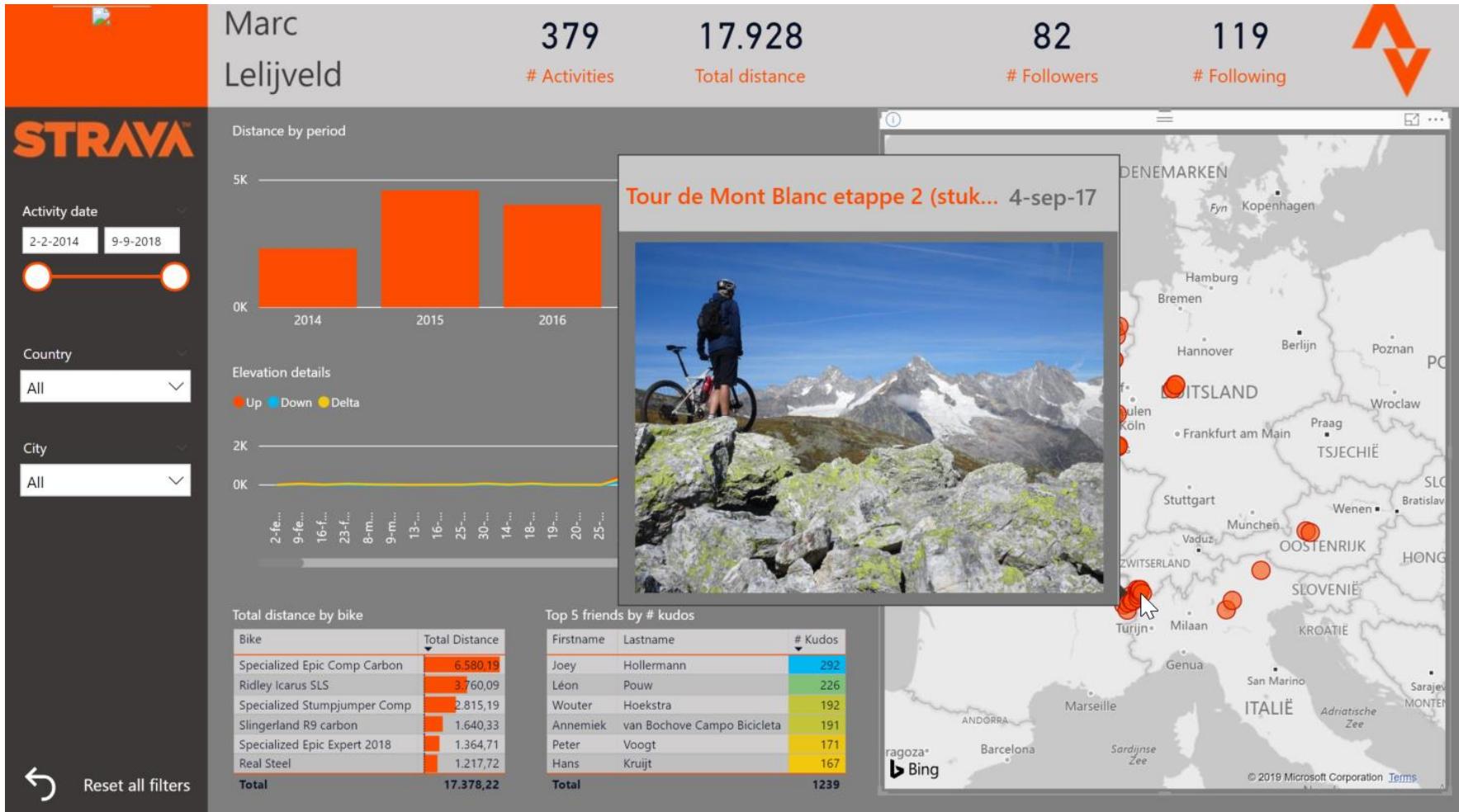
- Tables and matrixes look boring and like classic reports!
- Databars, text color and cell color!
- Based on cell value or other measure.



I'm going to tell you a story



Demo strava data – part 3 (final)



The image shows a Strava profile for Marc Lelijveld. At the top, it displays his name, 379 activities, 17.928 total distance, 82 followers, and 119 following. Below this is a bar chart showing distance by period: 2014 (~4K), 2015 (~4.5K), and 2016 (~4.5K). A callout box highlights a specific activity: "Tour de Mont Blanc etappe 2 (stuk... 4-sep-17)" with a photo of a cyclist on a rocky mountain peak. To the right is a map of Europe with activity locations marked. The left sidebar includes filters for Activity date (2-2-2014 to 9-9-2018), Country (All), and City (All). The bottom section shows "Total distance by bike" (17.378,22) and "Top 5 friends by # kudos".

Marc Lelijveld

379 # Activities

17.928 Total distance

82 # Followers

119 # Following

Distance by period

Activity date: 2-2-2014 to 9-9-2018

Country: All

City: All

Elevation details: Up, Down, Delta

Total distance by bike: 17.378,22

Top 5 friends by # kudos:

Firstname	Lastname	# Kudos
Joey	Hollermann	292
León	Pouw	226
Wouter	Hoekstra	192
Annetiek	van Bochove Campo Bicicleta	191
Peter	Voogt	171
Hans	Kruyt	167

Tour de Mont Blanc etappe 2 (stuk... 4-sep-17)

Denemarken, Fyn, Copenhagen, Hamburg, Bremen, Hannover, Berlin, Poznan, Wroclaw, Tsjechie, Prague, Bratislava, Oostenrijk, Vienna, Munchen, Stuttgart, Frankfurt am Main, Cologne, Zurich, Vaduz, Maastricht, Turijn, Milaan, Genua, San Marino, Marseille, Barcelona, Sardijnse Zee, Andorra, Sarajevo, Montenegro, Adriatische Zee.

ragoza* Bing © 2019 Microsoft Corporation [Terms](#)



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Recap

- Storytelling is not a science; it is an **art**!
- **Understand** your end-user. Facilitate them with data.
- Send your users on an adventure and make them part of **your** story!
- Add your **identity** (corporate or your own) .
- Power BI is full of great features, **make boring data shine!**



Download for free!

[Https://bit.ly/cheatsheetpbi](https://bit.ly/cheatsheetpbi)



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linkedin.com/in/MarcLelijveld

Data-Marc.com

The graphic shows two versions of the 'Power BI Cheat Sheet'. The top version is titled 'Power BI Cheat Sheet' and includes sections for 'Power Query' and 'Data Model'. It lists tips and tricks for both, such as giving every step an explanatory name and merge steps of the same type for better manageability, and using DAX calculated columns when it's not possible to create it using Power Query. The bottom version is titled 'I'VE GOT THE POWER BI' and includes sections for 'Code examples', 'Resources', and 'Resources'. It lists various tips and tricks for Power BI, such as using the new Filter Panes, creating calculated measures, and using IsInScope. Both versions have a yellow header bar with the date 'April 2019' and the URL 'https://bit.ly/cheatsheetpbi'.



Power Bler
Data-Marc.com