

Storytelling & Interactive reporting

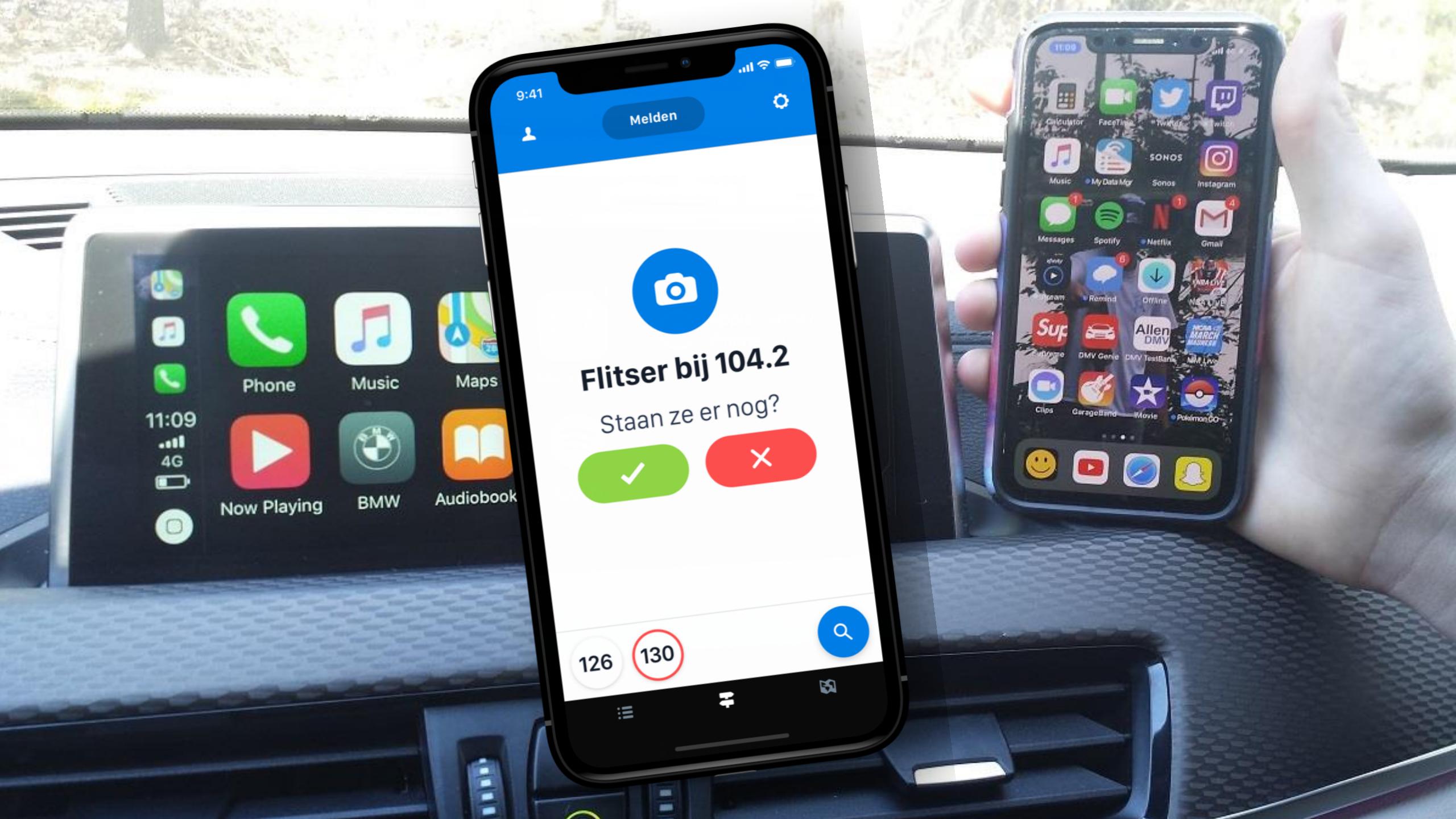
with Power BI bookmarks & drill through













Marc Lelijveld

Data & AI consultant
Macaw Netherlands

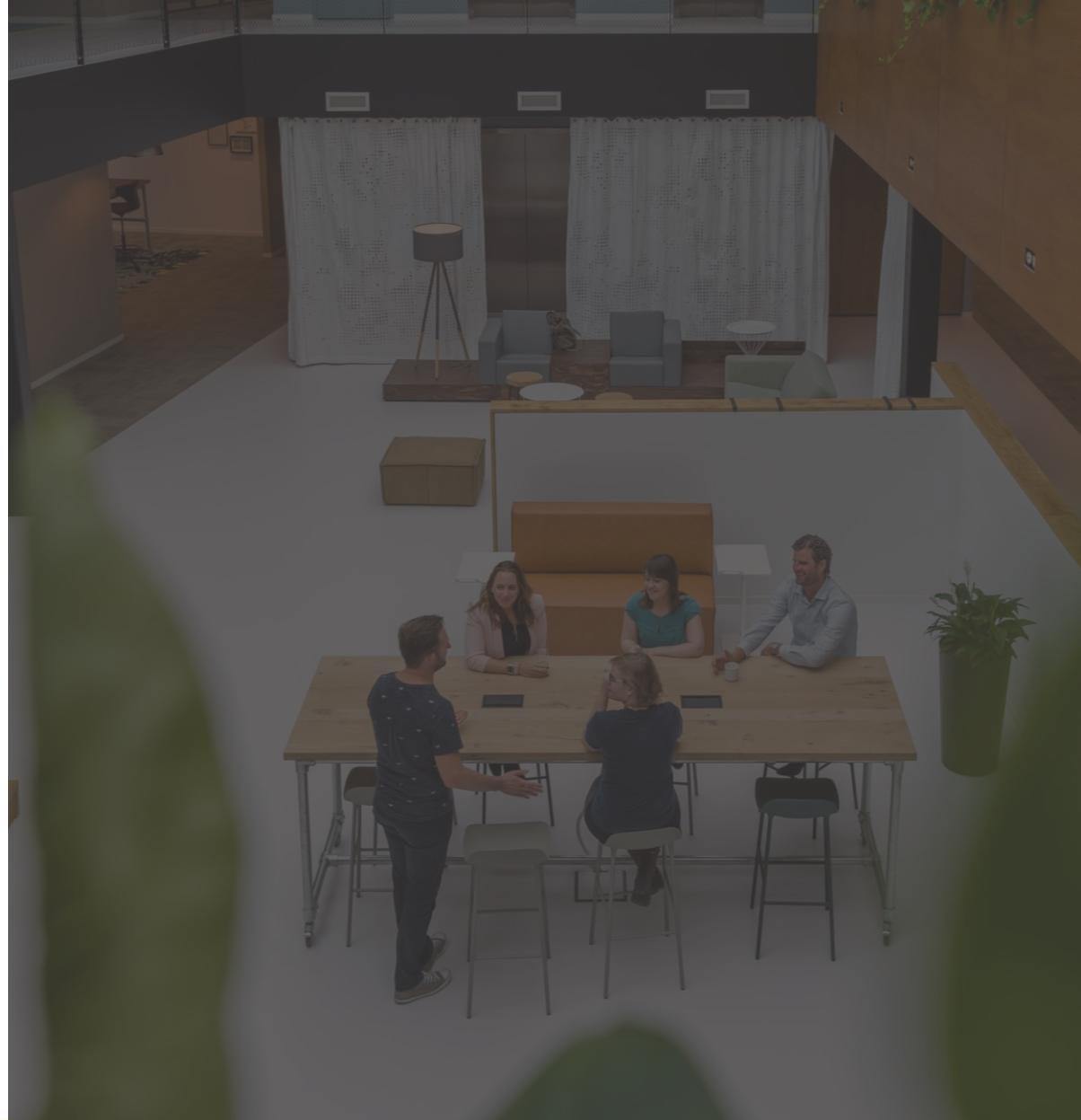


- ✉ Marc.Lelijveld@outlook.com
- 🐦 @MarcLelijveld
- linkedin.com/in/MarcLelijveld
- 🌐 Data-Marc.com



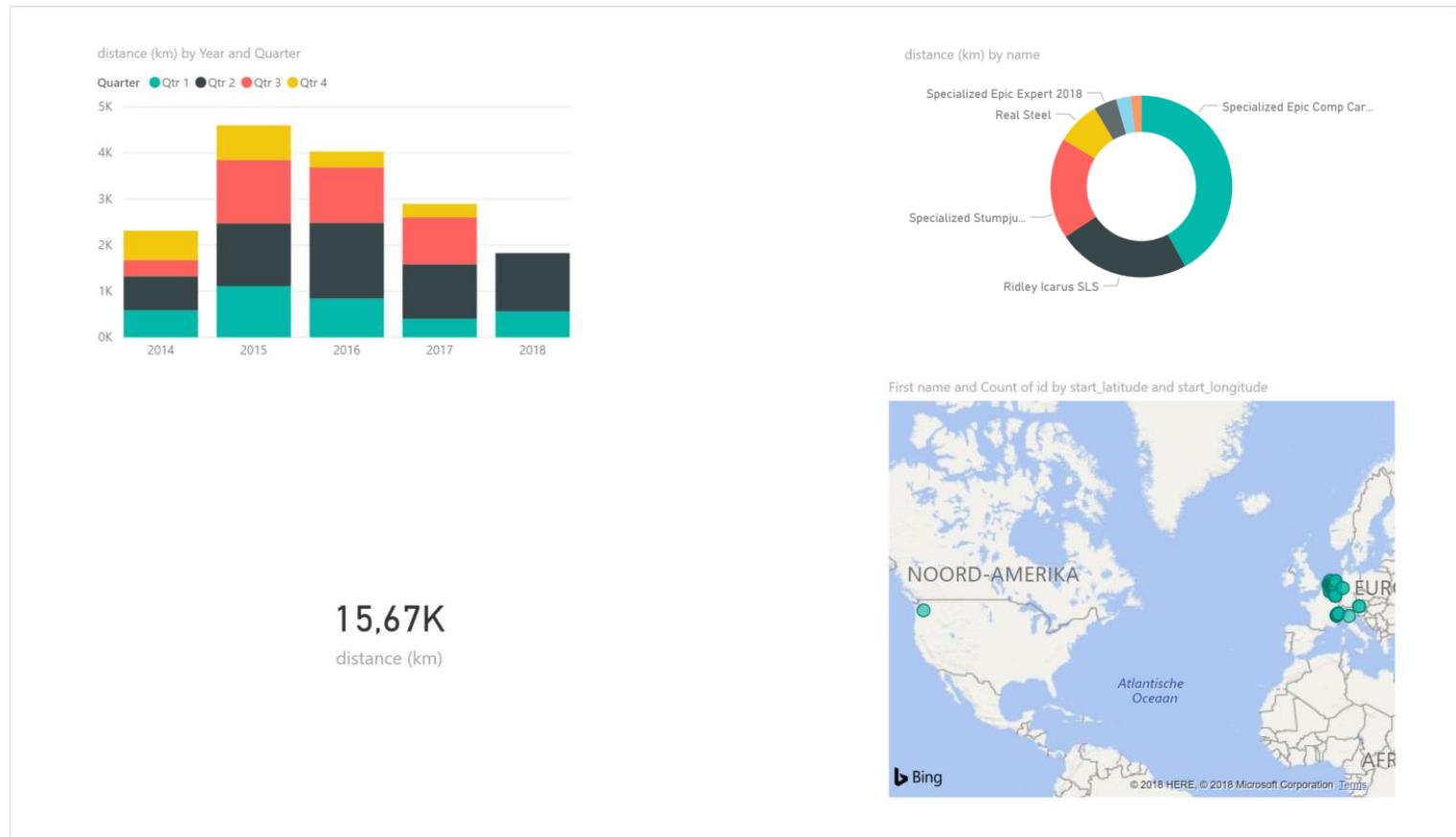
What we cover today

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

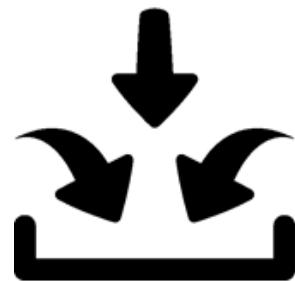


Why storytelling?

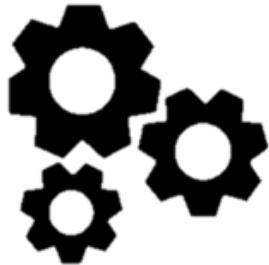
Classic reports



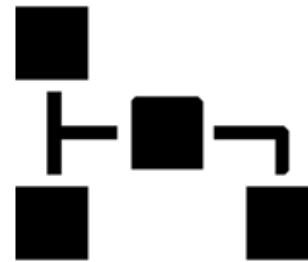
What we used to do



Collect



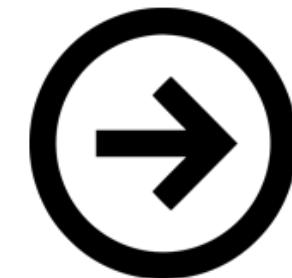
Transform



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), t.removeAttr("t"), r.removeAttr("t")], r.prototype.toggle=t.closest("[data-toggle='buttons-radio']"); e&e.find(".active").removeClass("active"), this.$elements=e.fn.button; e.fn.button=function(n){return this.each(function(){var ree(this), i=r.data("button", this); if(i.isNew(t, this), n=="toggle") i.toggle(); else i.setState(n)}), e.fn.button.defaultConstructor=t, e.fn.button.noConflict=function(){return e.fn.button.on, this}, e(document).on("data-toggle=button"), this}, function(t){var ne=t.target); n.hasClass("btn"))){(n=n.closest(".btn-group"), !function(e){"use strict"; var t=function(t, n){this.$element=e(t), this.$indicators=this.$element.options.n, this.$options.pause="# hover"&&this.$element.on("mouseenter", e.proxy(this.pause, this)); t.prototype={cycle:function(t){(return t)(this.paused=1), this.interval&clearInterval(this.interval), this.paused||(this.interval=setInterval(e.proxy(this.next, this), this.$options.interval)), return this.$active=this.$element.find(".item.active"), this.$items=this.$active.parent().children(), to:function(t){var n=this.getItemsIndex(), r=this; if(t>this.$items.length-1||t<0){this.$element.one("slide", function(){fr.to(t)}); n=n+this.pause().cycle()); this.slide(t, "next", "prev"); if(t){return t}(this.paused=0), this.$element.find(".next", ".prev").length&e.support.transition&e.support.transition.end, this.cycle(0)), clearInterval(this.interval), this.interval=null, this.$element.find(".item.active", i-n)[r(t)], s=this.interval, o=t=="next"? "left": "right", this.sliding=0, s&&this.pause(), i=i.length-1>this.$element.find(".item")[(i)], r=e.Event("slide", {isClass("active")); return this.$indicators.length&(this.$indicators.find(".active").remove("active", {var t=e.$(a.$indicators.children())a.getActiveIndex()); t&&t.addClass("active", {this.$element.hasClass("slide")); this.$element.trigger(f); if(f.isDefaultPrevented()) return; i.addClass(o), this.$element.one(e.support.transition.end, function(){i.removeClass(t, o), j.removeClass("active", o).join(" ")), a.sliding=1, setTimeout(function(){a.$element.trigger(f); if(f.isDefaultPrevented()) return; r.removeClass("active"), i.addClass("active", this.$slide), return s&&this.cycle(), this}); var ne=e.fn.carousel; e.fn.carousel=function(n){return this.each(function(){var s=e.extend({}, e.fn.carousel.defaults, rtypeof n=="object"? n: {type:"string", t:(this, s), typeof n=="number"? i.to(n): i[o()]: s.interval&i.pause().cycle()})), e.fn.carousel.pause="# hover", e.fn.carousel.Constructor=t, e.fn.carousel.noConflict=function(){return e.fn.carousel.data-api}, "[data-slide]", "[data-slide-to]", function(t){var ne=this, r, i=efn.attr("replace(/.+(?:#(\w+)+$)/, ""), s=e.extend({}, i.data(), n.data()), o=i.carousel(s), o.n.attr("o.pause().to(o).cycle(), t.preventDefault()); (window.jQuery), function(e){"use strict"; var t=e.options.e.extend({}, e.fn.collapse.defaults, n), this.$options.parent&(this.$parent=e.fn.opt.toggle()); t.prototype={constructor:t, dimension:function(){var e=this.$element.hasClass("wid show": function(){var t,n,r,i;if(this.transitioning){this.$element.hasClass("in")) return; t=t.join("-"), r=this.$parent&this.$parent.find(">.accordion-group > .in"); if(r&r.length){transitioning) return; r.collapse("hide", i); r.data("collapse", null)} this.$element[t](0), this.$element["show"], e.support.transition&&this.$element[t](this.$element[0][n]), hide:function(){var t: this.$element.hasClass("in")) return; t=this.dimension(), this.reset(this.$element[t]()), this.transition("re this.$element[t](0), reset:function(e){var t=this.dimension(); return this.$element.removeClass("offsetWidth, this.$element[e==null?" addClass("removeClass")("collapse"), this], transition:n.type=="show"? i.reset(), i.transitioning=0, i.$element.trigger(r); this.$element.trigger(n
```



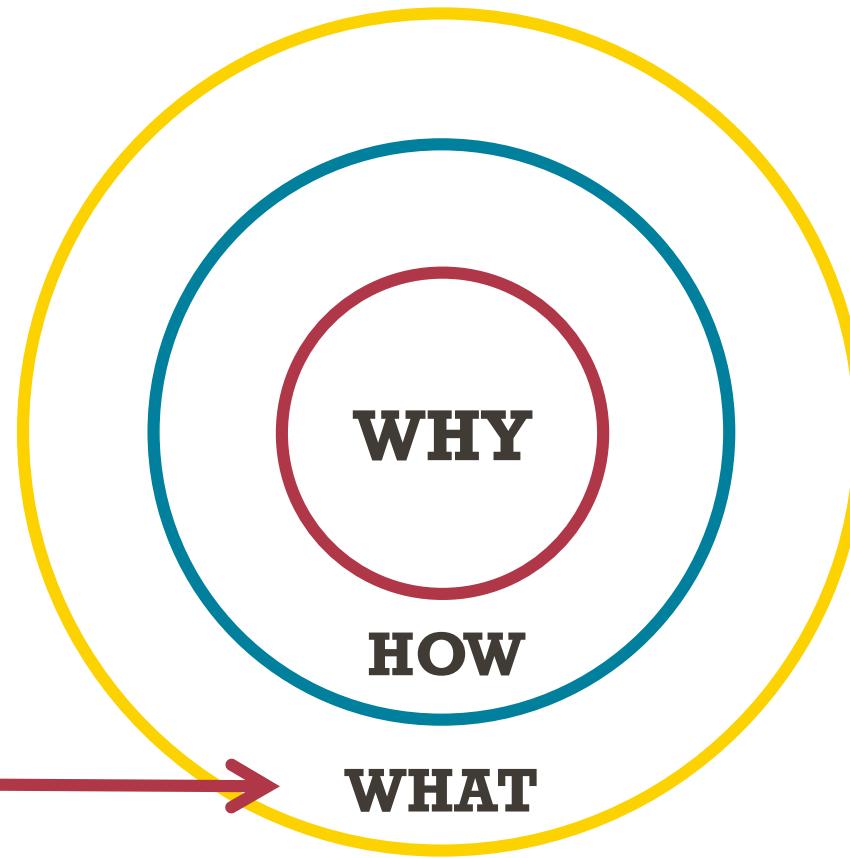
How = Usage of data

Why = Business understanding

What as a starting-point

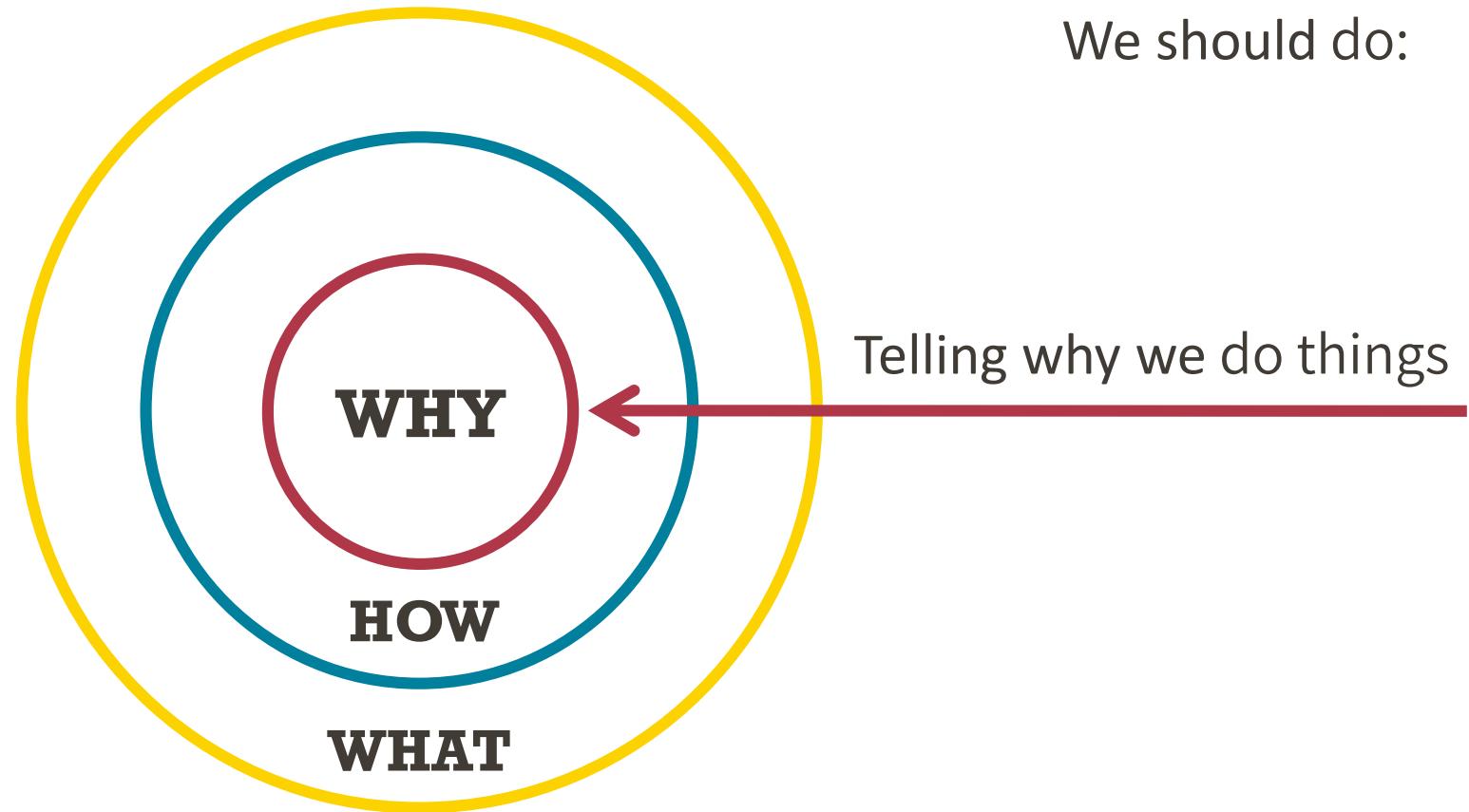
We are good at:

We should do:



Why as a starting-point

We are good at:

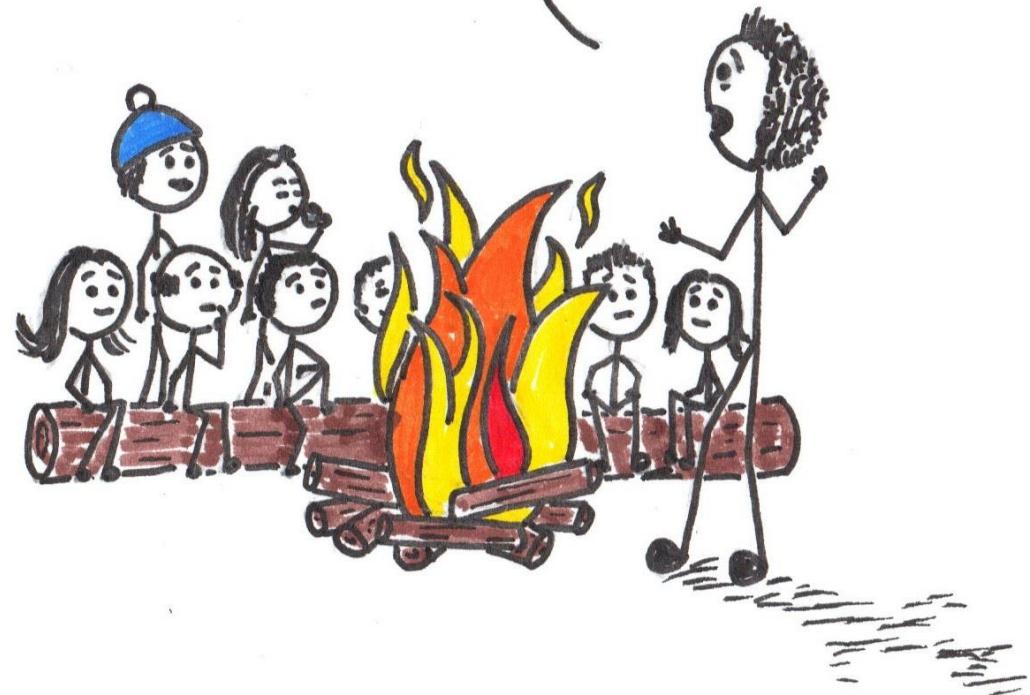


We should do:

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

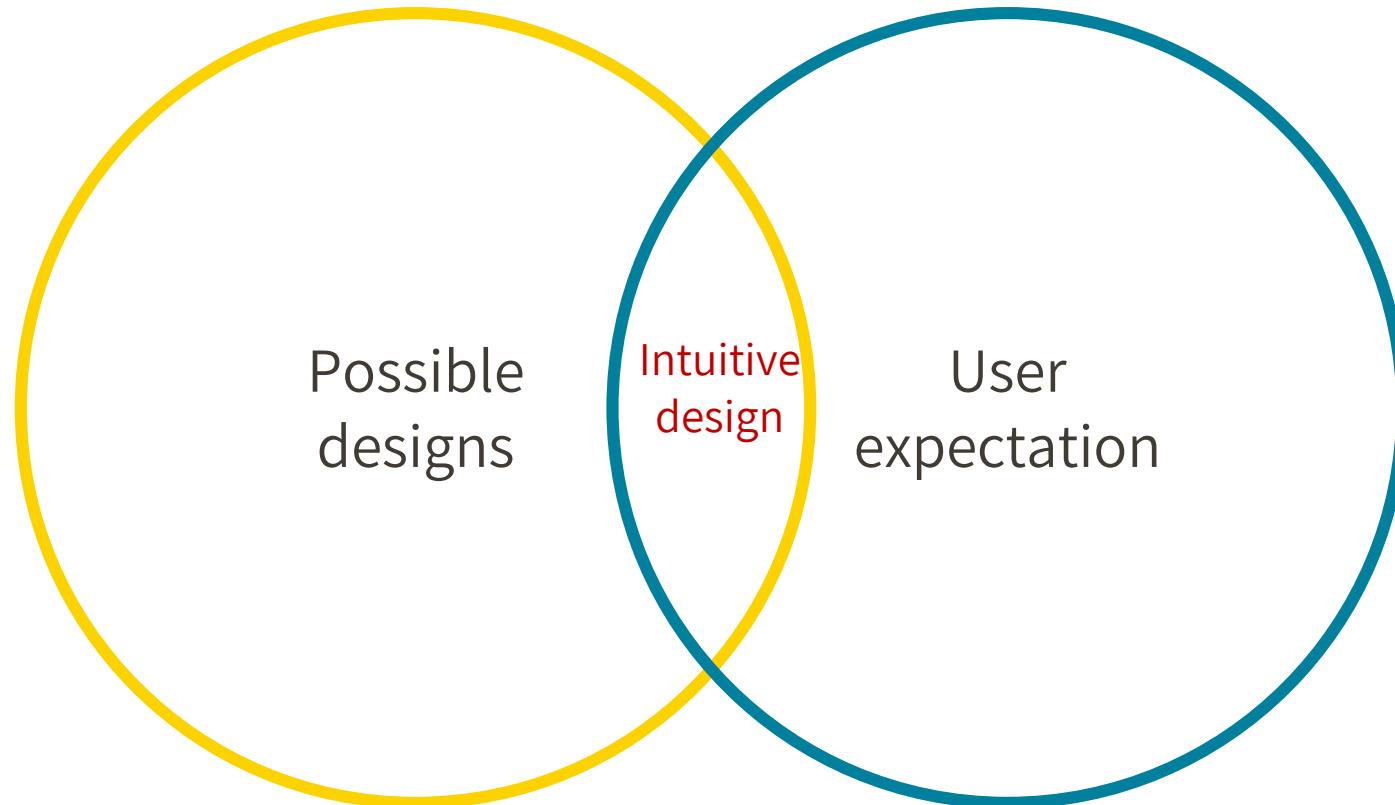


Practical use & some additional features

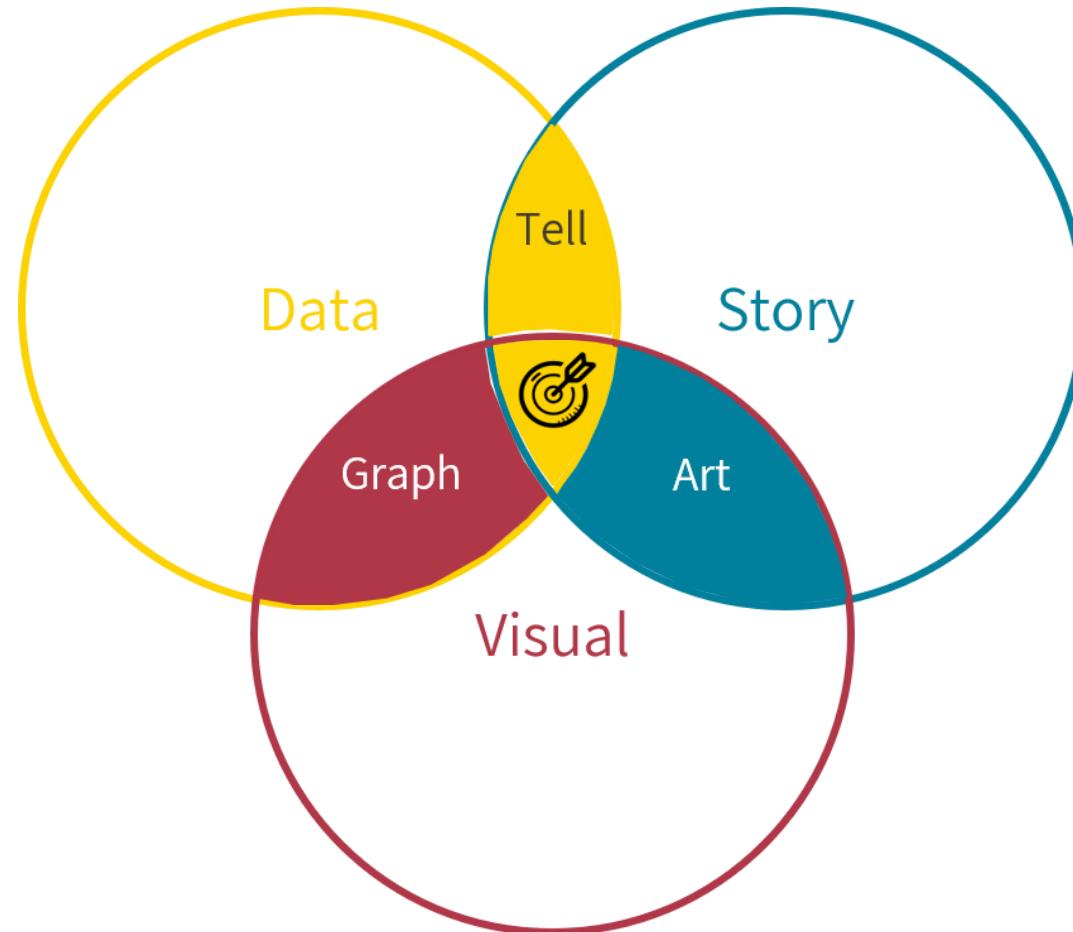
Add context



Make it intuitive



Find the right balance



Define your type of storytelling



Describe



Declare



Explore

Define your route (click-path)



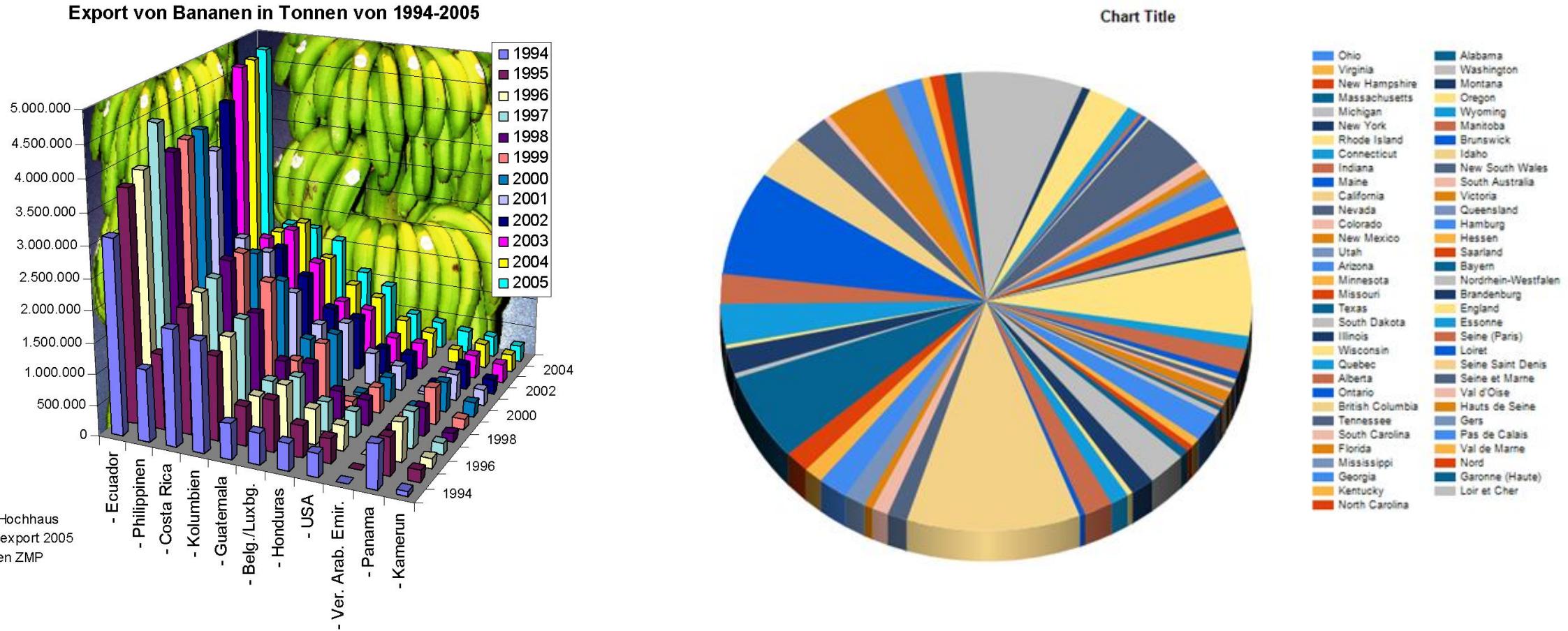
Think about your start & end-point



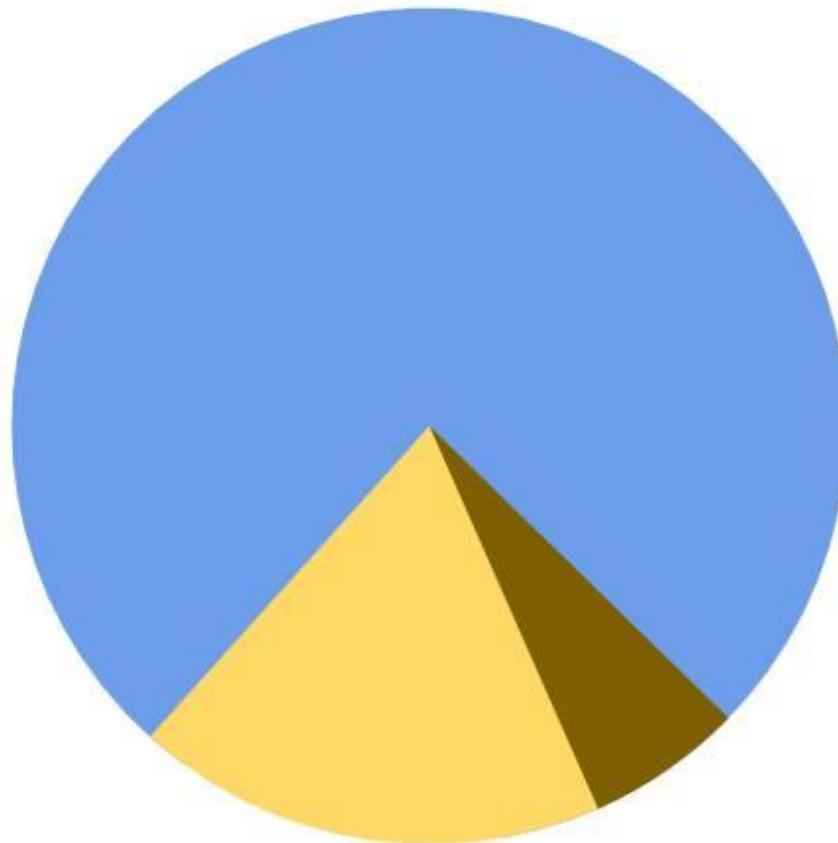
Remove all bullshit!



Visualization



Visualization



Sky

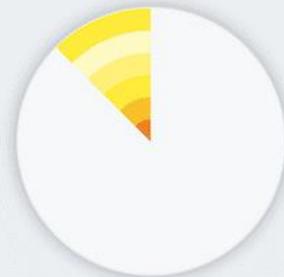
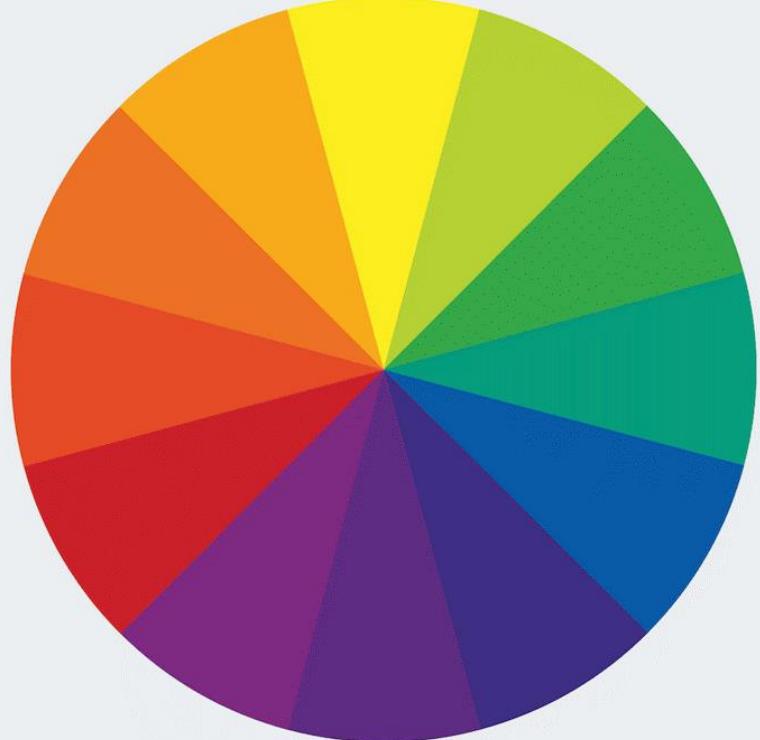


Sunny side of pyramid



Shady side of pyramid

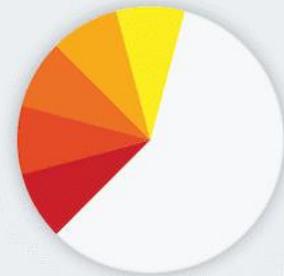
Color usage



MONOCHROMATIC



COMPLEMENTARY



ANALOGOUS



TRIADIC



MARIOKART

DELUXE

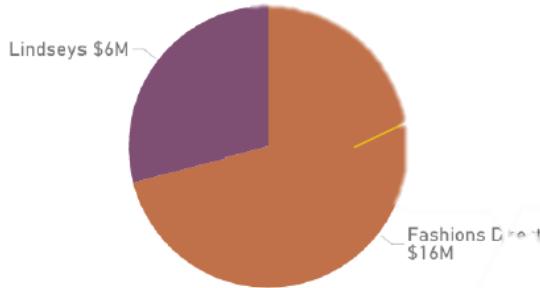
8

TM

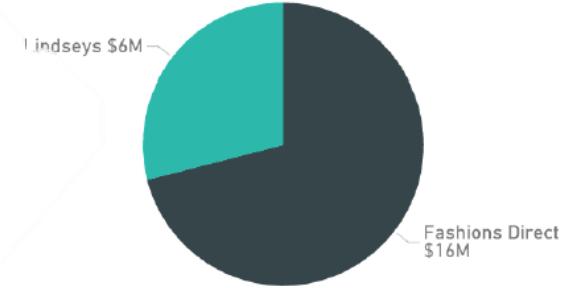
1	King Boo	45
▲ 2	Lakitu	32
3	Villager	30
▼ 4	Shy Guy	27
5	Iggy	23
6	Ludwig	21
▲ 7	Roy	16
▼ 8	Peach	15
▼ 9	Cat Peach	14
10	Villager	10
11	Luigi	7
12	Mario	6

Consistency

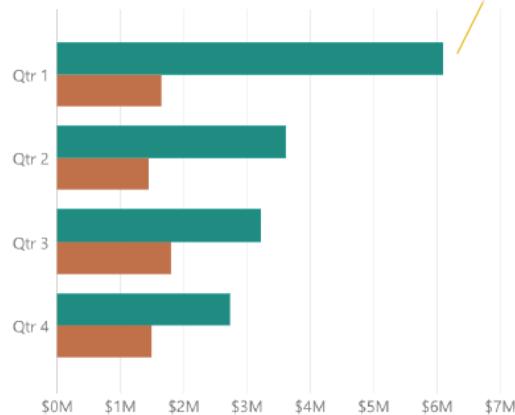
This Year Sales by Chain



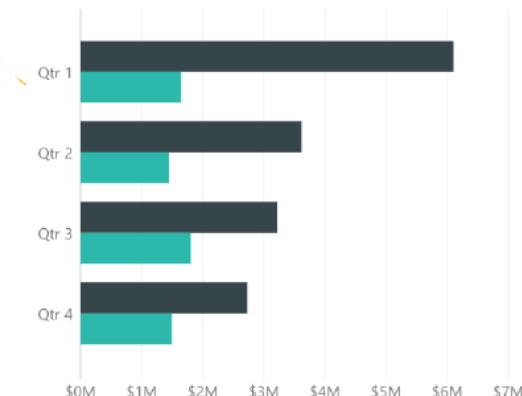
This Year Sales by Chain



This Year Sales by Quarter and Chain



This Year Sales by Quarter and Chain



Total Volume
IN 2014

50K

Market Share
LAST 12 MONTHS

32.86%

Our Total Volume
IN 2014

16K

Sentiment

68

Sentiment Gap

% Units Market Share vs. % Units Market Share Rolling 12 Months BY MONTH

● Units Market Share ● Units Market Share Rolling 12 Months



Total Units Overall BY SEGMENT

Productivity

Convenience

Moderation

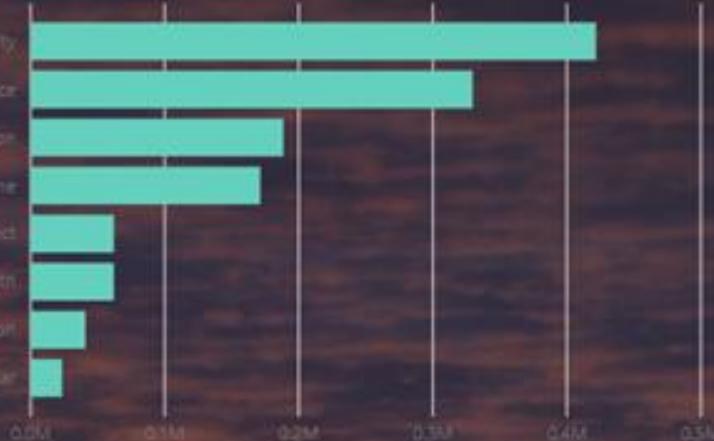
Extreme

Select

Youth

All-Season

Regular



Total Units YTD Variance % BY MONTH, MANUFACTURER

Manufacturer: ● Alqui ● Quibus ● Natura ● VanArdel ● Fama ● Leo ● Barbia ● Victus ● Cintus ● Abbas ● Salvus ● Pneum



Total Units YTD BY MANUFACTURER, REGION



Total Units for 2014 BY MONTH, MANUFACTURER

Manufacturer: ● Alqui ● Natura ● Pneum ● VanArdel



Industry % Market Share YOY Change BY ROLLING PERIOD, REGION

Region: ● Central ● East ● West

1/2/2015

6/30/2015

Consumer

Corporate

Home Office

Small Business

Furniture

Office Supplies

Technol...

Central

East

South

West

1,898,401

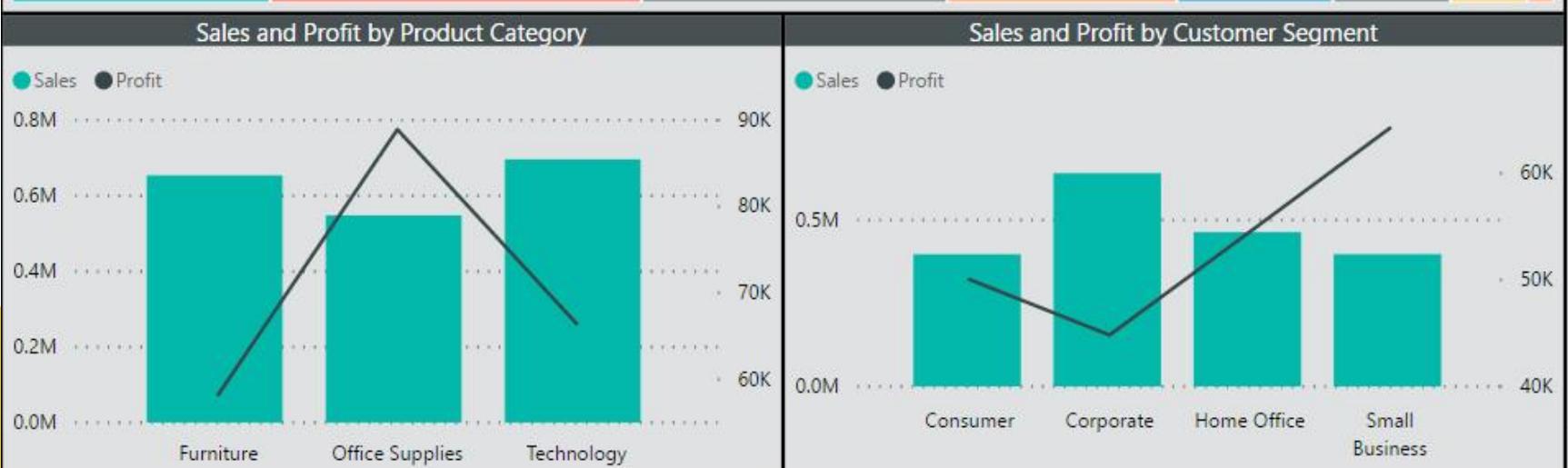
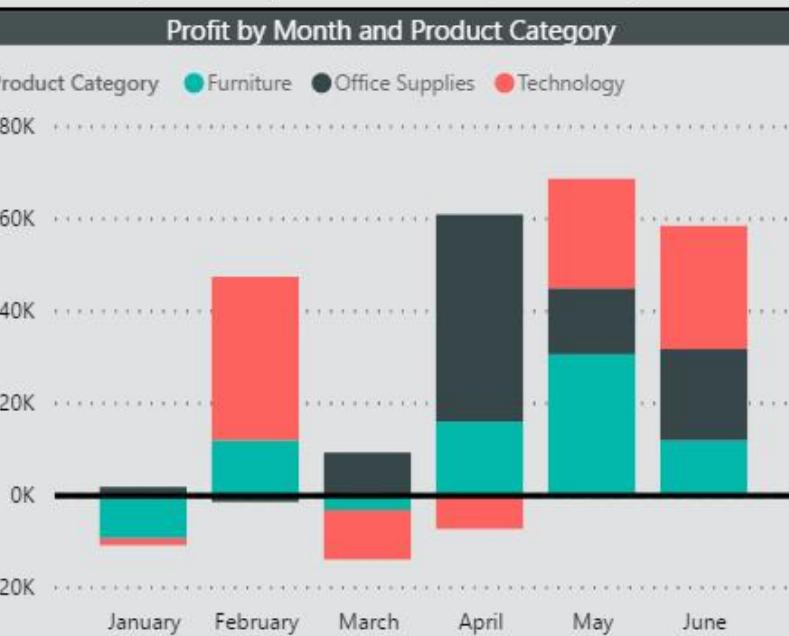
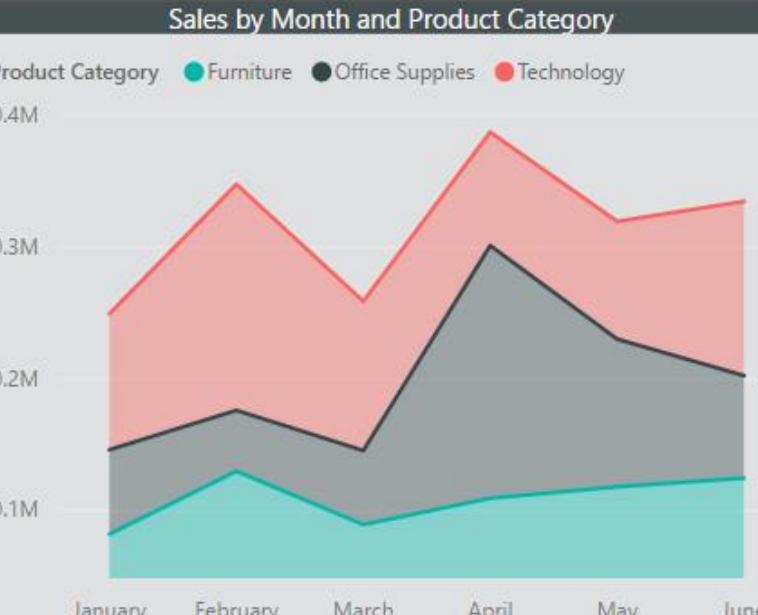
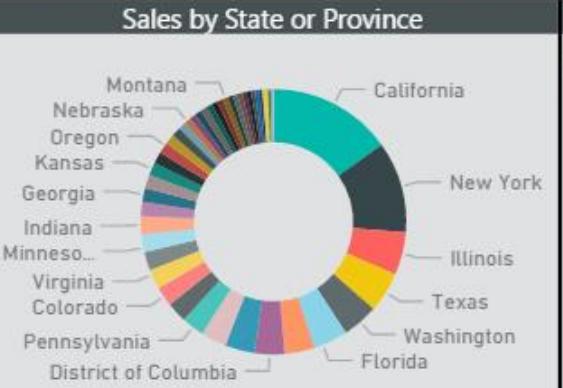
Sales

213,611

Profit

24,879

Quantity ordered new



A photograph of a mountain biker from behind, standing on a rocky outcrop. He is wearing a white helmet, a dark blue jacket, black shorts, and a black backpack. His white mountain bike with red accents is leaning against a rock to his left. The background features a majestic, rugged mountain range with several peaks partially covered in snow and patches of green vegetation. The sky is a clear, vibrant blue.

Send your users
on an adventure!

Storytelling features

Provide easy navigation



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
Lahigh Valley Technologies	\$410,073



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



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

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



Be dynamic

KPI BREAKDOWN



REGION

All

COUNTRY

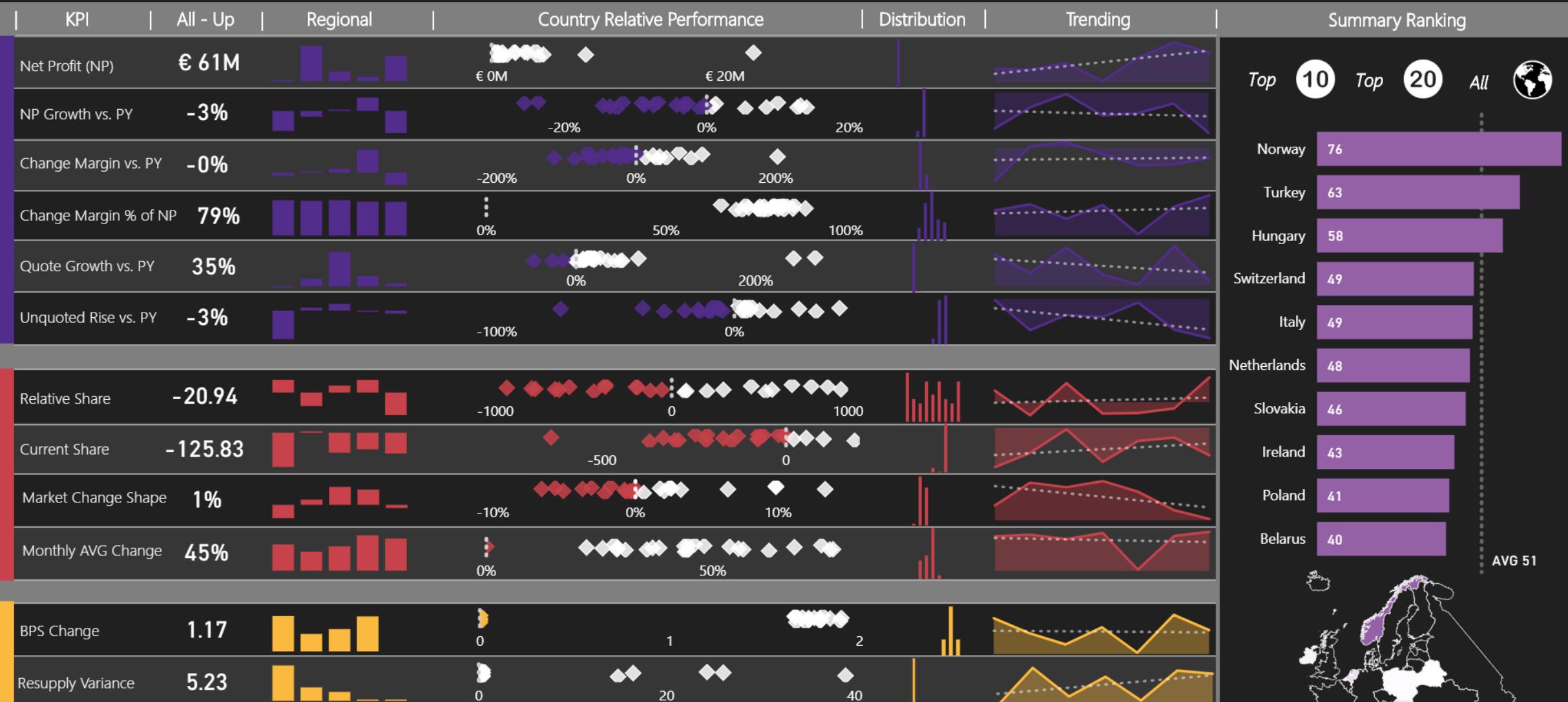
All



Select for FAQ

Decisive Data
insights for decisions

FINANCIAL



SUPPLY

Filters

Date

6/1/2017

12/1/2017

Summary Ranking

0

91

NP Growth vs PY

-30%

16%

Quote Growth

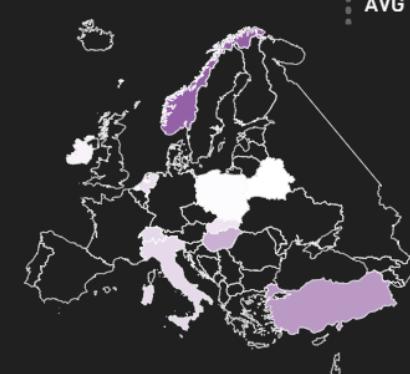
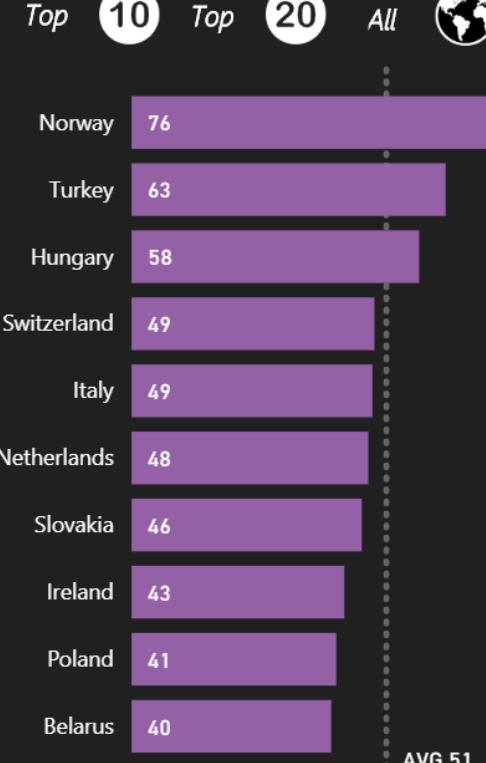
-55%

281%

Market Change Shape

-7%

16%



Have a guided experience



REIMBURSEMENTS BY STATE

CALLOUT PAGES

Opiod Crisis Investigation

Media Discussion

Reimbursements by State

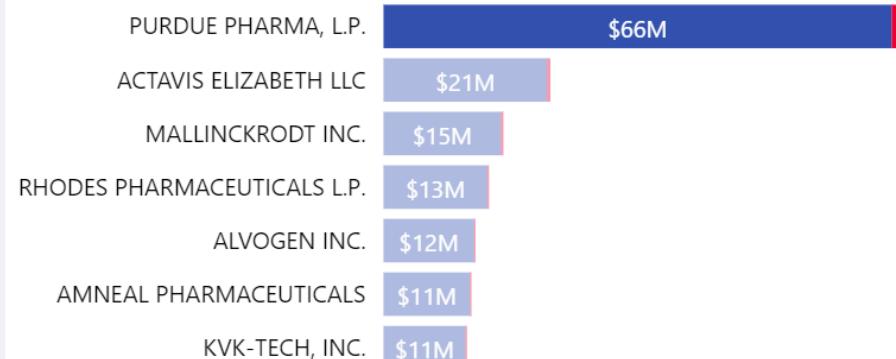
Take Action

Opioid Type

All

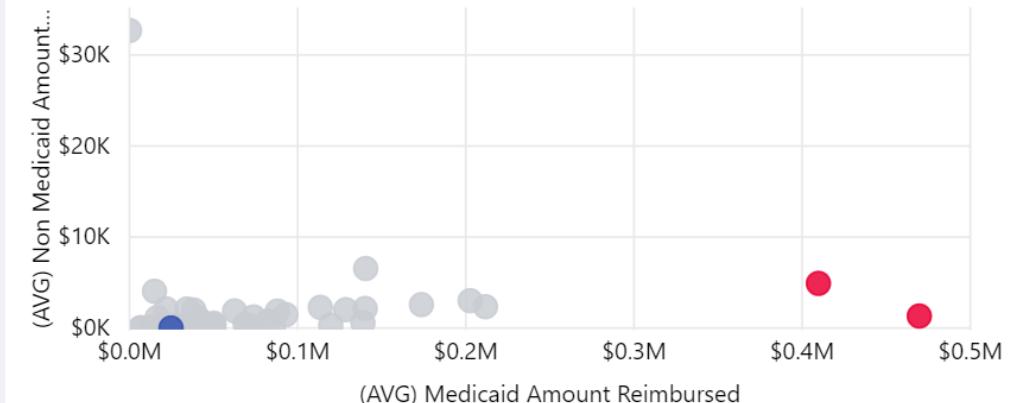
Medicaid Amount Reimbursed and Non Medicaid Amount Reimbursed by Labeler Name

● Medicaid Amount Reimbursed ● Non Medicaid Amount Reimbursed



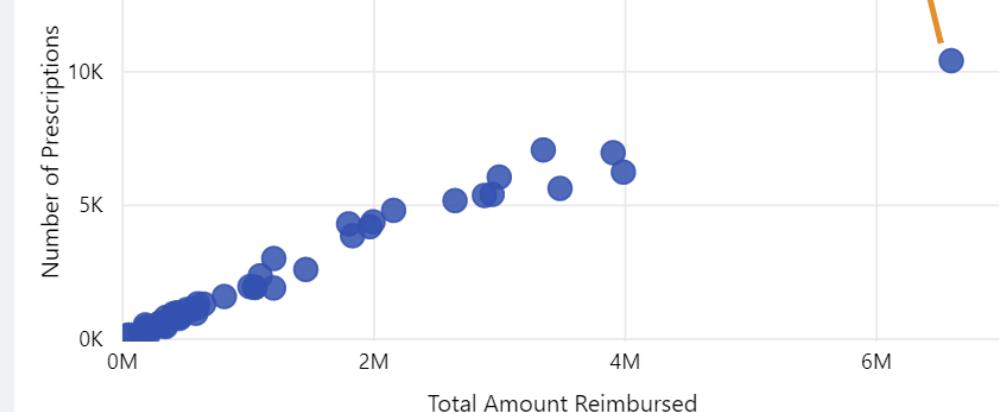
(AVG) Medicaid Amount Reimbursed and (AVG) Non Medicaid Amount Reimbursed by...

● Missouri & North Carolina ● Other ● South Carolina



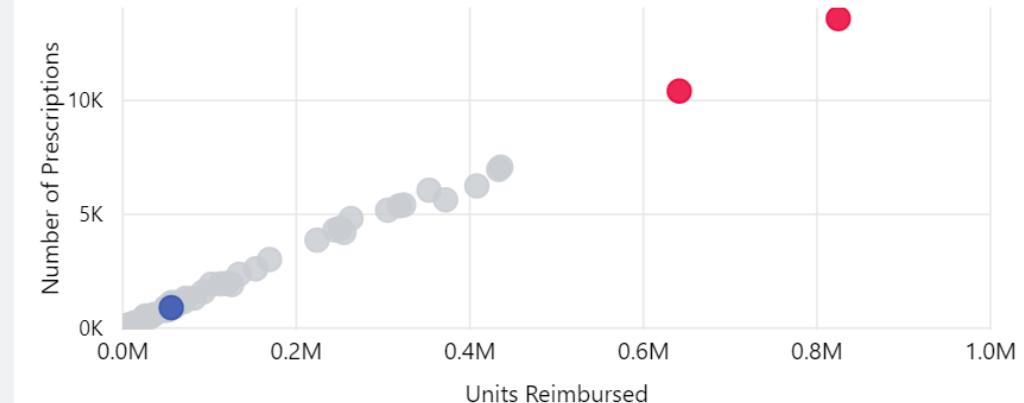
Missouri and North Carolina are at the centre of a lawsuit involving mis-marketing of OxyContin. Purdue settled a lawsuit in 2007 with South Carolina.

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



Power BI Filters Selection

Report Title



Bar Chart

Item

Slicer 1

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

February

March



KPI 1

Slicer 2

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

July

Aug



KPI 2

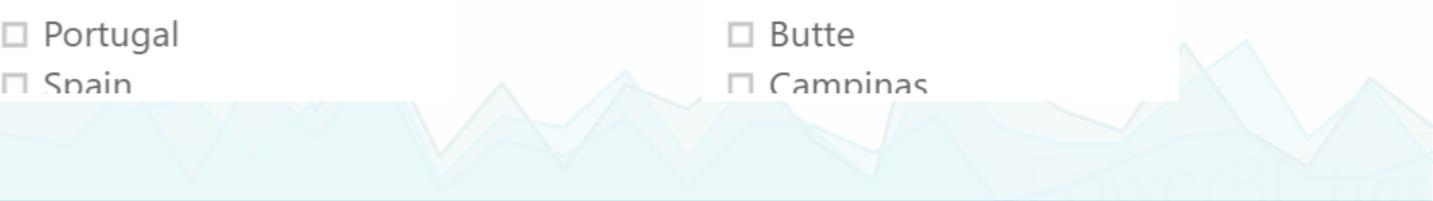
Slicer 3

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

December



KPI 3

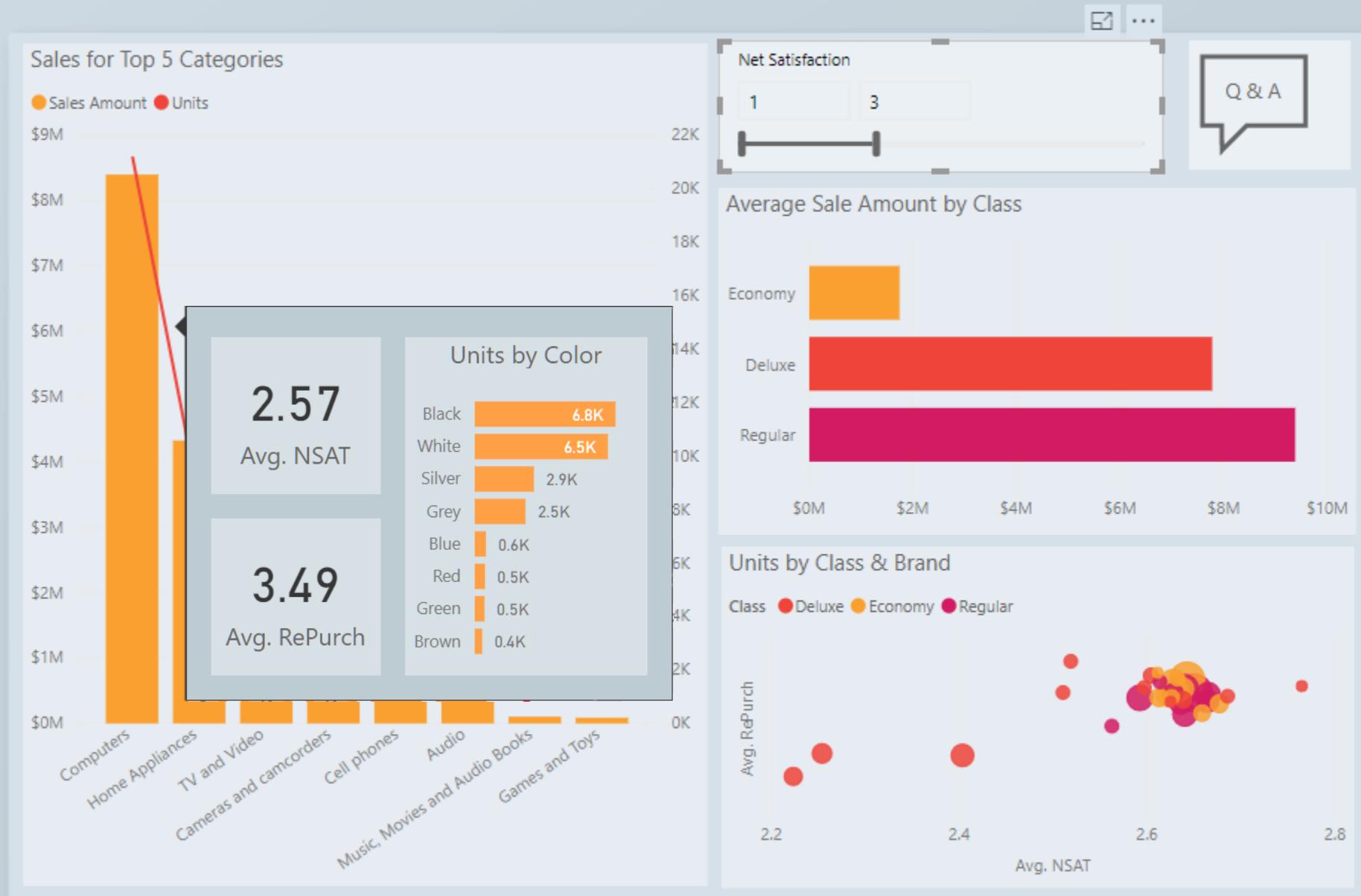




Ensure consistent context



Progressive disclosure





Let them ask questions

SUGGESTED QUESTIONS

sales amount for Germany

sales amount for Germany by year

Add

X

SalesAmount by OrderDate

\$16K

\$14K

\$12K

\$10K

\$8K

\$6K

\$4K

\$2K

\$0K

Showing sales amount sorted by order date when Germany sales were ordered

Filters (including highlights) from the source page have been applied.

Save and close

Cancel

year (Sales > Date Hierarchy > Year)

sale (Sales)

date hierarchy (Sales > Date Hierarchy)

manufacturer (Sales > Manufacturer)

order date (Sales > OrderDate)

sales order ID (Sales > SalesOrderID)

sales channel code (Sales > SalesChannelCode)

prod ID (Sales > ProdID)

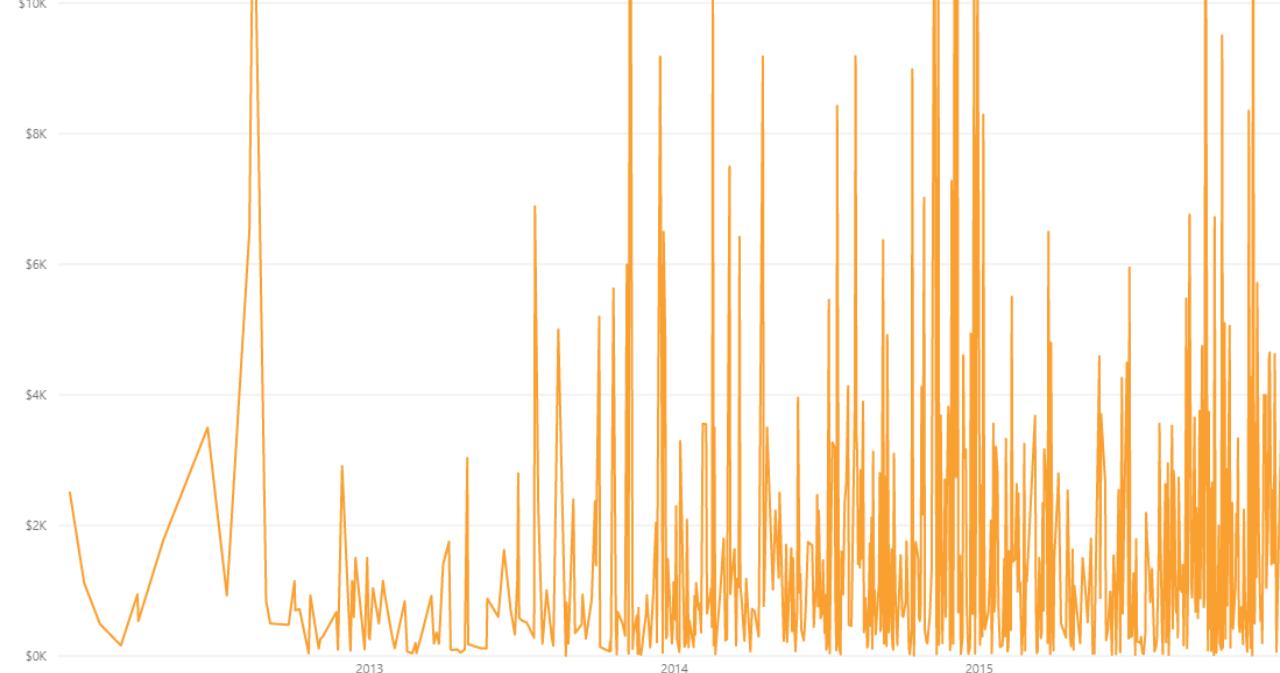
style name (Sales > StyleName)

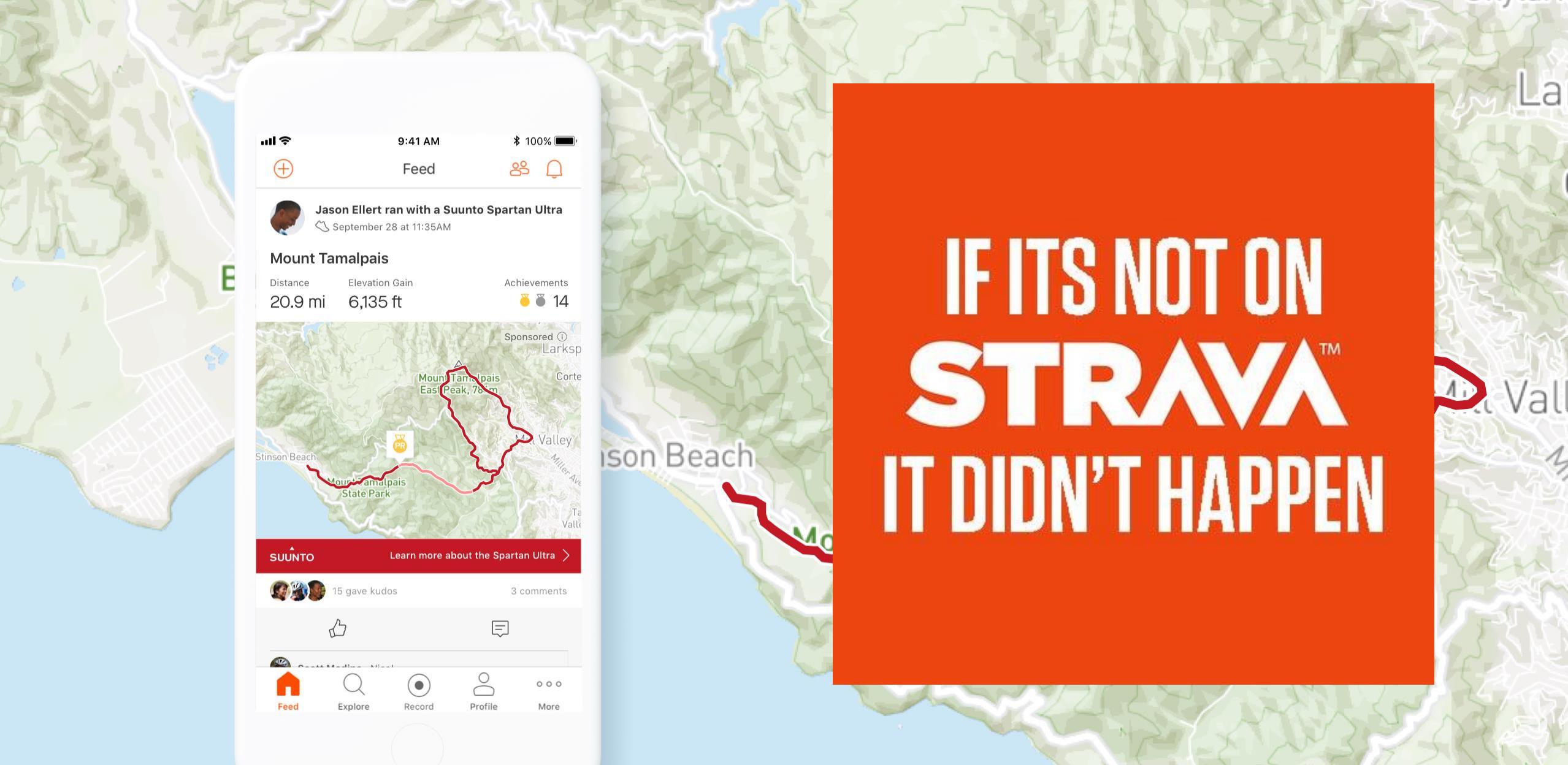
customer account number (Sales > CustomerAccountNumber)

store key (Sales > StoreKey)

year by style name

YEAR BY CUSTOMER ACCOUNT NUMBER





Power Platform
World Tour

#PowerplatformWT
@MarcLelijveld

Background, theme & wallpaper

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

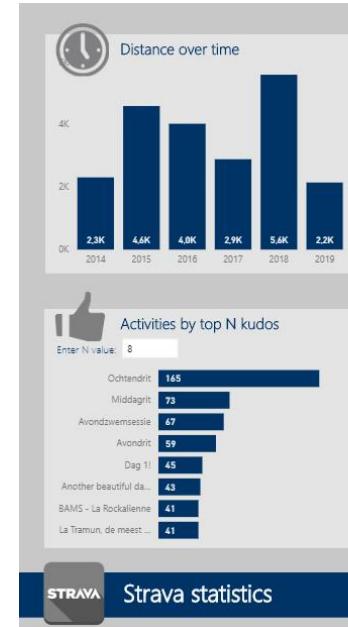
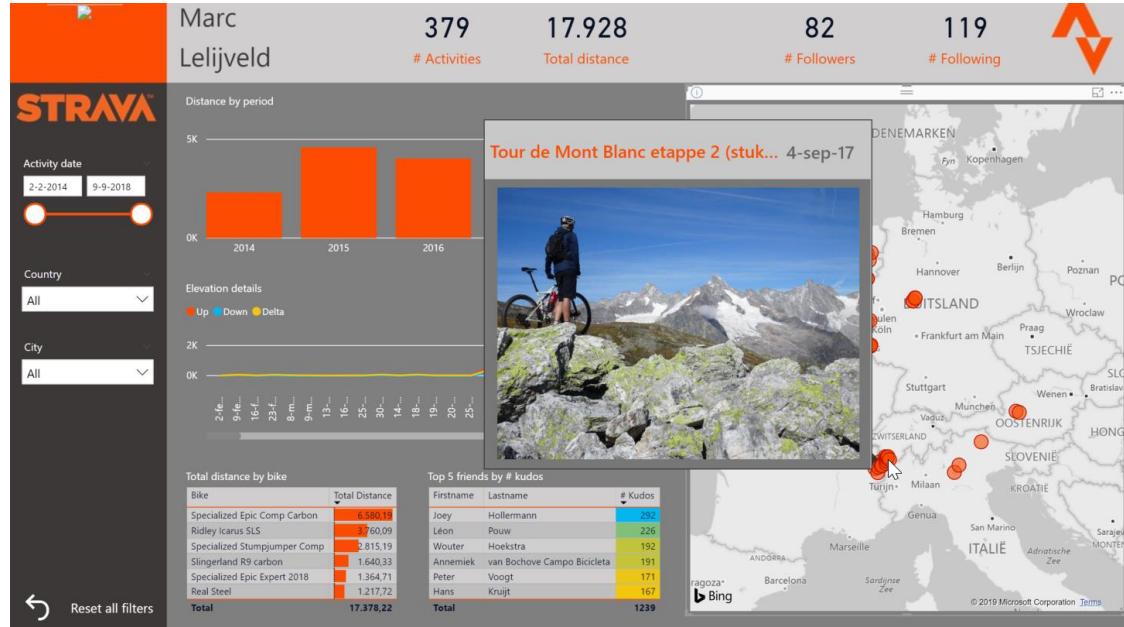
Demo strava data – part 2

- 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)



Marc Lelijveld



459



21.596

Distance (KM)



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!**

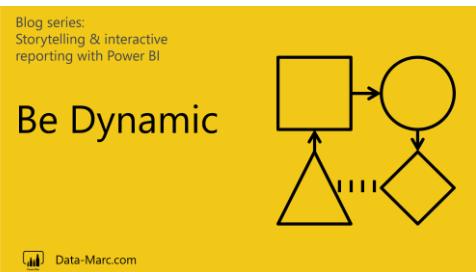
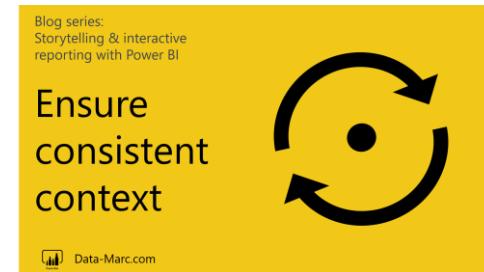
Data – Marc

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

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CATEGORY: STORYTELLING



Download for free!

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



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Macaw Netherlands

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- linkedin.com/in/MarcLelijveld
- 🌐 Data-Marc.com



The booklet is titled "Power BI Cheat Sheet" and is dated April 2019. It includes sections for "Power Query" and "Data Model". The "Power Query" section contains tips like "Give every step an explanatory name and merge steps of the same type, for better M coding experience." and "Always use a separate Date table in your data model. Mark it as a Date Table, improves clarity and manageability of your report as transformations are located where you expect them, it also improves query speed of the model and reduces refresh duration." The "Data Model" section contains tips like "Turn off 'Enable Load' for queries/tables that you don't need in the Data Model." and "Use DAX Studio to capture all DAX queries executed on your Premium Capacity." The "Resources" section lists links to Power Query M Formula Reference, Power BI Cheat Sheet GitHub, and Tabular Editor.