

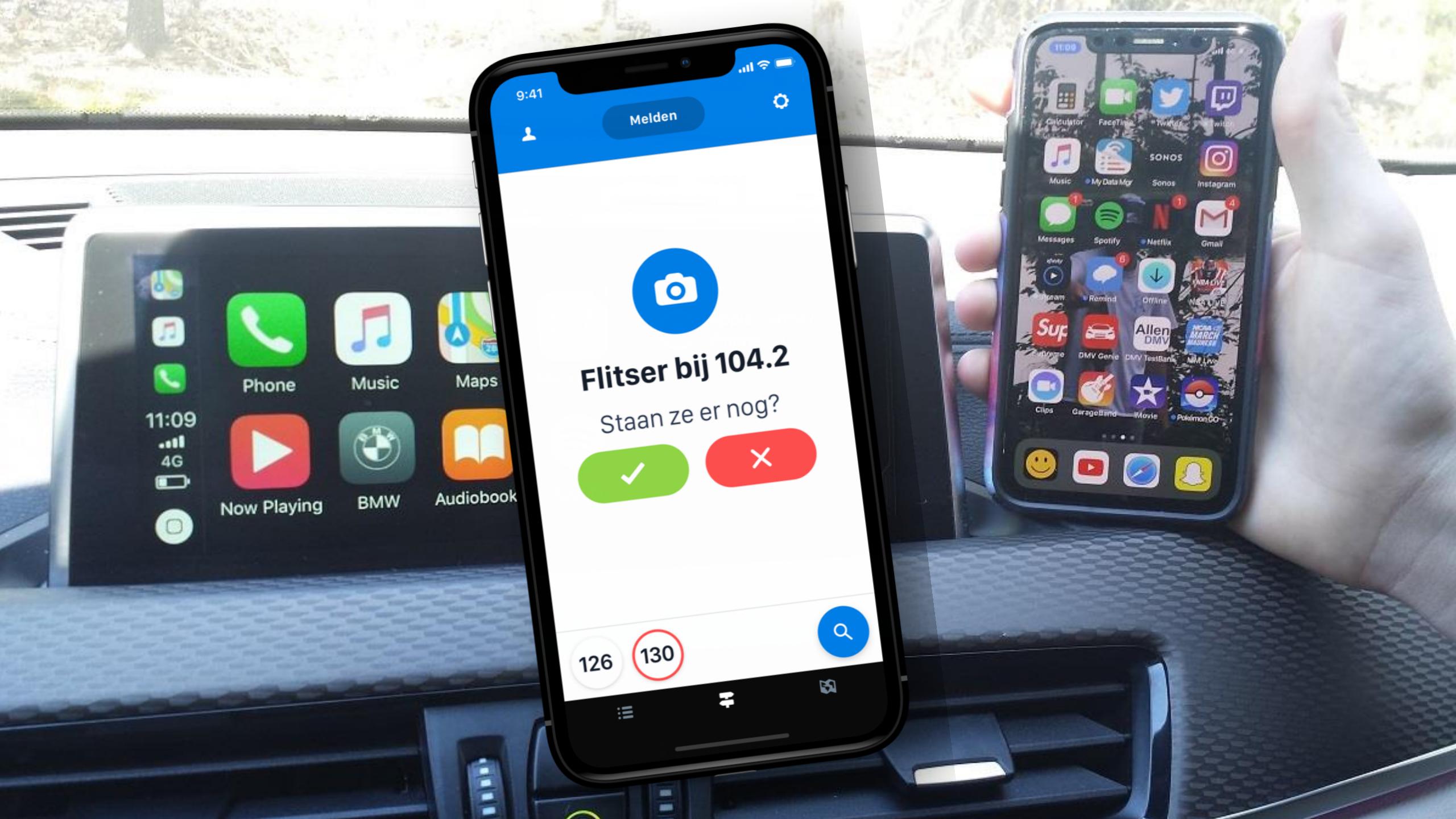
# Storytelling & Interactive reporting













# Marc Lelijveld

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Macaw Netherlands



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🐦 @MarcLelijveld

linkedin.com/in/MarcLelijveld

🌐 Data-Marc.com



A photograph of a modern office common area. In the foreground, a group of five people are gathered around a long wooden conference table, engaged in a discussion. One person is standing, while four others are seated on stools. In the background, there's a comfortable seating zone with grey armchairs, a small round table, and a floor lamp. A large window with white curtains looks out onto a cityscape. The overall atmosphere is professional and collaborative.

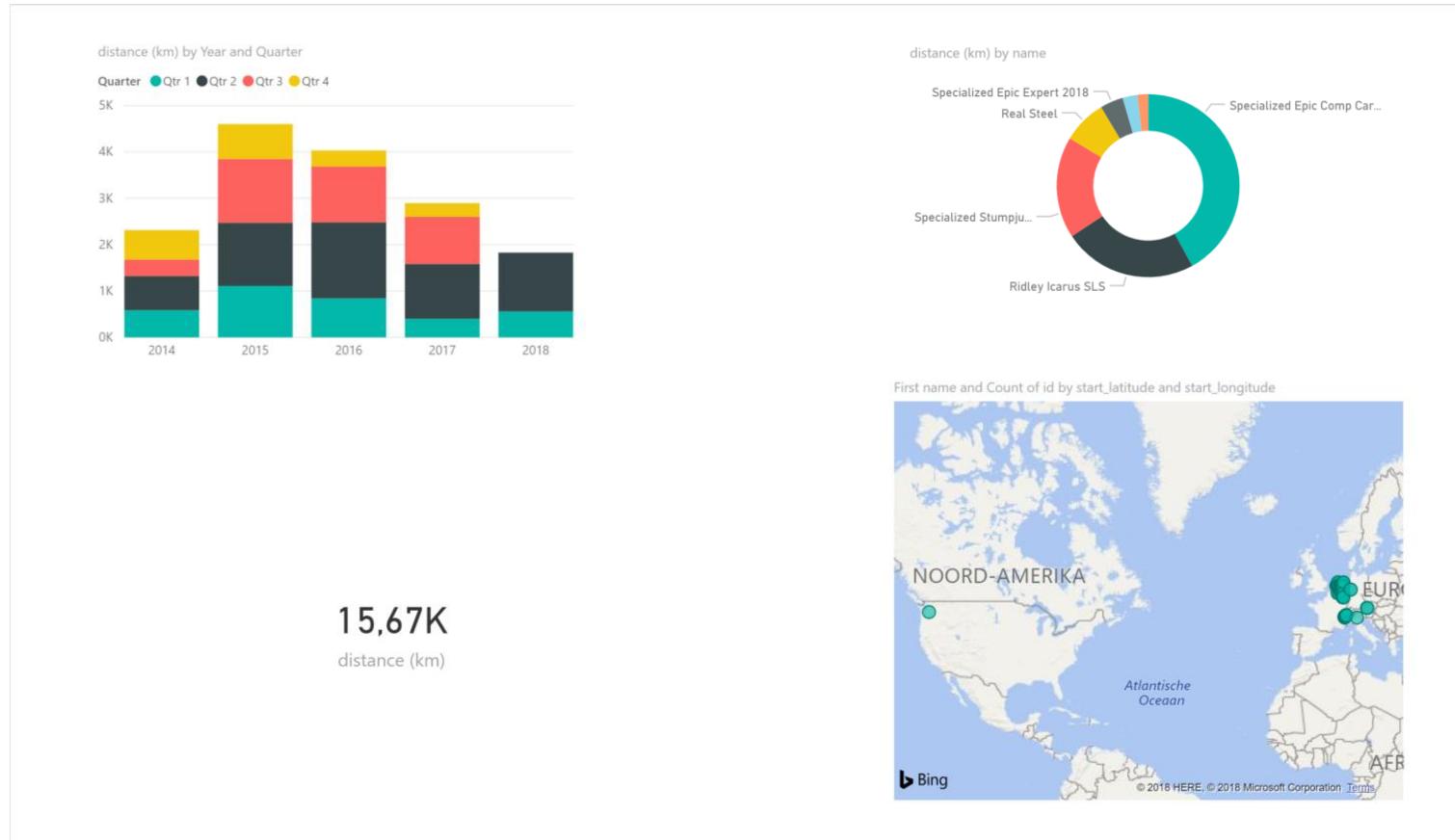
# What we cover today

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

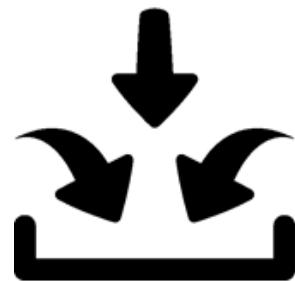
# Why storytelling?



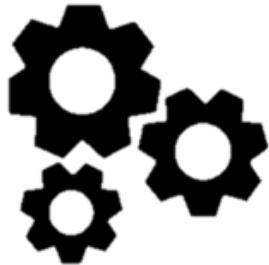
# Classic reports



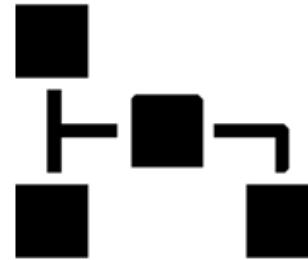
# What we used to do



Collect



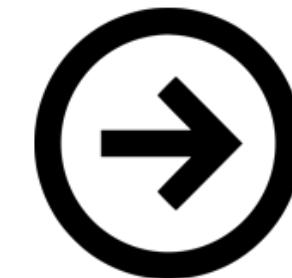
Transform



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



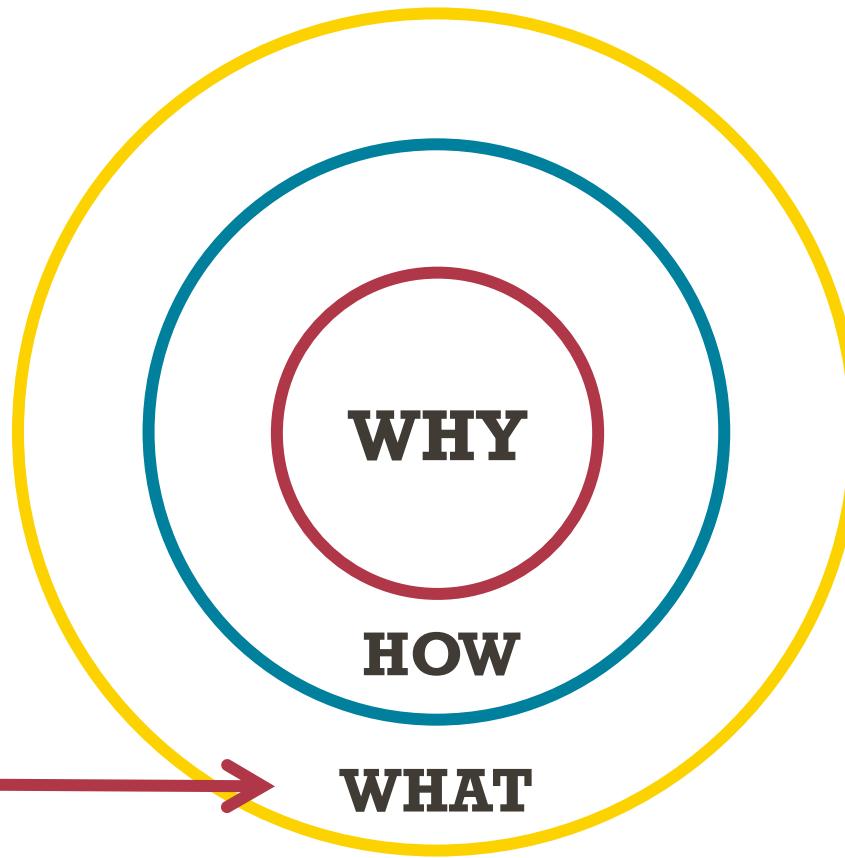
How = Usage of data

Why = Business understanding

# What as a starting-point

We are good at:

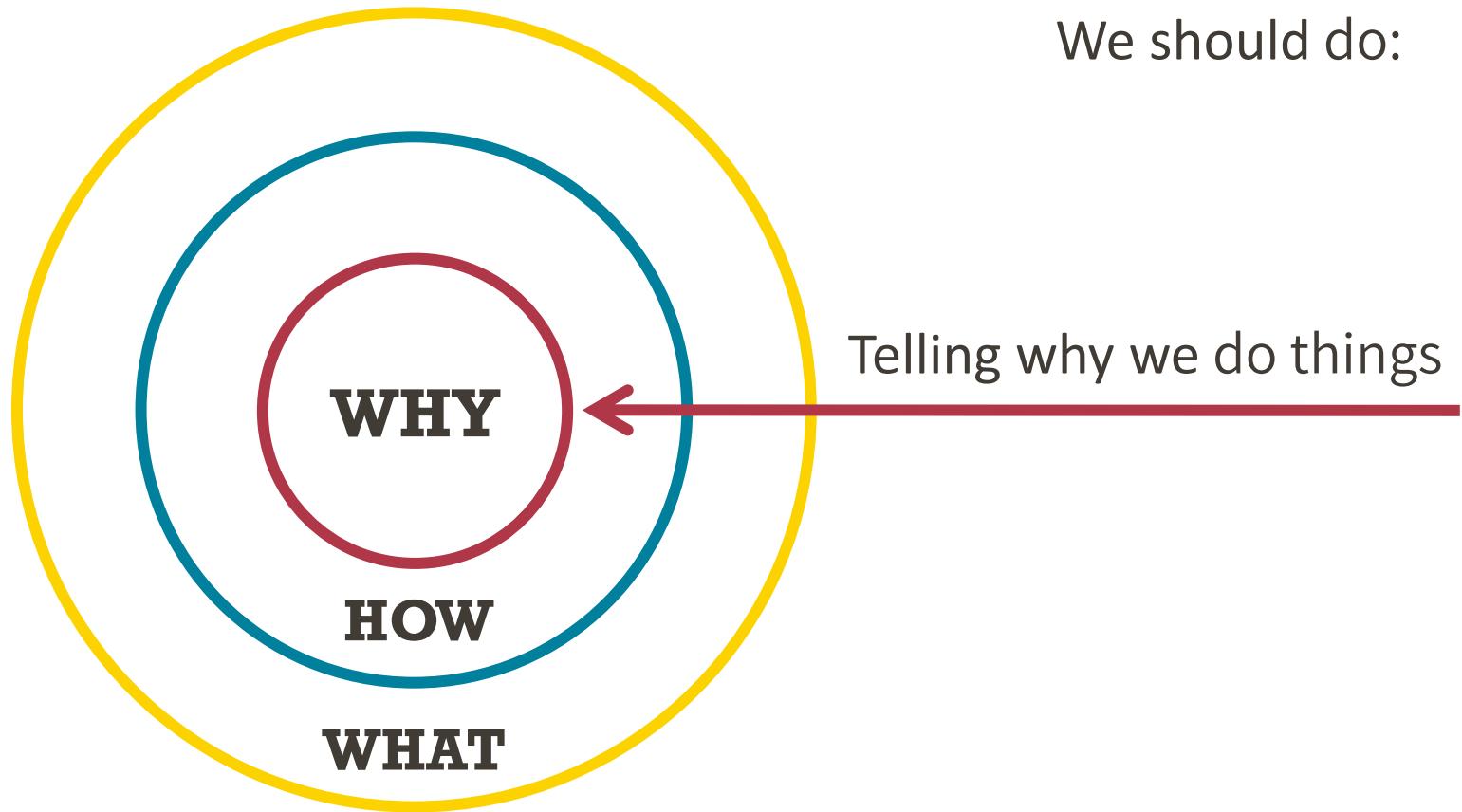
We should do:



Telling what we do

# 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



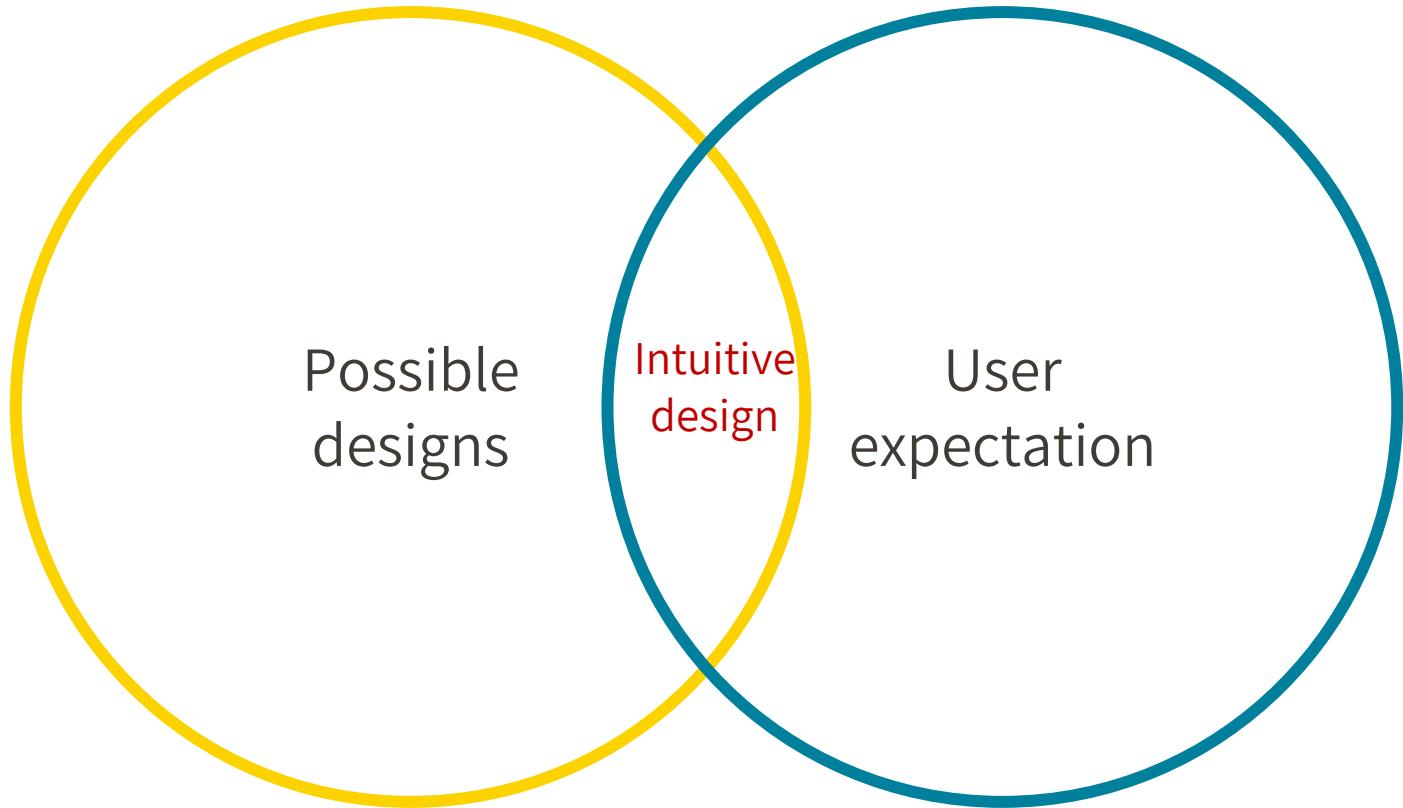
# Practical use & some additional features



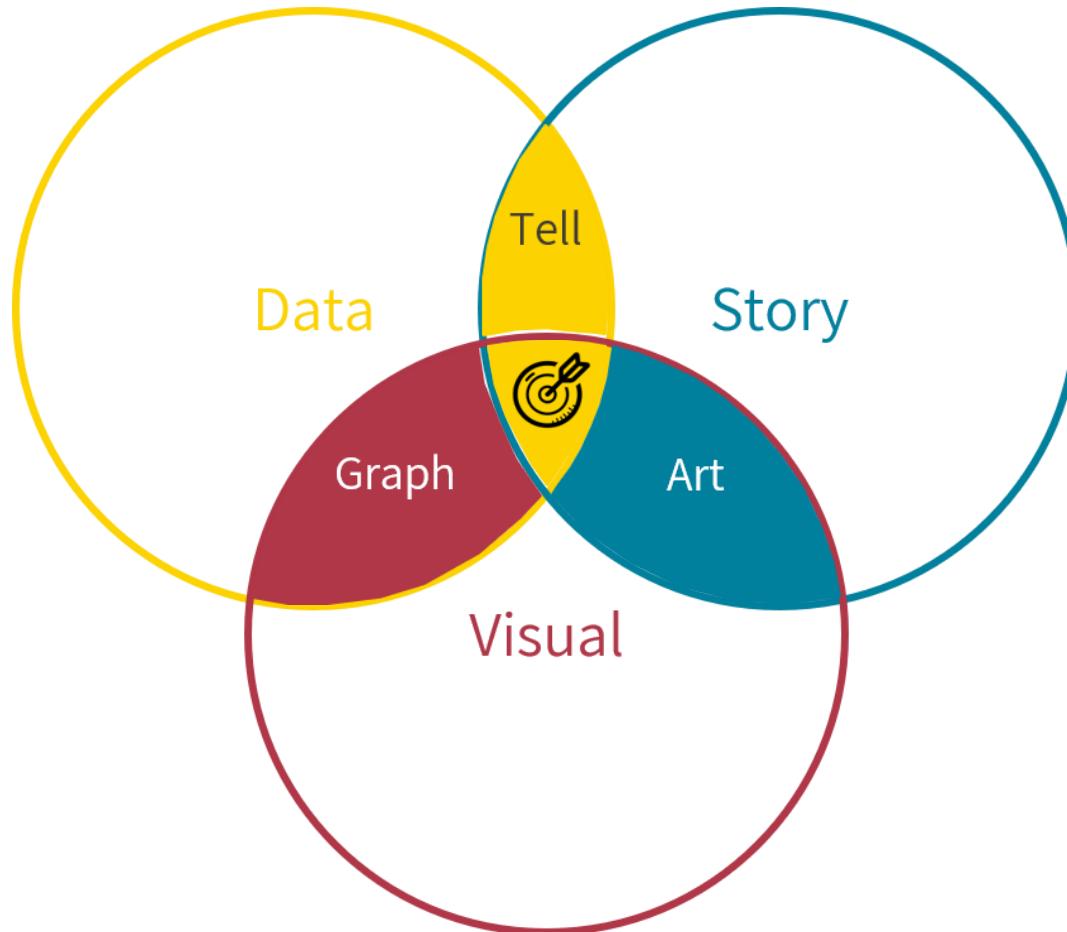
# Add context



# Make it intuitive



# Find the right balance



# Define your type of storytelling



Describe



Declare

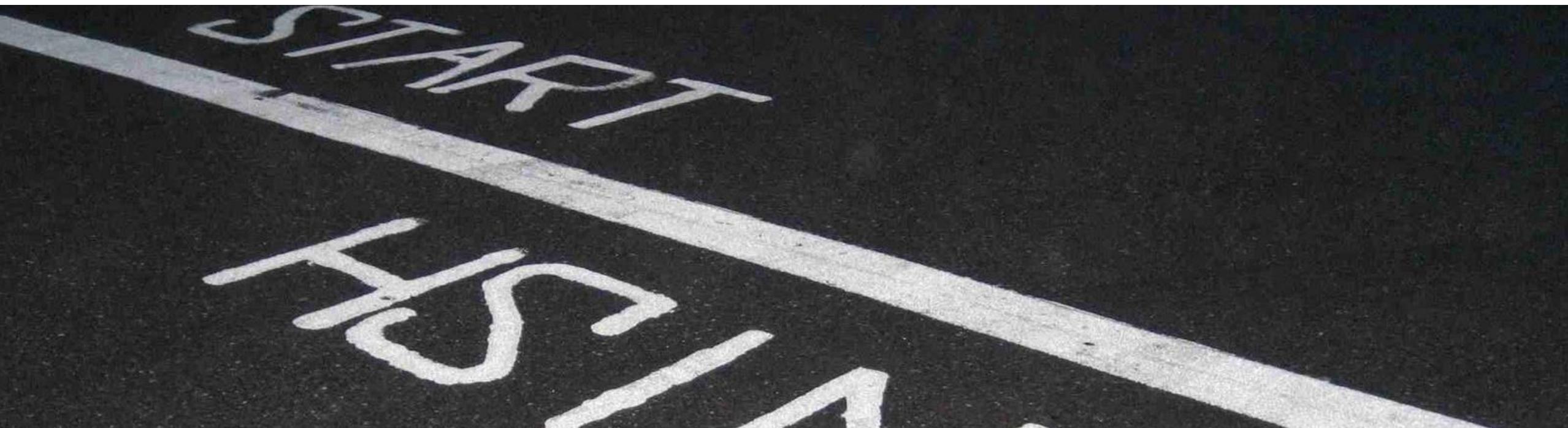


Explore

# Define your route (click-path)



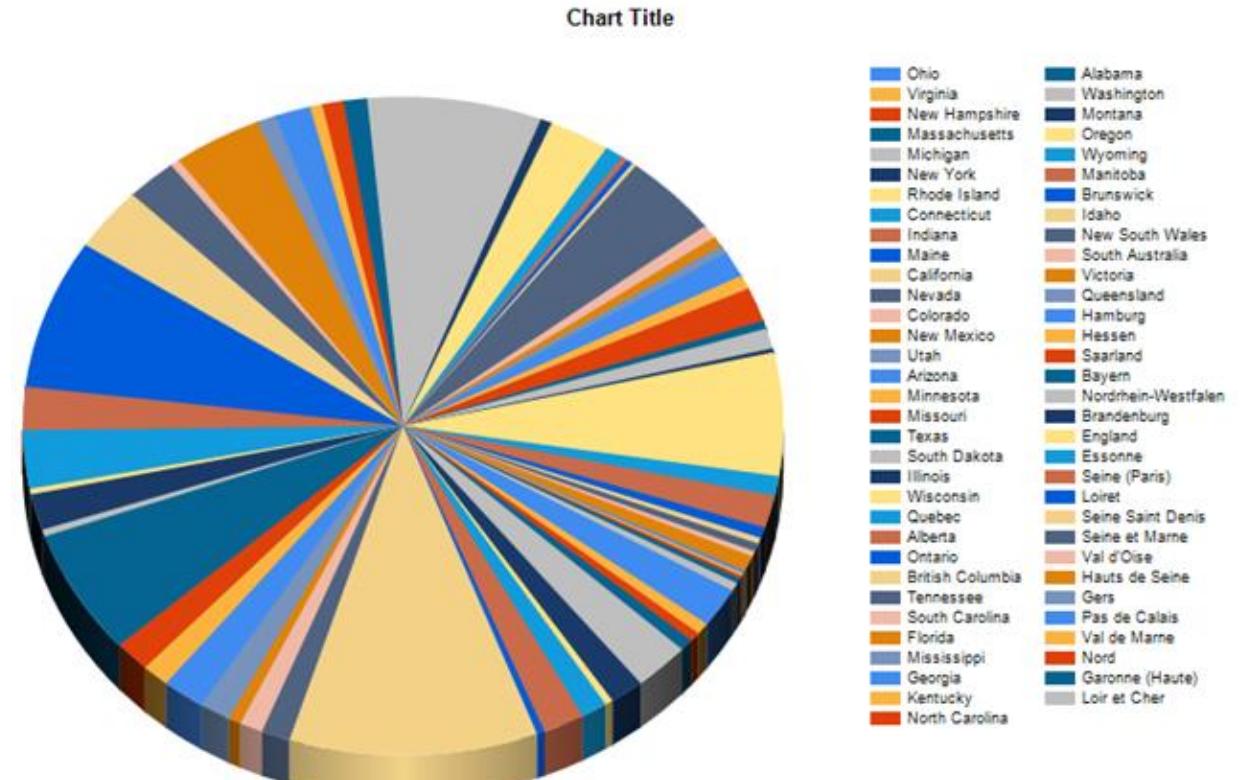
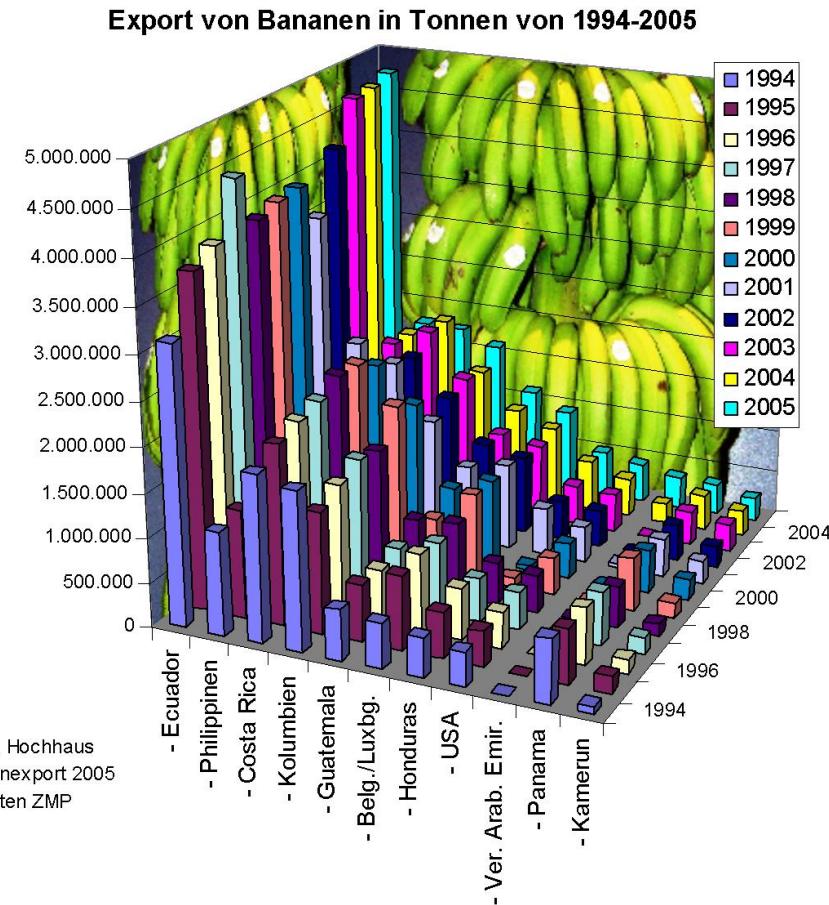
# Think about your start & end-point



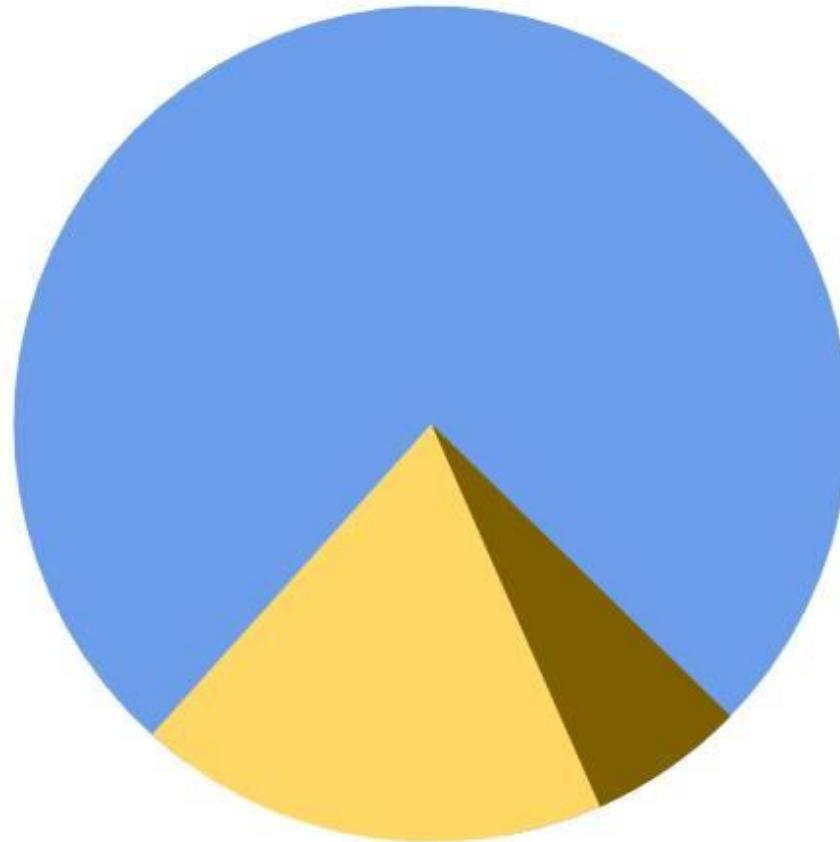
# Remove all bullshit!



# Visualization



# Visualization



Sky

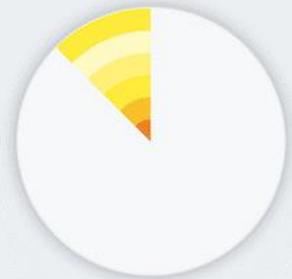


Sunny side of pyramid



Shady side of pyramid

# Color usage



MONOCHROMATIC



COMPLEMENTARY



ANALOGOUS



TRIADIC



MARIOKART

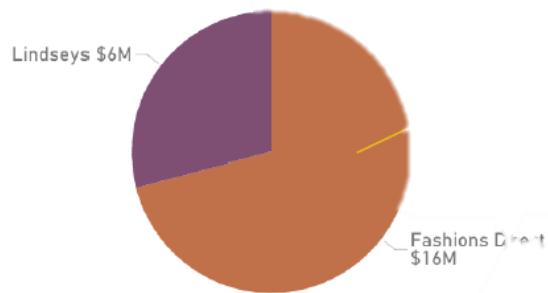
DELUXE

8™

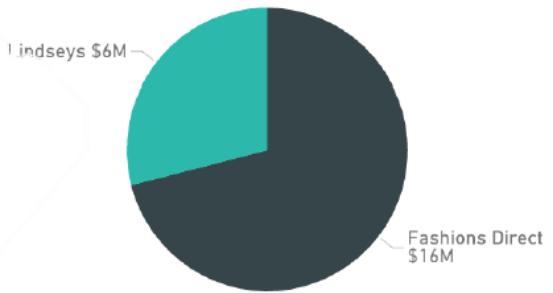
1	King Boo	45
▲ 2	Lakitu	32
3	Villager	30
▼ 4	Shy Guy	27
5	Iggy	23
6	Ludwig	21
▲ 7	Roy	16
▼ 8	Peach	15
▼ 9	Cat Peach	14
10	Villager	10
11	Luigi	7
12	Mario	6

# Consistency

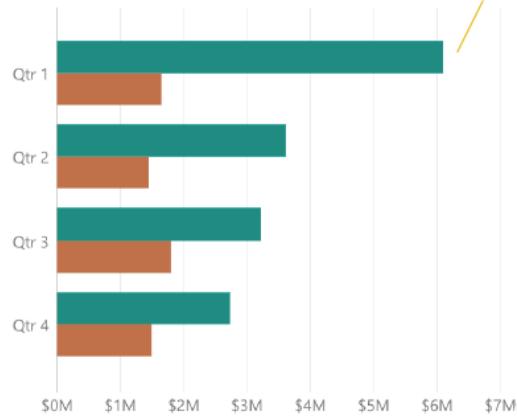
This Year Sales by Chain



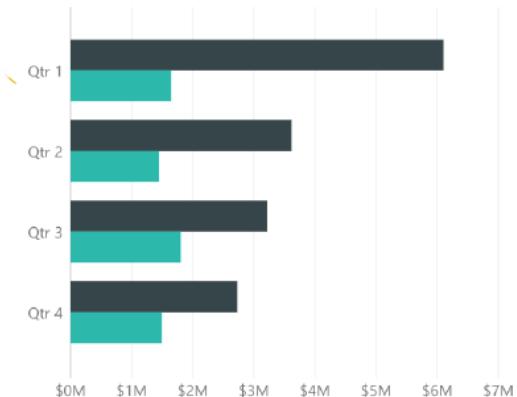
This Year Sales by Chain



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

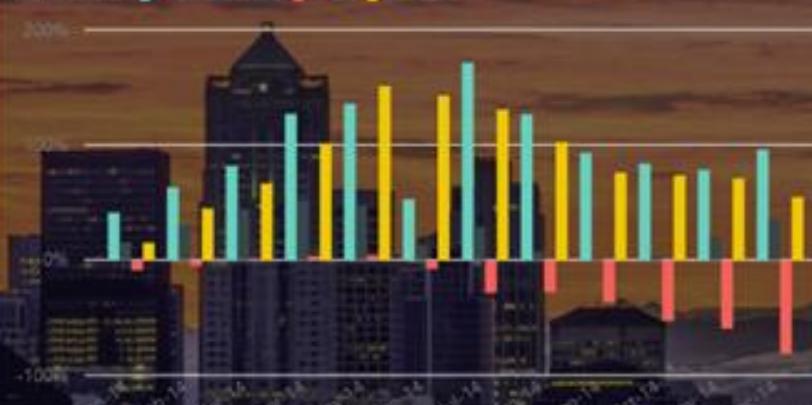


### Total Units Overall BY SEGMENT



### Total Units YTD Variance % BY MONTH, MANUFACTURER

Manufacturer: ● Alqui ● Quibus ● Natura ● VanArdel ● Fama ● Leo ● Barbius ● Victus ● Abbas ● Cintus ● Salvus ● Curius ● West ● East



### Total Units YTD BY MANUFACTURER, REGION



### Total Units for 2014 BY MONTH, MANUFACTURER

Manufacturer: ● Alqui ● Natura ● Pneum ● VanArdel ● Fama ● Leo ● Barbius ● Victus ● Abbas ● Cintus ● Salvus ● Curius ● West ● East



### 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

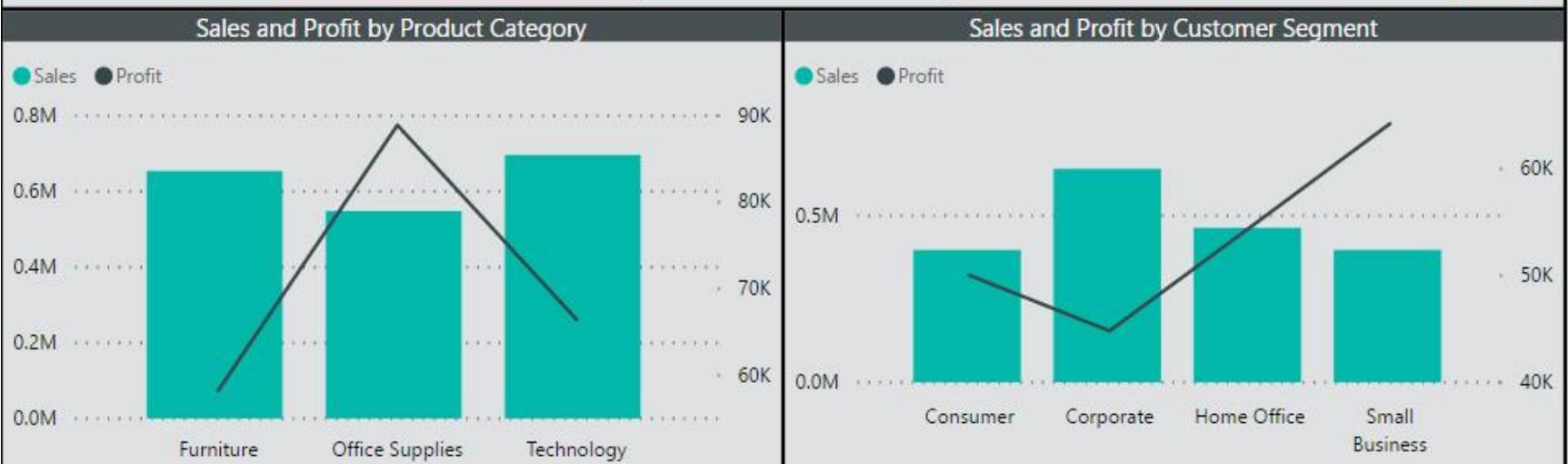
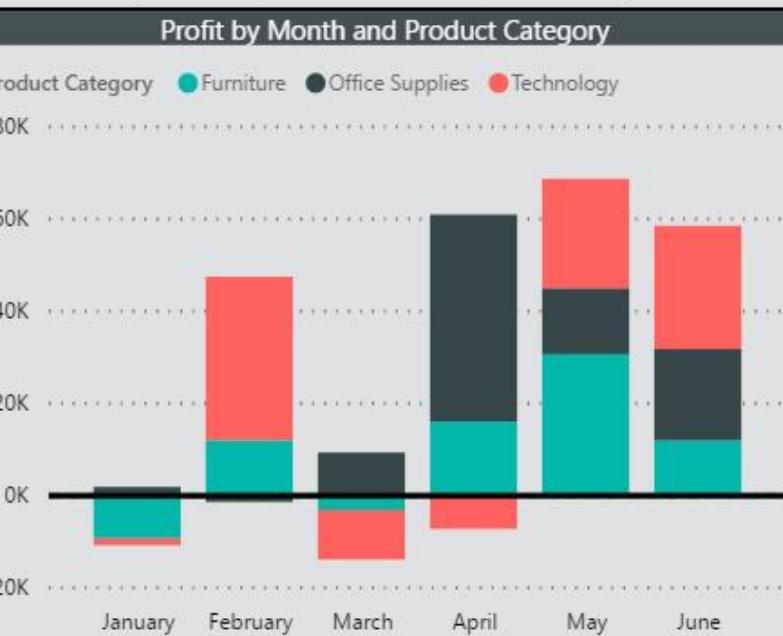
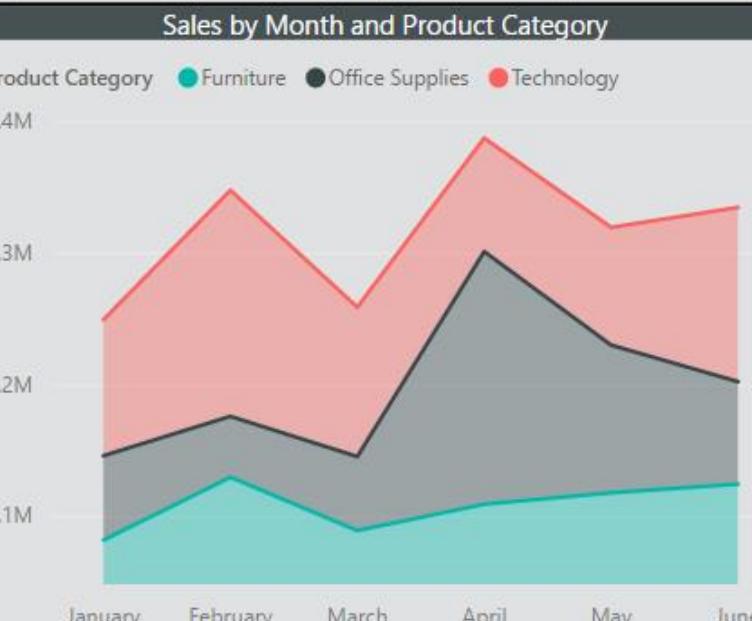
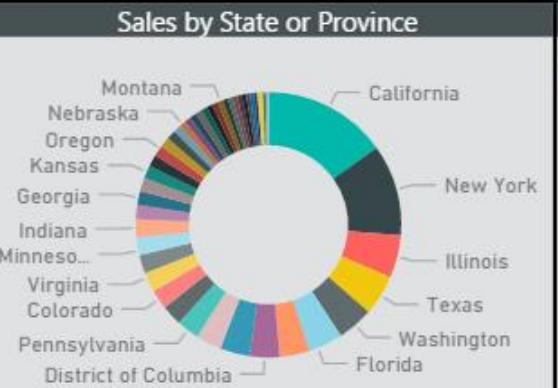
Sales

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. A white mountain bike with red accents is leaning against a rock to his left. The background features a majestic, snow-capped mountain range under a clear, bright blue sky.

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

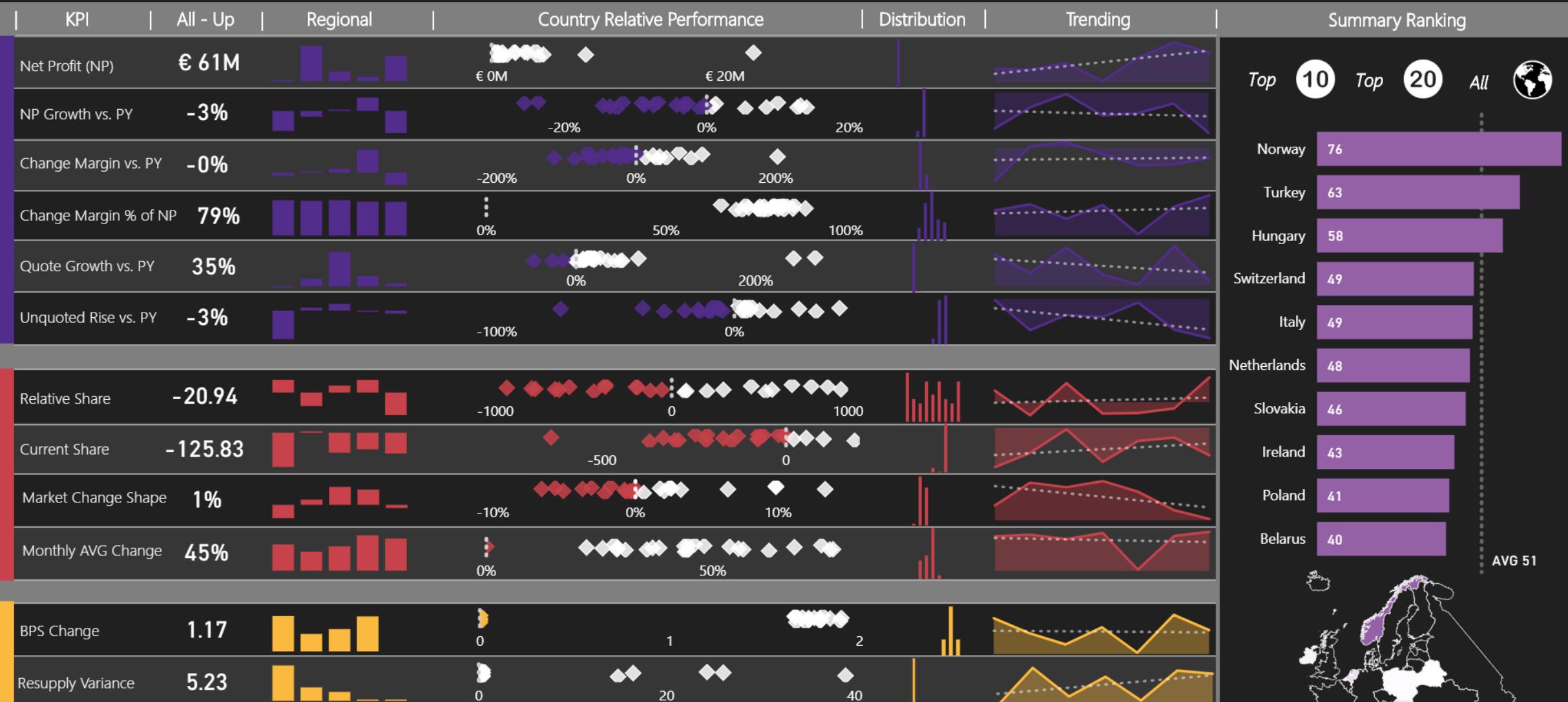
COUNTRY



Select for FAQ

Decisive Data  
insights for decisions

FINANCIAL



SUPPLY

Date

6/1/2017

12/1/2017

Summary Ranking

0

91

NP Growth vs PY

-30%

16%

Quote Growth

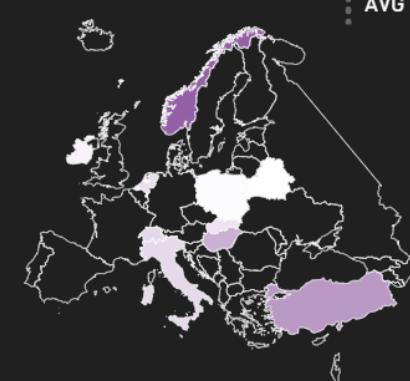
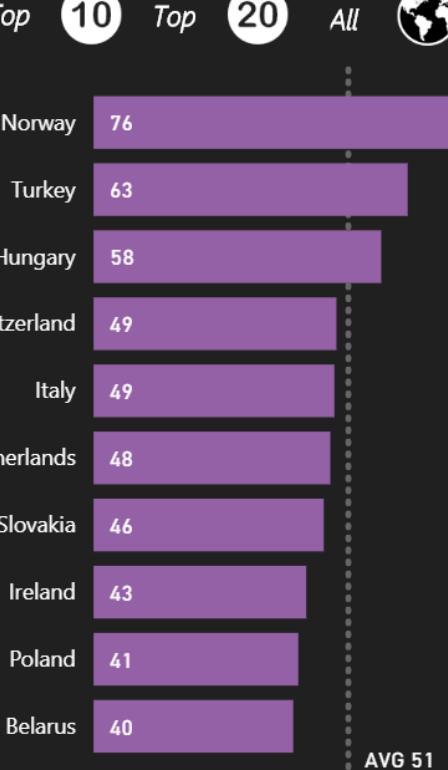
-55%

281%

Market Change Shape

-7%

16%



Filters

# Have a guided experience



## REIMBURSEMENTS BY STATE

**CALLOUT**    **PAGES**

Opiod Crisis Investigation

Media Discussion

Reimbursements by State

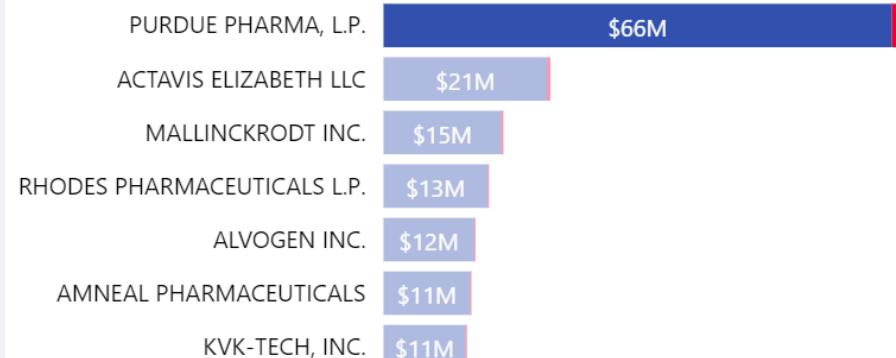
Take Action

Opioid Type

All

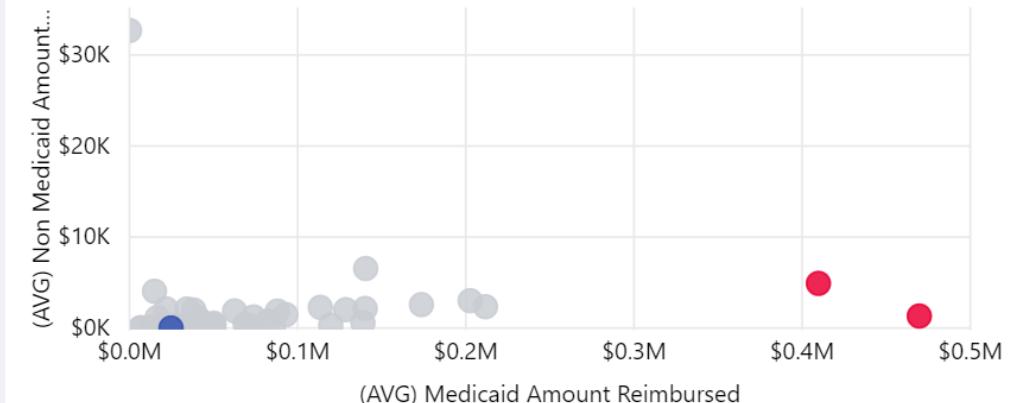
### Medicaid Amount Reimbursed and Non Medicaid Amount Reimbursed by Labeler Name

● Medicaid Amount Reimbursed ● Non Medicaid Amount Reimbursed



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

● Missouri & North Carolina ● Other ● South Carolina



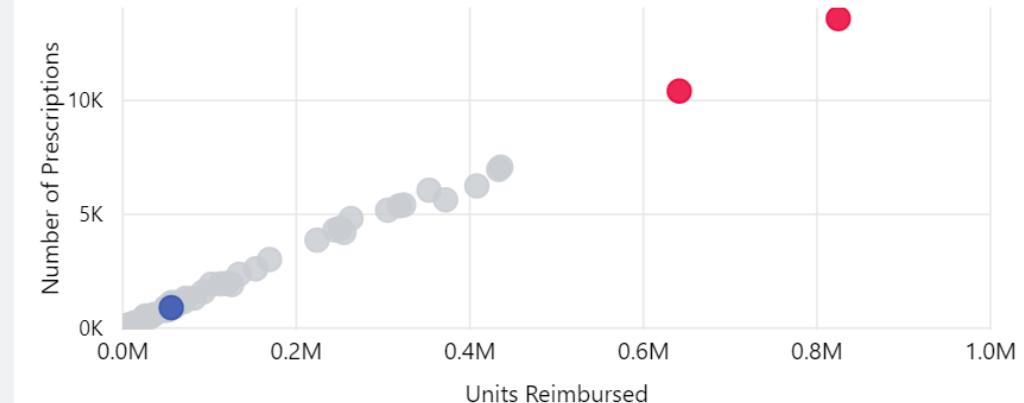
**Missouri and North Carolina** are at the centre of a lawsuit involving mis-marketing of OxyContin. Purdue settled a lawsuit in 2007 with South Carolina.

### 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 Filter 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

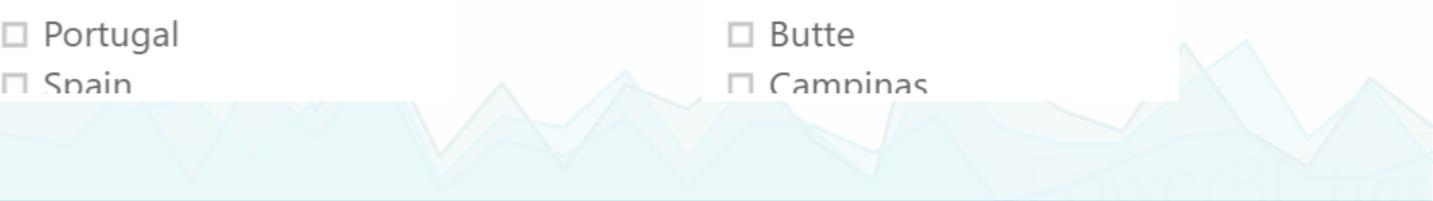
Slicer 3

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

December



KPI 3

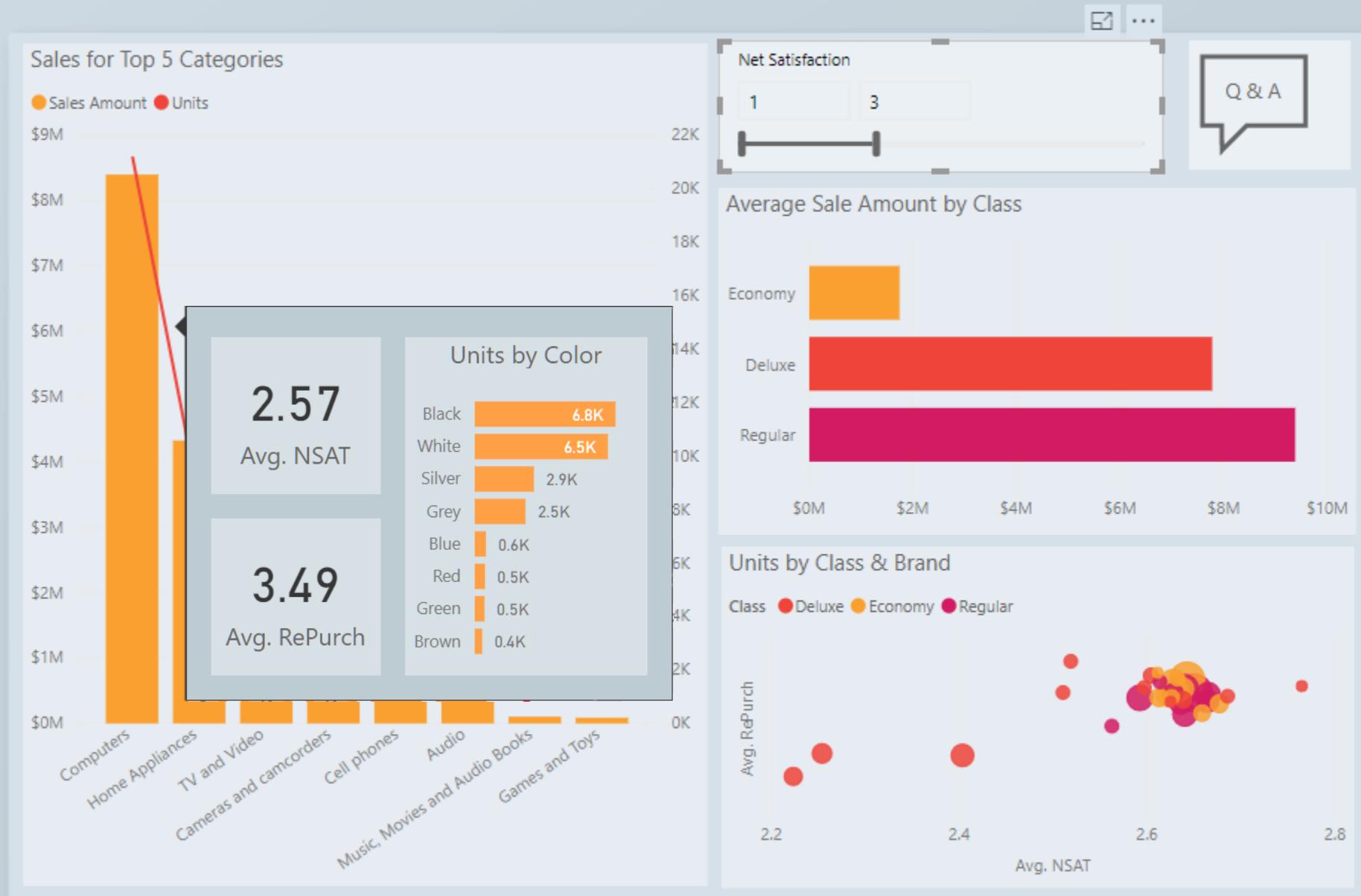




Ensure consistent context



# Progressive disclosure





Let them ask questions

## SUGGESTED QUESTIONS

sales amount for Germany

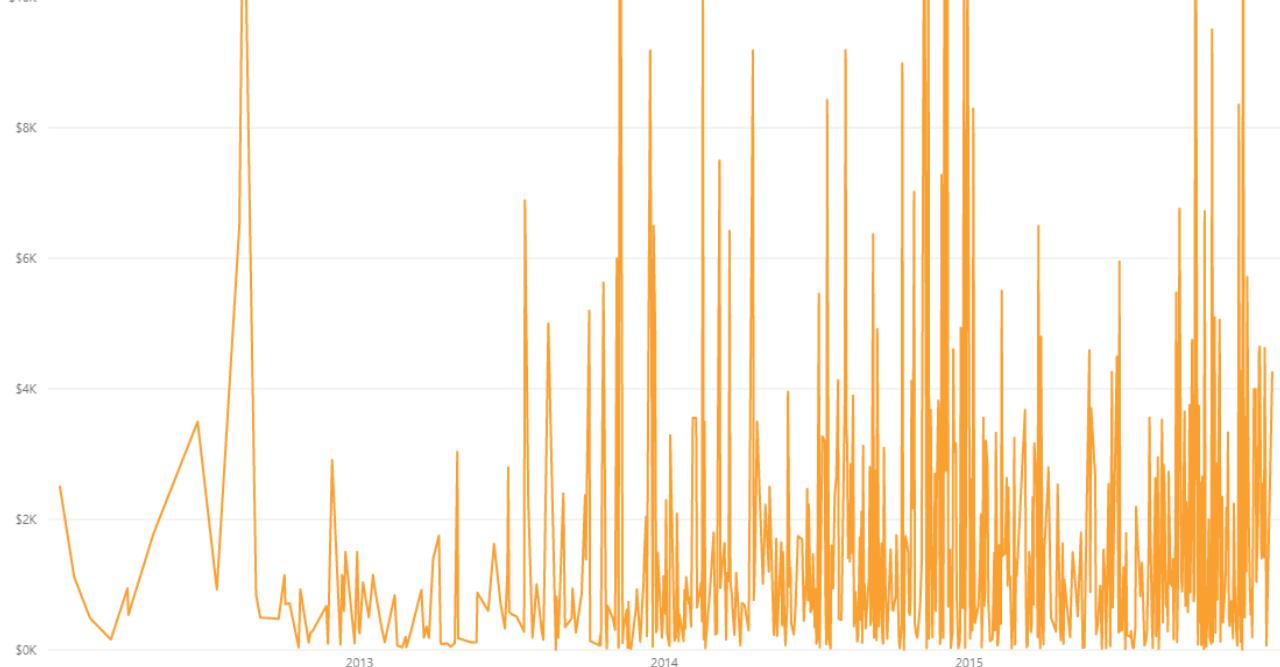
Add



sales amount for Germany by year

- SalesAmount by OrderDate  
\$16K
- 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

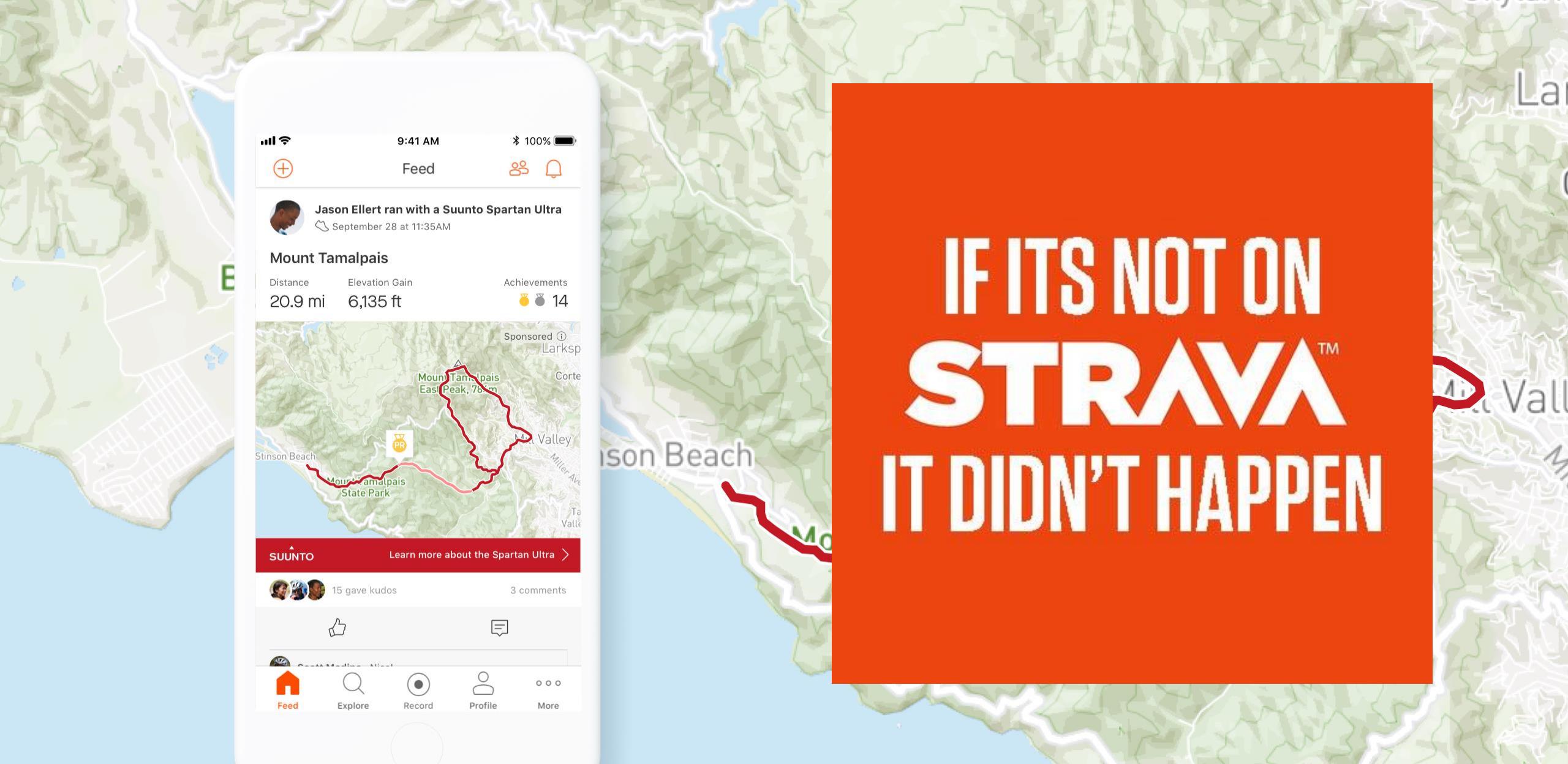


Showing sales amount sorted by order date when Germany sales were ordered

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

Save and close

Cancel



# 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

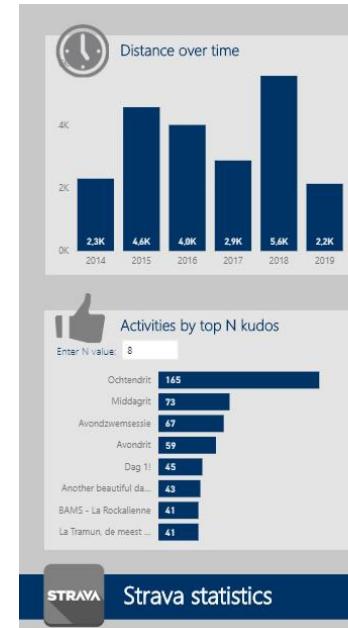
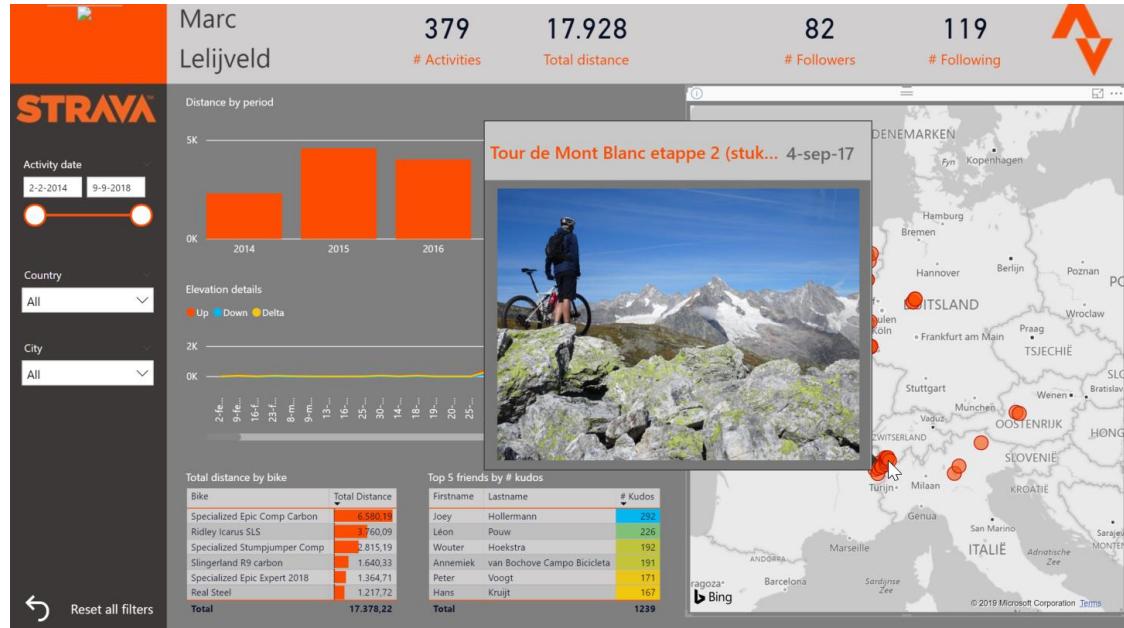
# Demo strava data – part 2

- 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!**

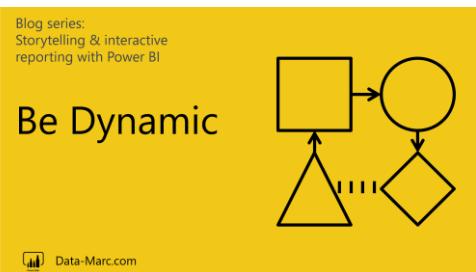
# Data – Marc

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

[Home](#) / [About me](#) / [Shop Power BIer swag!](#) / [Speaking & Events](#) ▾ / [Contact](#)



CATEGORY: STORYTELLING



.com

# Thanks for attending!



**Marc Lelijveld**

Data & Analytics consultant  
Macaw Netherlands



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🌐 [Data-Marc.com](http://Data-Marc.com)

