

# Ask Data

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## Quick poll

### What's your Tableau expertise?

New to Tableau

Casual business user

Analyst

Server admin



People who know the data  
should ask the questions

**I want to know...**

recent income from chairs in california



# Intelligent Query Understanding

Ambiguity resolution and semantic understanding

## QUERY

recent income from chairs in California

## RESULT

sum of Sales  
filter Product Sub-Category to Chairs  
State in California  
Order Date in the last 3 weeks

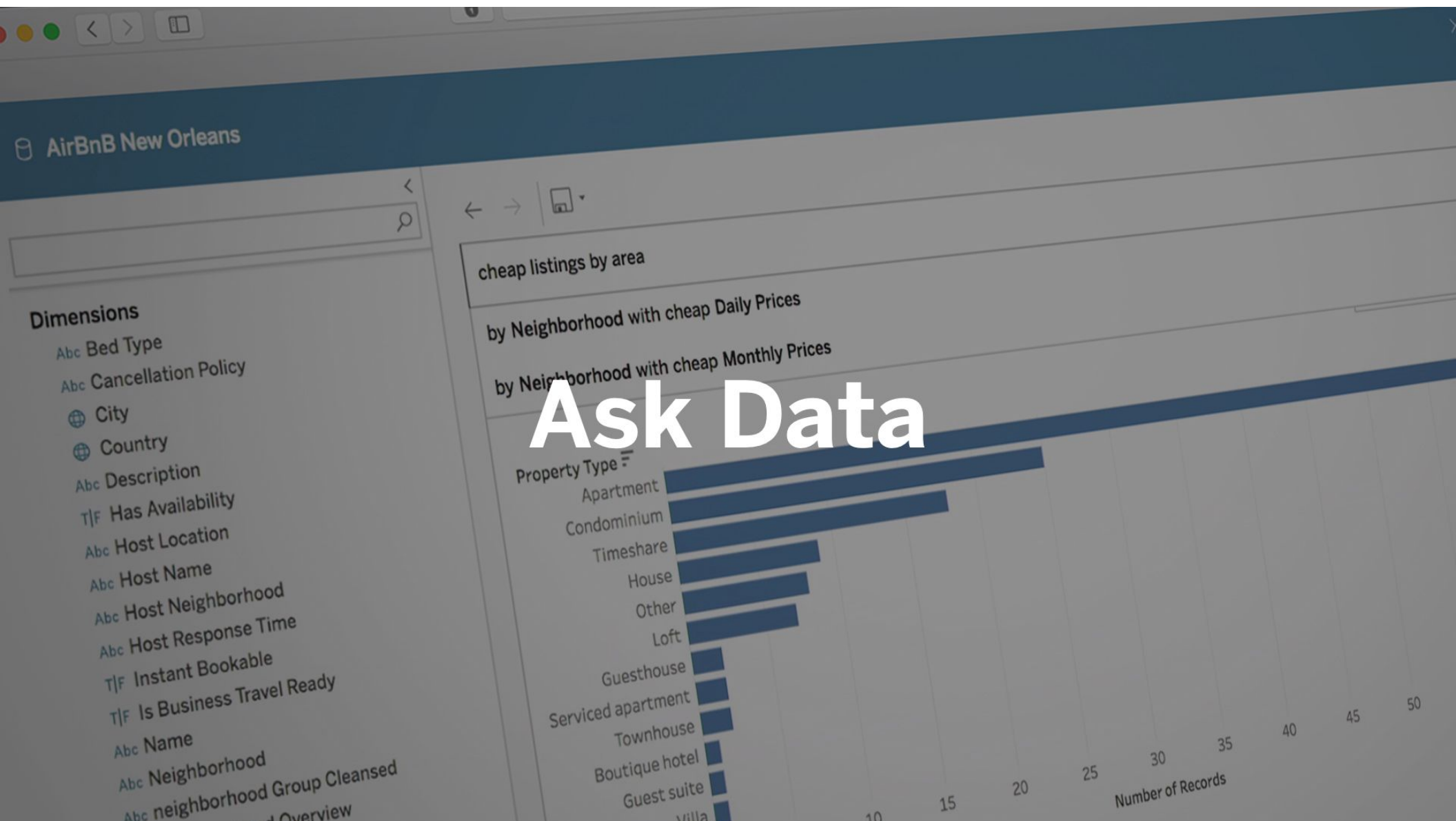
Combine methodologies from linguistic research with statistics and trained data models

Vague  
Predicates

Synonym  
Resolution

Value Indexing

Semantic  
Knowledge



# Ask Data

# **Agenda**

**Getting started with natural language in Tableau**

**Analytics using natural language**

**Intelligent experiences to explore data**

**Best practices**

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**Demo: Easy to get started**



# Enriching Data Model

## Global semantic enrichment

- Geocoding – e.g. countries, states
- Data types – e.g. date, time
- Statistics – e.g. mean, median

# Enriching Data Model

## Add field descriptions

### Transport

Transport of Air, Land, or Sea refer to the point of entry. Land entries include all ports for rail and road.

## Bring your own synonyms

### visitor

/vɪzɪtə/

*noun*

a person visiting someone or somewhere

*synonym*

tourist, guest, noncitizen...

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Q&A

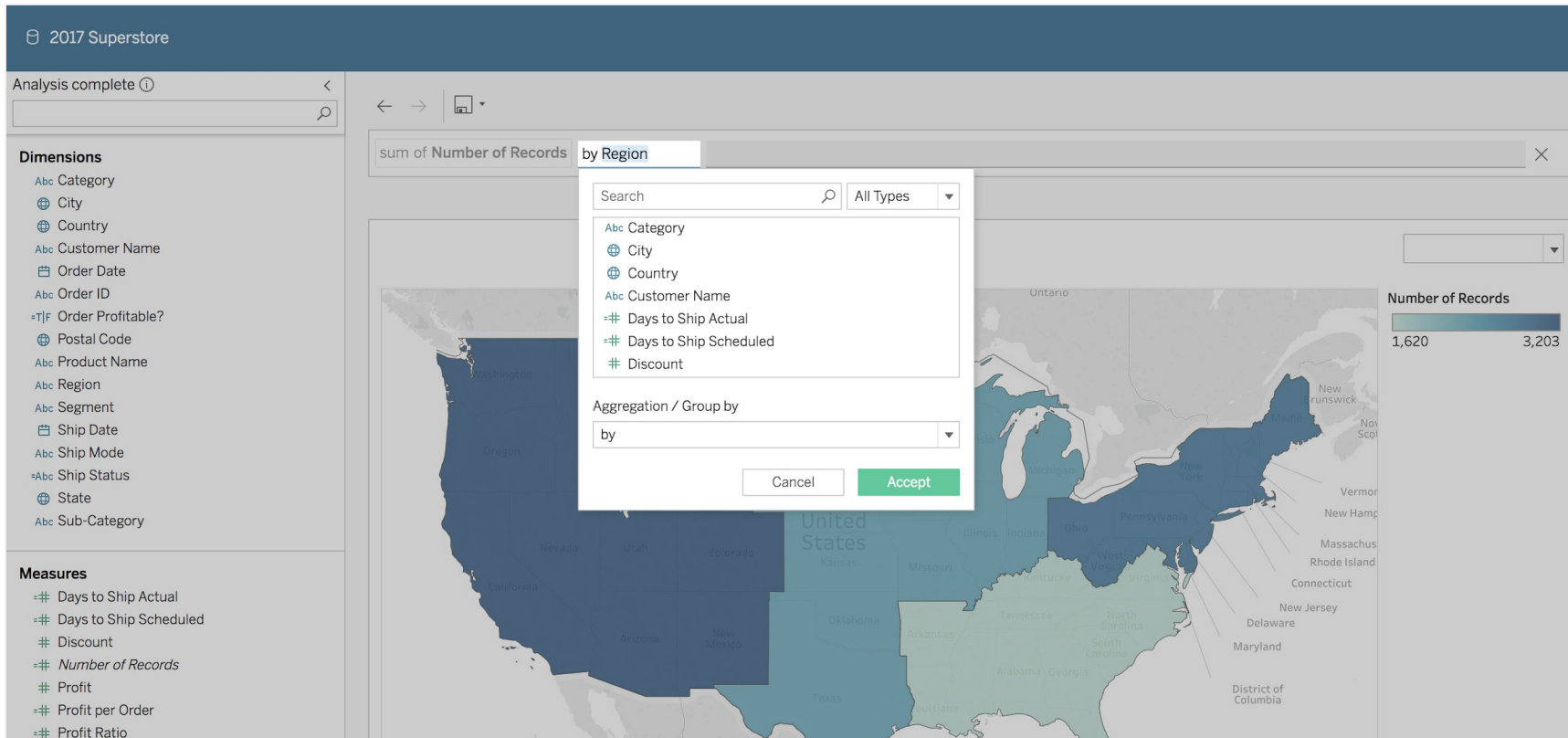
# Analytical Capabilities in Ask Data

<b>Aggregations</b>	<i>“How many vineyards”</i>
<b>Grouping</b>	<i>“How many vineyards <b>by country</b>”</i>
<b>Filtering</b>	<i>“Avg price by country and the <b>price &gt; \$50</b>”</i>
<b>Limits</b>	<i>“<b>Top 50</b> vineyards by avg price”</i>
<b>Sorting</b>	<i>“Top 50 vineyards by avg price <b>sort alphabetically</b>”</i>

## **Demo: Analytical Capabilities**



# Filter Action



# Saving...

The screenshot shows the Tableau Desktop interface for a workbook named 'Singapore 2018'. The main view is a map of the United States, colored by region. The map is titled 'United States' and shows various states. The interface includes a menu bar (File, Data, Worksheet, Dashboard, Analysis, Map, Format, Help), a toolbar, and several panes: Data (2017 Superstore), Dimensions (Customer, Order, Location, Product), Measures (Days to Ship Actual, Days to Ship Scheduled, Discount, Profit, Profit per Order, Profit Ratio, Quantity, Sales, Sales above Target?, Sales Forecast, Sales per Customer, Latitude (generated)), and Parameters (Churn Rate, New Business Growth). The Columns shelf contains 'Longitude (generated)' and the Rows shelf contains 'Latitude (generated)'. A 'Save Workbook' dialog box is overlaid on the map, with fields for Name, Project, and checkboxes for 'Show sheets as tabs' and 'Embed password for data source'. The dialog has 'Cancel' and 'Save' buttons.

# ...and Web Authoring



# Agenda

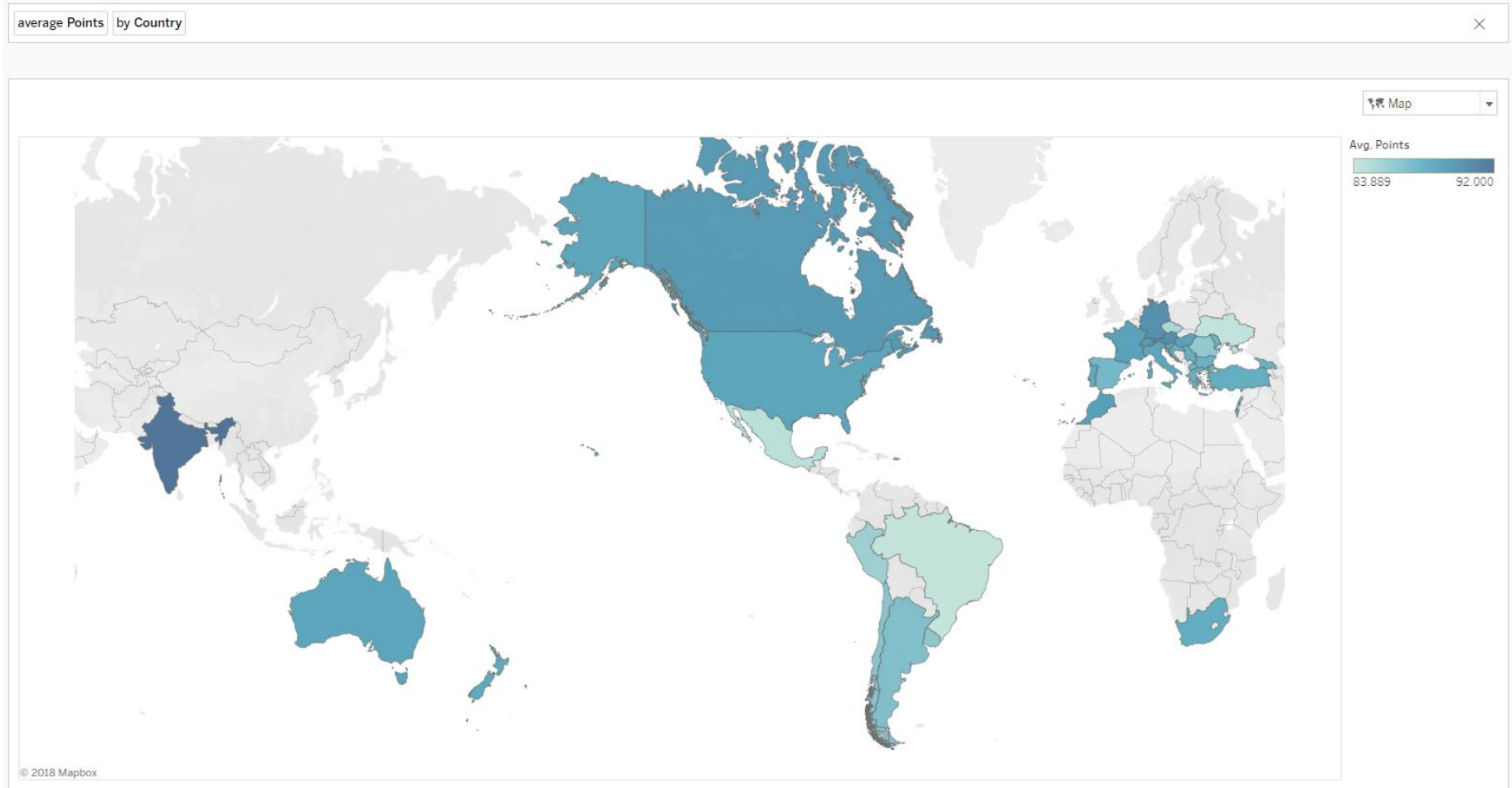
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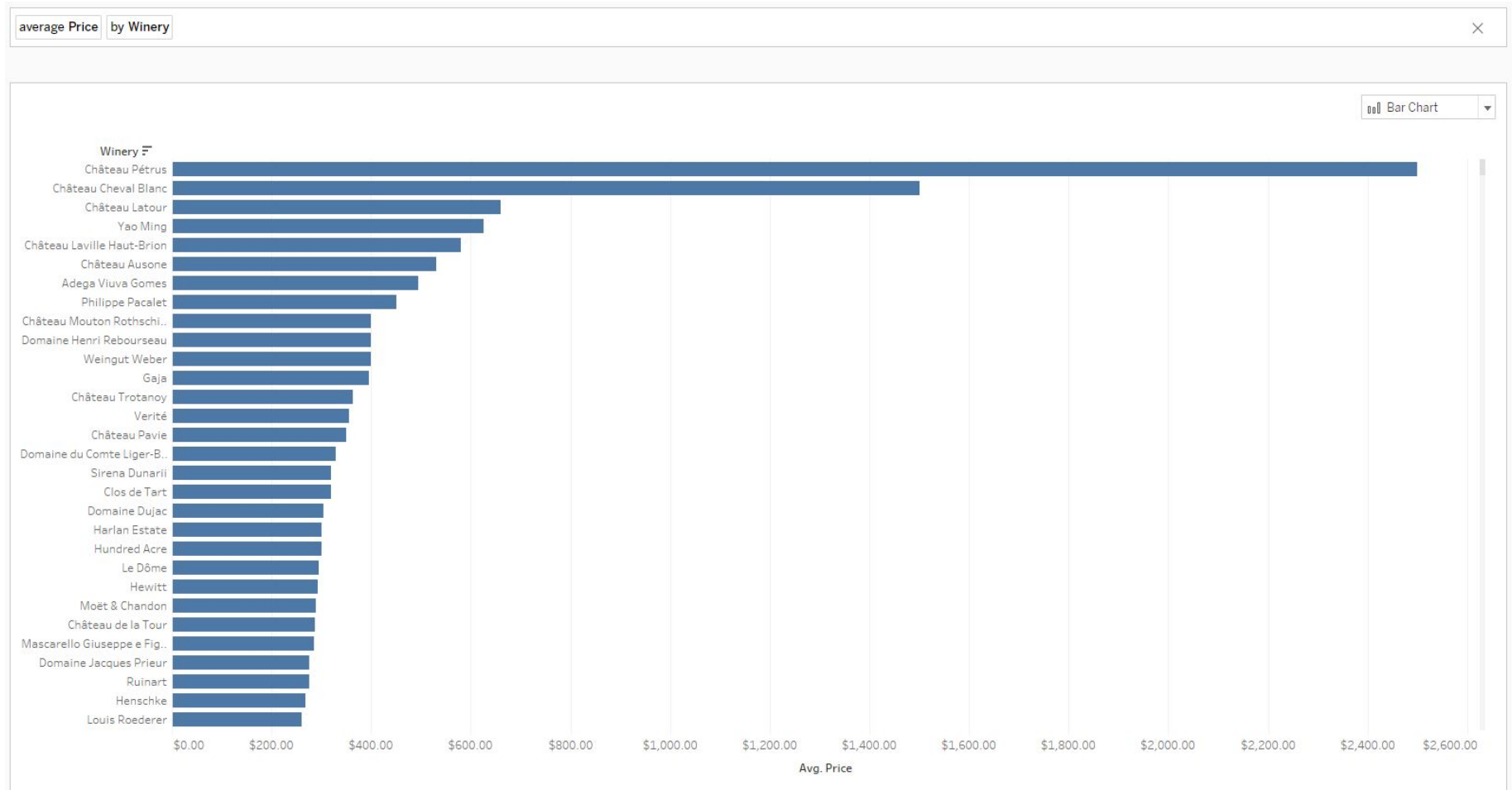
**Intelligent experiences to explore data**

Best practices

# Smart Visualization Selection



# Default Sort Order



# Misspelling

Ask a question about wines

avg priec vareety

average Price by Variety



# Indexed Values

Ask a question about wines

california|

**County** in California

**Province** in California

# Underspecified Questions

Ask a question about wines

wine prices over time

sum of Price by Variety and by Vintage's year

by Vintage's year, top Variety by sum of Price

# Advanced Concepts

Ask a question about wines

What is the most expensive variety|

top Variety by most expensive Price

most expensive Price by Variety

Ask a question about wines

Who is the most popular taster

sort Taster Name in descending order by sum of Number of Records

sort Taster Twitter Handle in descending order by sum of Number of Records

# Agenda

Smart Analytics Journey

Getting started with natural language in Tableau

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**Best practices**



# Best Practices

## Anticipate types of questions

- Data shaping and joining
- Create calculated fields

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## Field properties

- Use unique and meaningful names
- Set data type, default aggregation and default format
- Add synonyms and field aliases

# Available in 2019.1 Beta

## Platforms



Tableau Server



Tableau Online

## Licenses

- Creators
- Explorers
- Interactors

## Summary

- **Easy** to use
- **Powerful** analytical capabilities
- **Smart** interpretations and experience

**Ask Data in 2019.1 Beta!**

A black and white photograph of a large crowd of people at an event, many of whom are clapping. The image is overlaid with a semi-transparent dark filter. In the center, the text "Thank you!" is written in a white, sans-serif font. Several individuals in the foreground are wearing lanyards with "EVASOL" printed on them. One man on the left has a name tag that says "Martha Emily" and another that says "et m... et" and "ch... (2017)".

Thank you!