

# Data Storytelling: A Better Way to Engage Decision Makers With Data

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# Decision Makers Prioritizing Gut Feeling Over Data

**61%**

**Cherry-Picking  
Data Points  
to Decide**

**64%**

**Blame Data  
Quality**

**66%**

**Lack Data  
Literacy Skills**

**45%**

**Improving  
Data and  
Analytics  
(D&A) Fact  
Base**

# Key Issues

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2. What are the two types of data stories and how are they used?
3. What creates the most compelling data stories?

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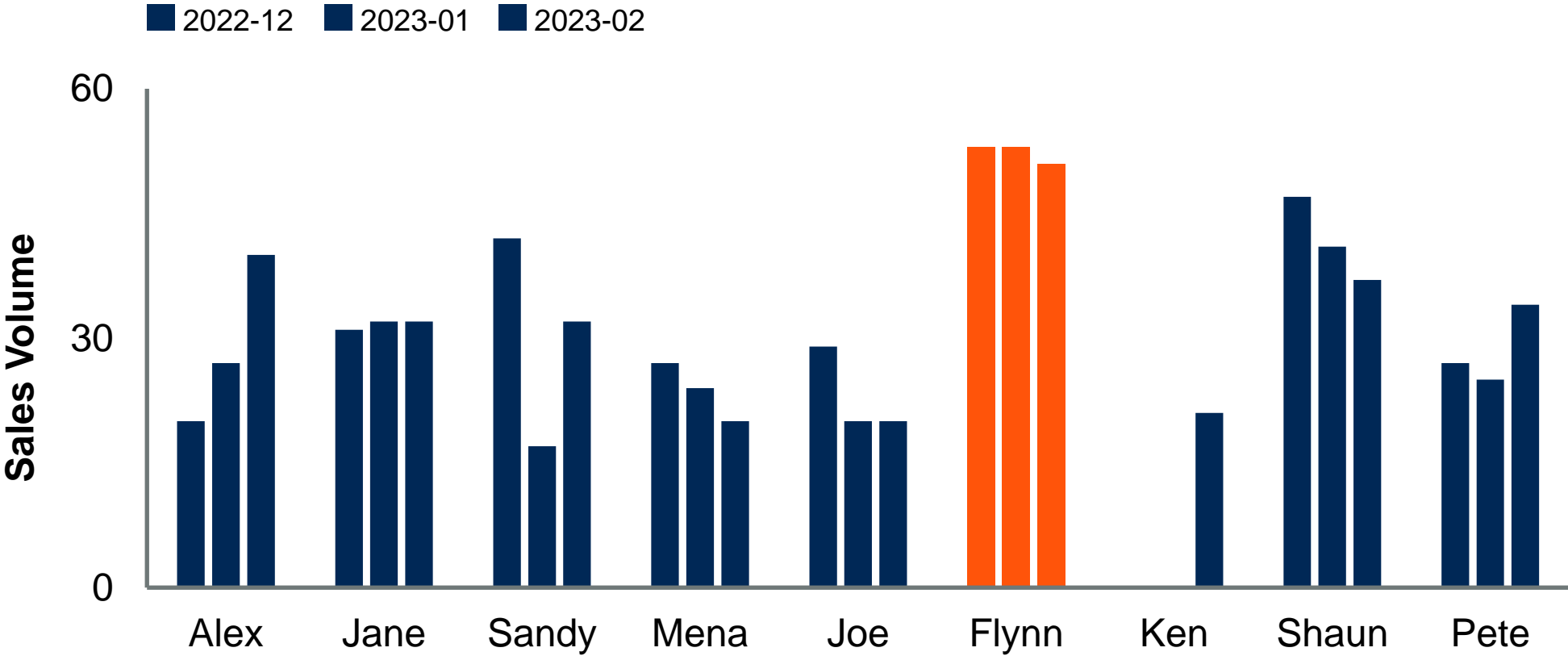
# Example — Even Simple Datasets Are Hard to Read

Suppose you manage a sales team and want to show the volume of units sold over the past three months

Sales by REP	2022-12	2023-01	2023-02	4Q23
Alex	20	27	40	87
Jane	31	32	32	95
Sandy	42	17	32	91
Mena	27	24	20	71
Joe	29	20	20	69
Flynn	53	53	51	157
Ken			21	21
Shaun	47	41	37	125
Pete	27	25	34	86
Grand Total	323	356	314	993

Source: MySYS Sales Reporting Extract

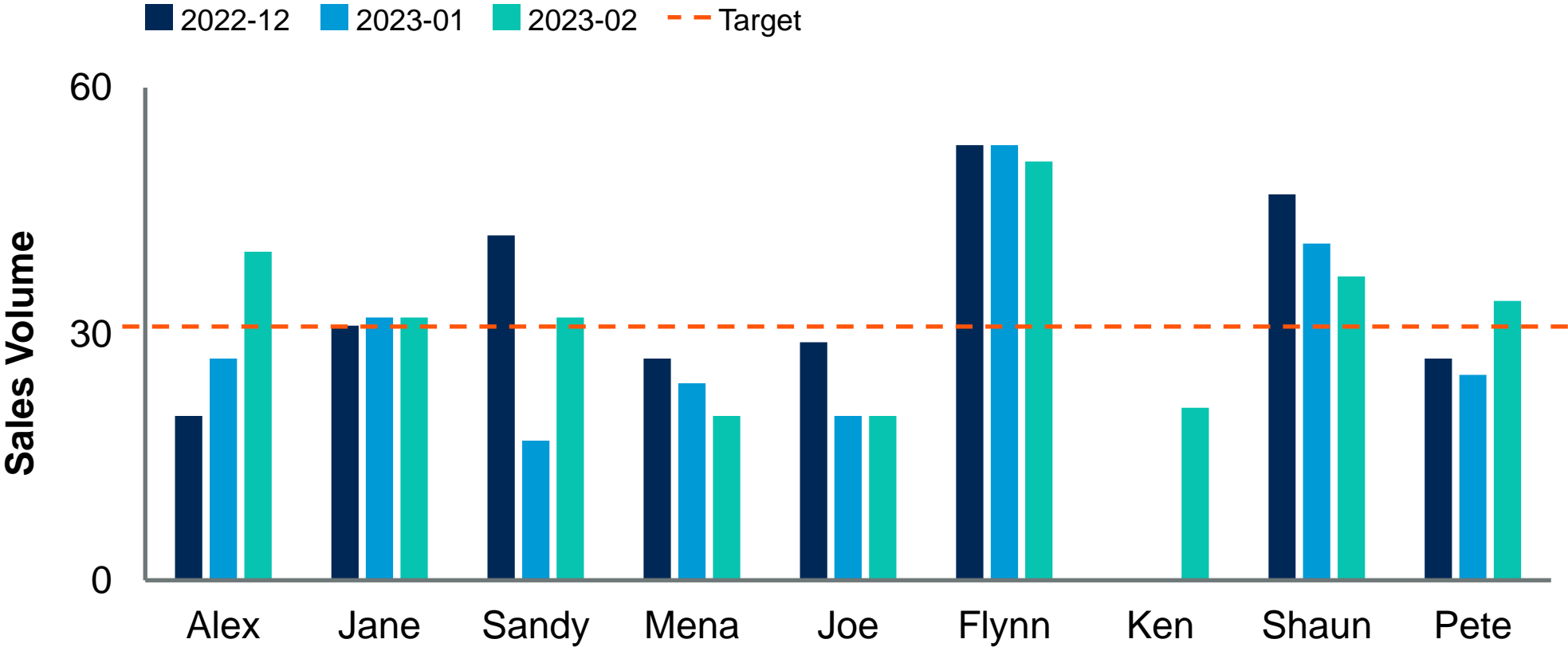
# Example — Add Label, Color and Target



Source: MySYS Sales Reporting Extract



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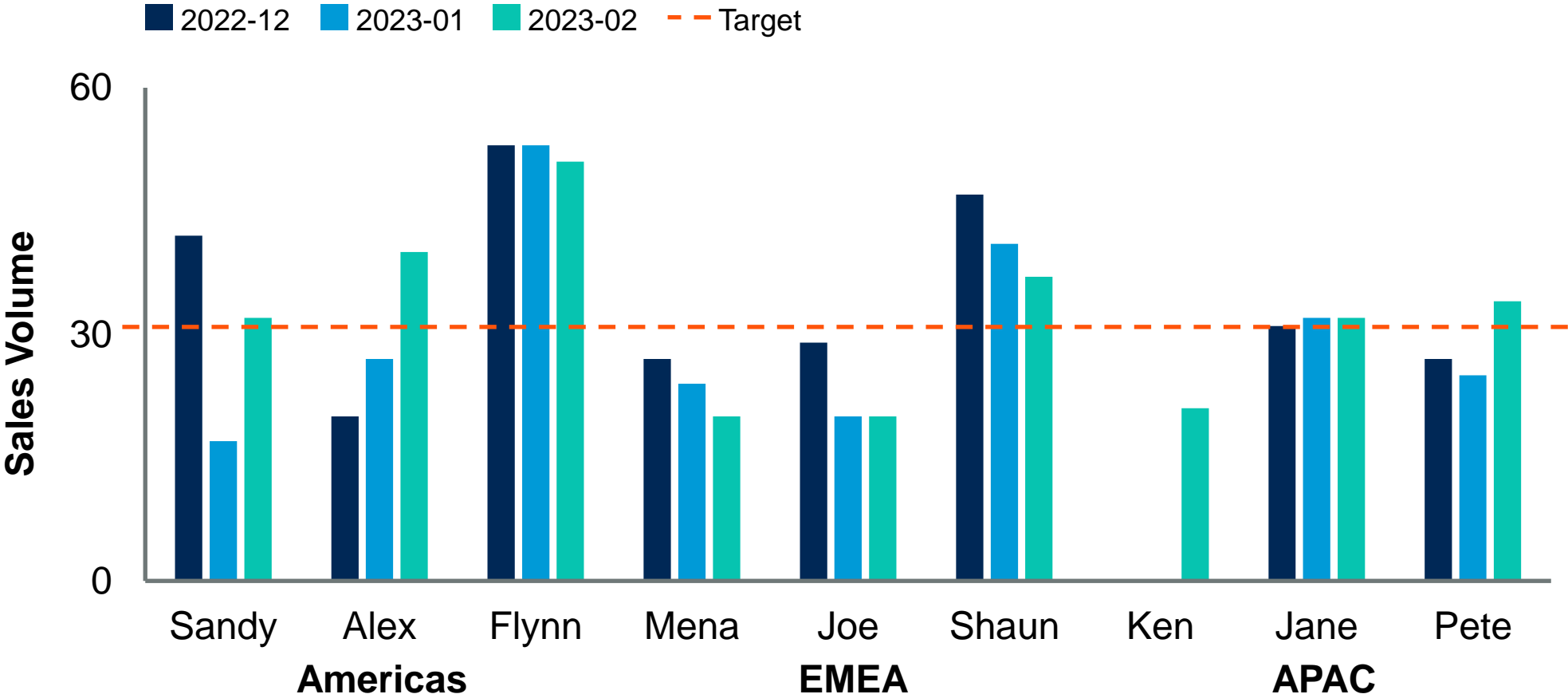
The First Question:

**“What Are We Looking At?”**

No Visualization Goes Undescribed.

# Example — Provide Narration

**Sales performance for trailing three months:** Continues to show difficult conditions relative to competition. Alpha released a new competitor in October in **EMEA** where Shaun, Mena and Joe are located. Still hiring for sales manager in **APAC**.



Source: MySYS Sales Reporting Extract

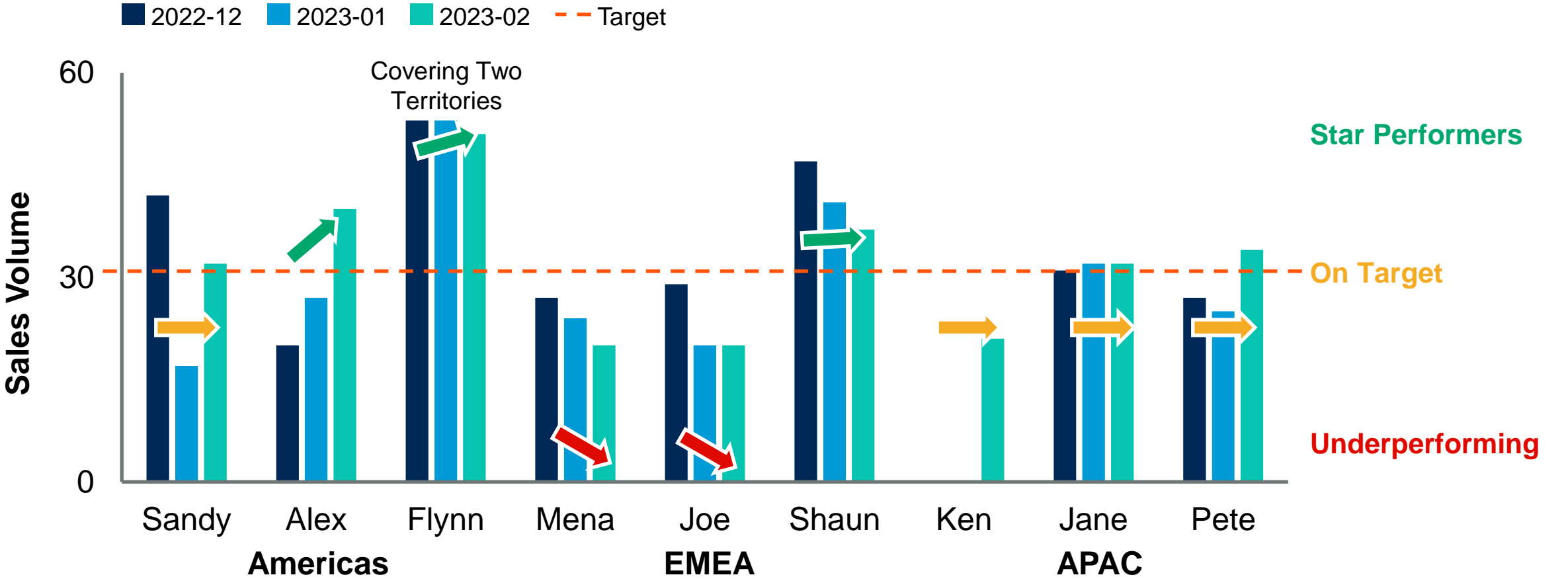
The Next Question:

**“Why Is This Happening?”**

The Data Alone Is Not Enough to Tell the Story.

# Adding Context Beyond the Dataset Broadens the Story

**Why have we not hit sales quota (last three months)?** Difficult conditions relative to competition. Alpha released a new competitor in October in EMEA where Shaun, Mena and Joe are located. Still hiring for sales manager in APAC.



Source: MySYS Sales Reporting Extract

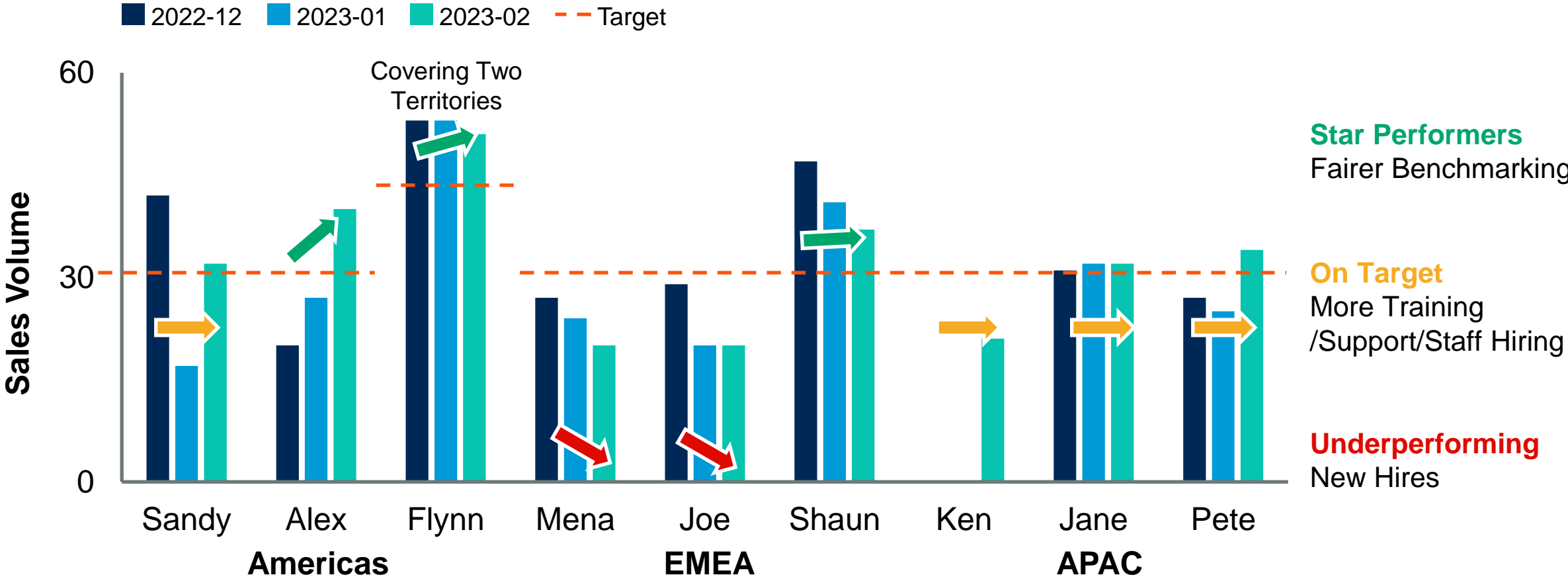
The Next Question:

**“What Are We Going to Do?”**

The Data Story Must Lead to Insight and Action.

# Adding Guidance for the Decision Makers

**Why have we not hit sales quota (last three months)?** Difficult conditions relative to competition. Alpha released a new competitor in October in EMEA where Shaun, Mena and Joe are located. Still hiring for sales manager in APAC.



Source: MySYS Sales Reporting Extract



# Data Storytelling — Worldwide Interest Over Time

Relative Search Interest of the Term “Data Storytelling”



Source: [Data Storytelling](#), Google

**By 2025, data stories will be the most widespread way of consuming analytics.**

**75% of stories will be automatically generated using augmented analytics techniques.**

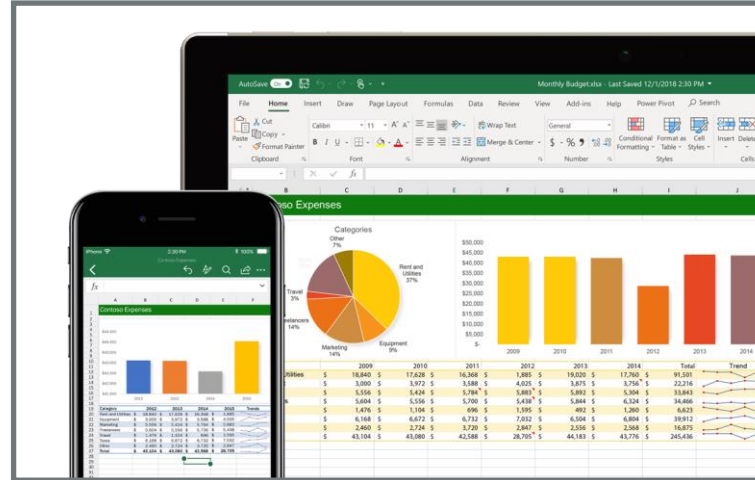
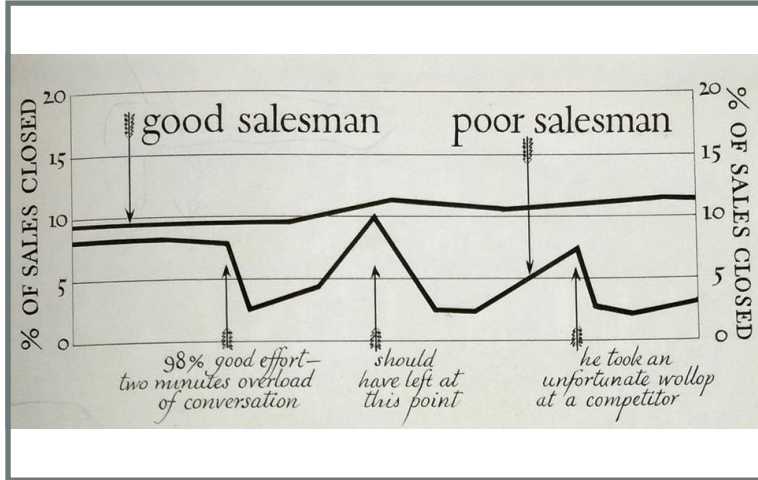
# Key Issues

1. What is a data story?

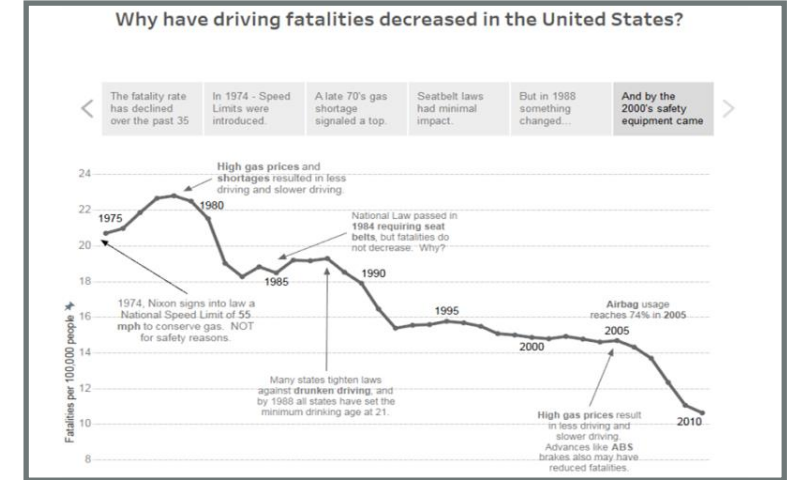
**2. What are the two types of data stories and how are they used?**

3. What creates the most compelling data stories?

# Data Storytelling Is Not New, But It Is Different



Source: Microsoft



Source: Tableau Software

## Journals

- Ledgers and notebooks
- Mostly numbers and tables, occasional visualizations, all hand-drawn
- Insight for management

## Spreadsheets

- Mostly dashboards and enterprise reporting
- Mostly numbers and tables, occasional visualizations
- Insight for analysts

## Data Stories

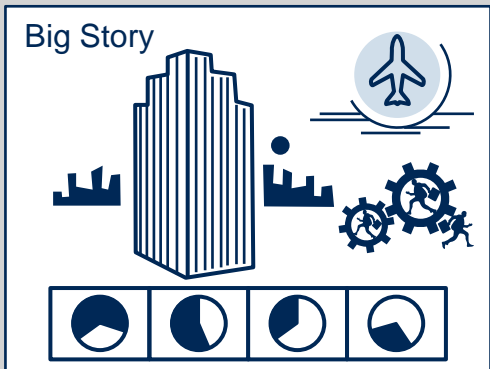
- Augmented analytics
- Mostly visualizations, occasional numbers and tables
- Available everywhere
- Insight for everyone

# Type 1: Journalistic Data Stories

**Visual narratives to be passively or interactively consumed for informational purposes, usually published.**

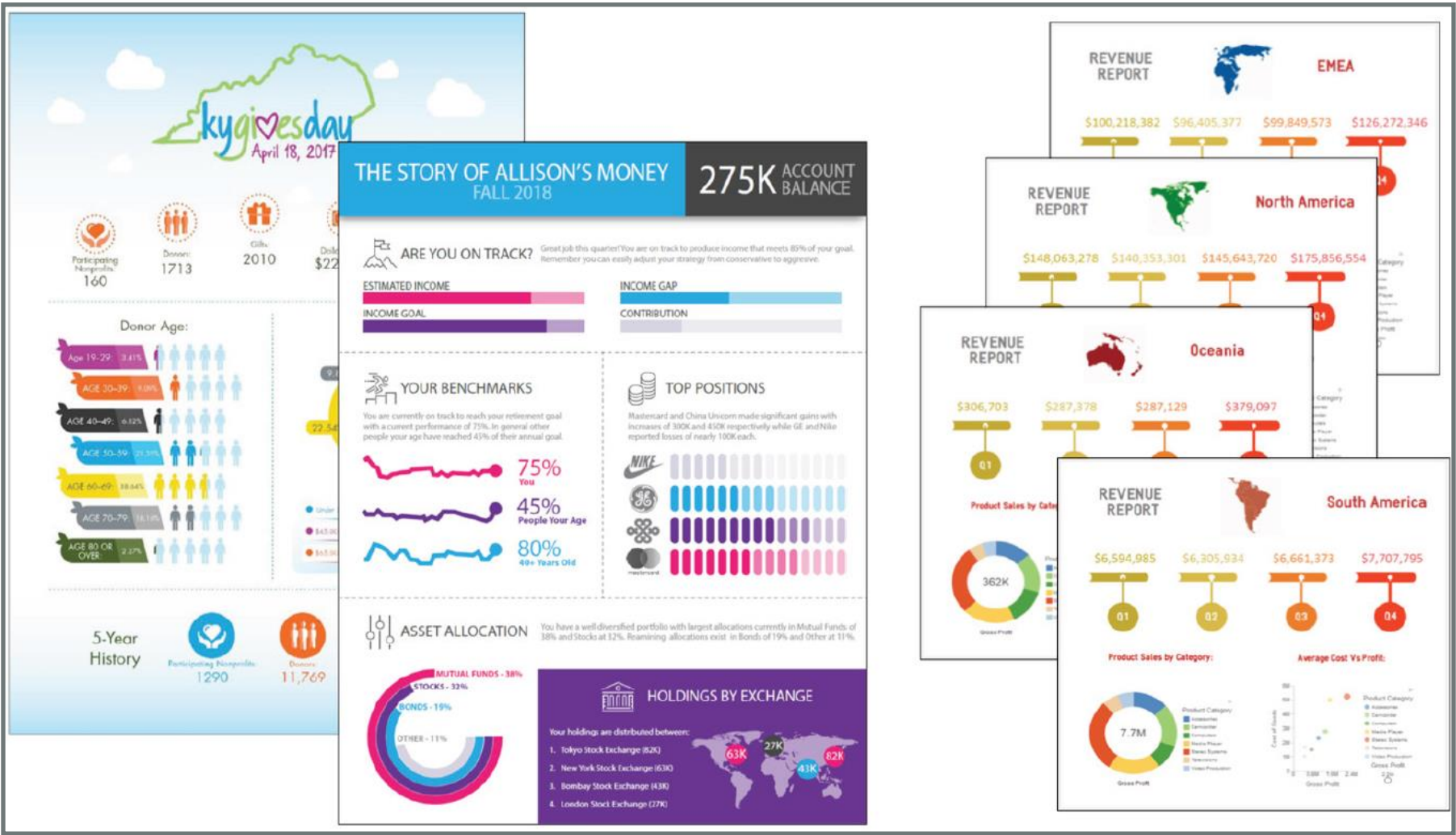
# Journalistic Data Storytelling

## Infographic



Form	Infographic
Purpose	Journalistic
Typical Data Content	Any; Often regulatory, promotional
Audience	Often external
Creator	Designer
When	Scheduled publication
Visual Content	Polished image, often using a visual metaphor and mixed media (including video)
Narrative Content	Narration is minimal, recorded or embedded in graphic form

# Example: A Replacement for Traditional Reports?



Source: TIBCO Software

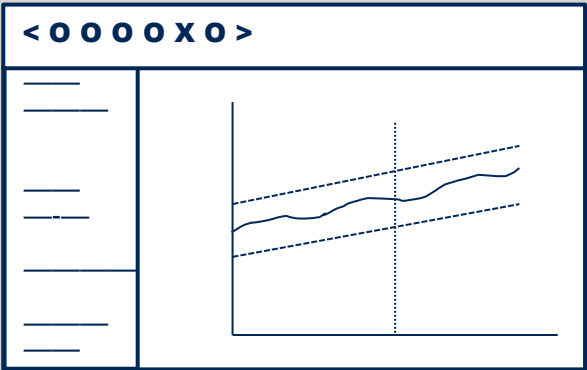
## **Type 2: Analytic Data Stories**

**A working narrative to be actively explored and collectively questioned to aid in decision making, usually presented.**



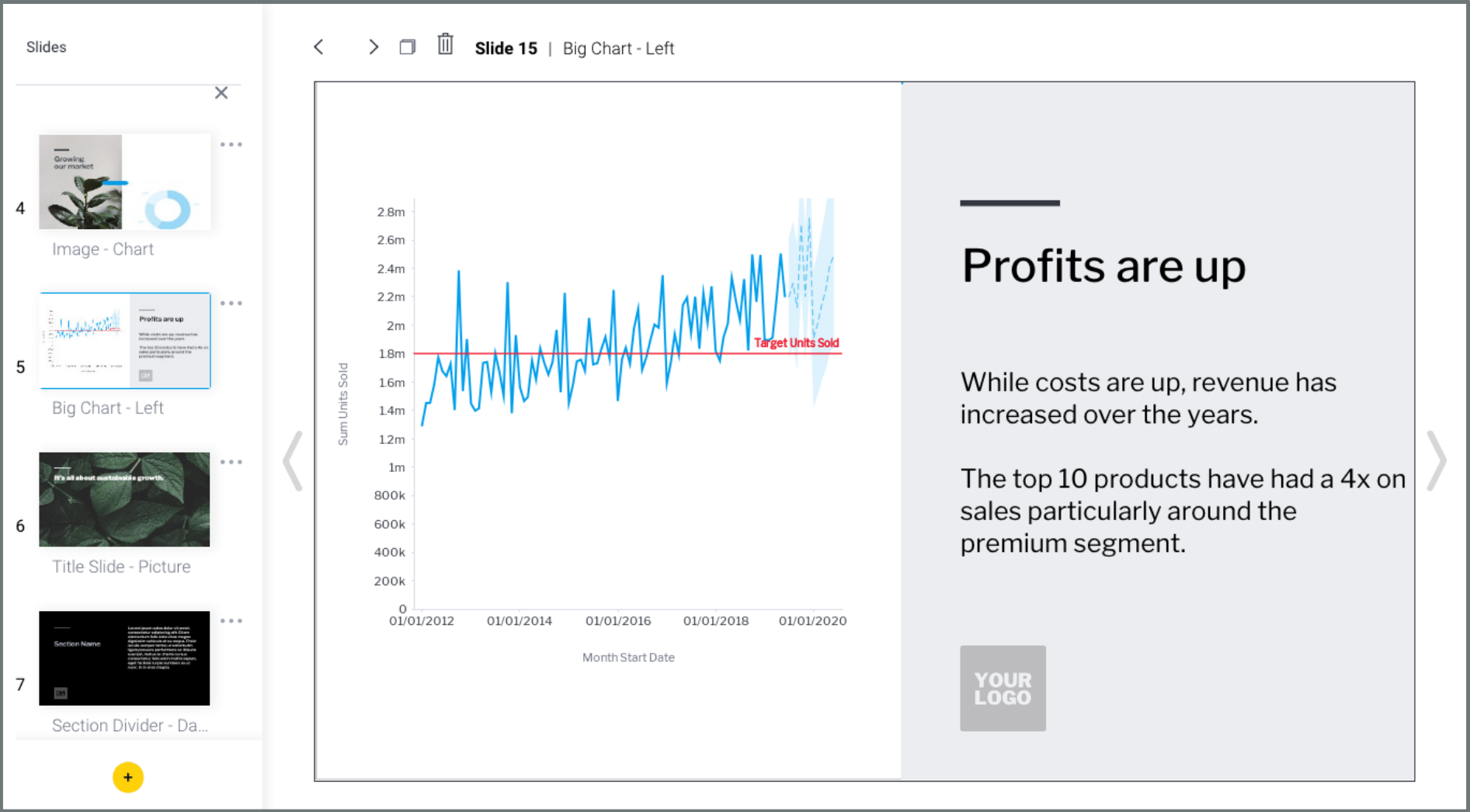
# Analytic Data Storytelling

Connected Slide Show



Form	Connected Slide Show
Purpose	Analytic
Typical Data Content	Tactical or strategic
Audience	Senior management
Creator	Analyst
When	Triggered by findings
Visual Content	Slide model — series of charts, some using richer forms, with text highlights
Narrative Content	Spoken (live or recorded), with interaction from the audience

# Example: Connected Slideshow



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# How Do We Know If a Story Is Important Enough to Tell?

**B**

**E**

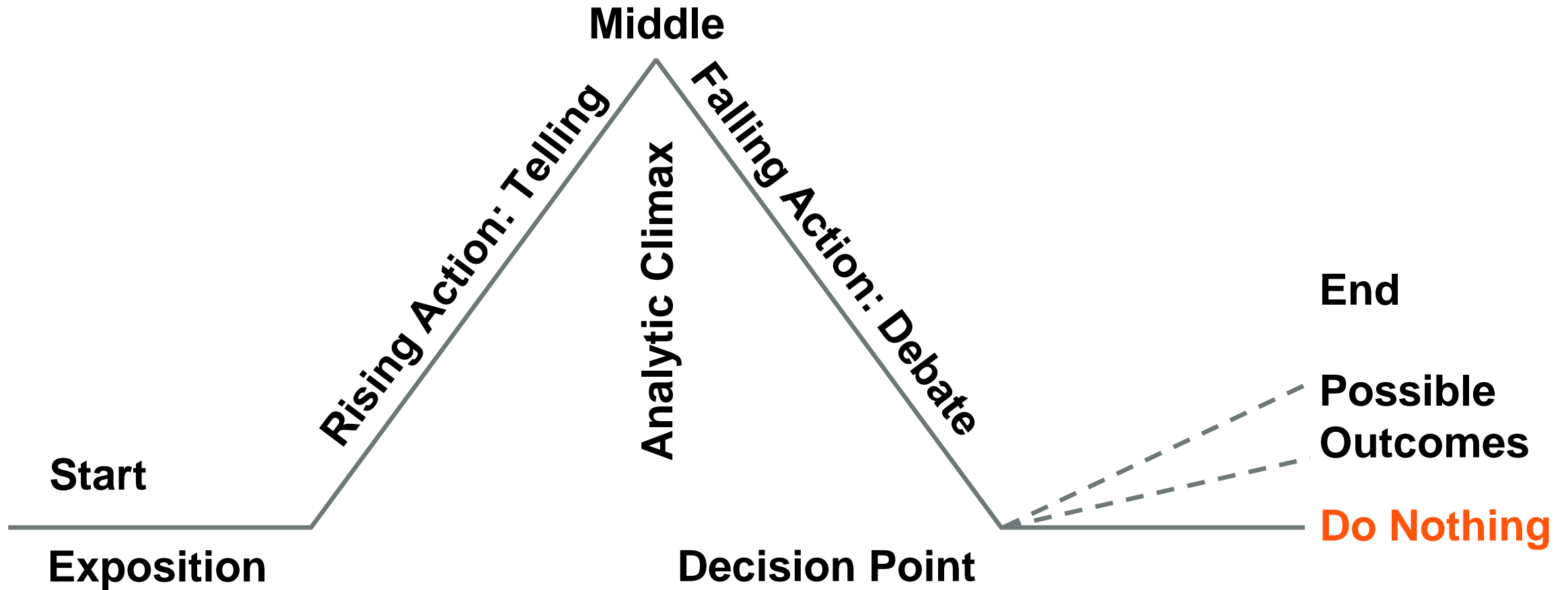
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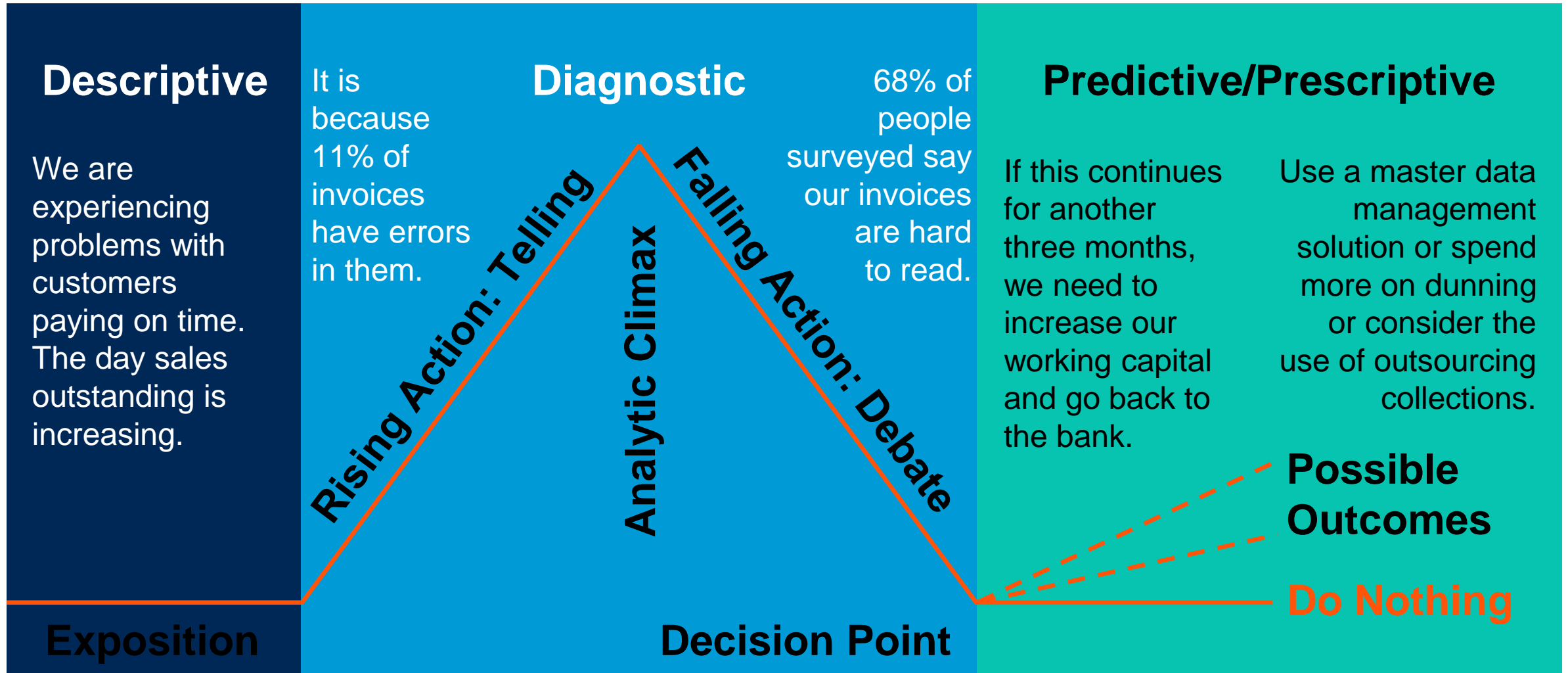
# Prioritize Which Data Stories to Tell First

Insight	B e n e f i c i a l	E x e c u t a b l e	S u b s t a n t i a l	T e l l i n g
12% of customers who complain churn more often than those that don't	✓	✓	✓	✗
The most common products in seven of the past 10 months are bought by 87% of customers	✗	✓	✗	✗
New products account for 8% of total sales	✗	✗	✓	✓

# Analytic Data Stories Have a Plotline

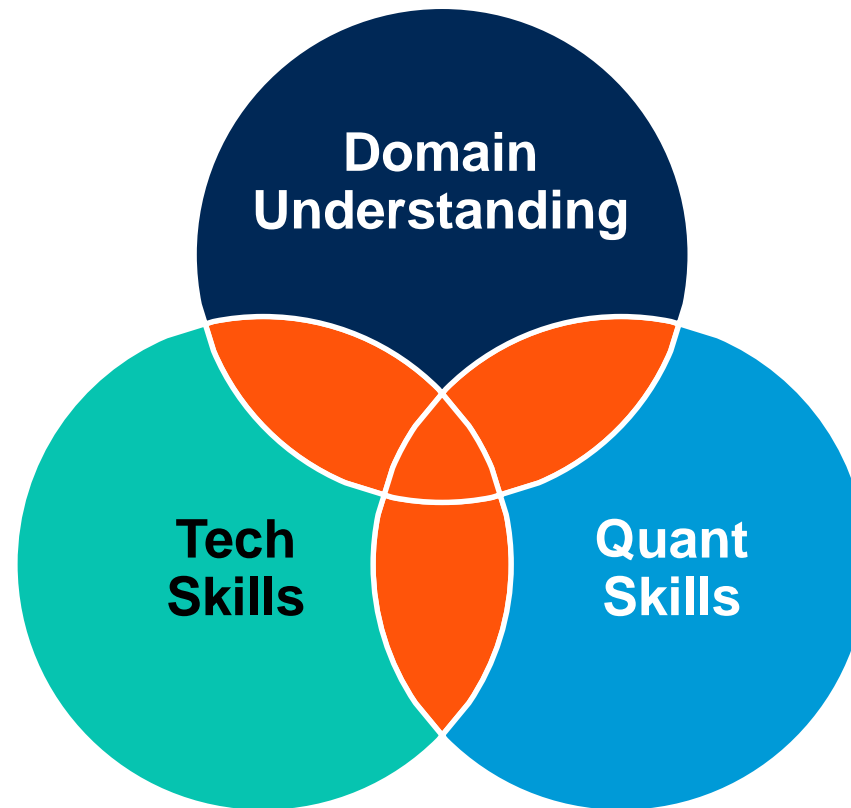


# Analytic Data Stories Have a Plotline



# Is Data Storytelling Scalable With Organizations?

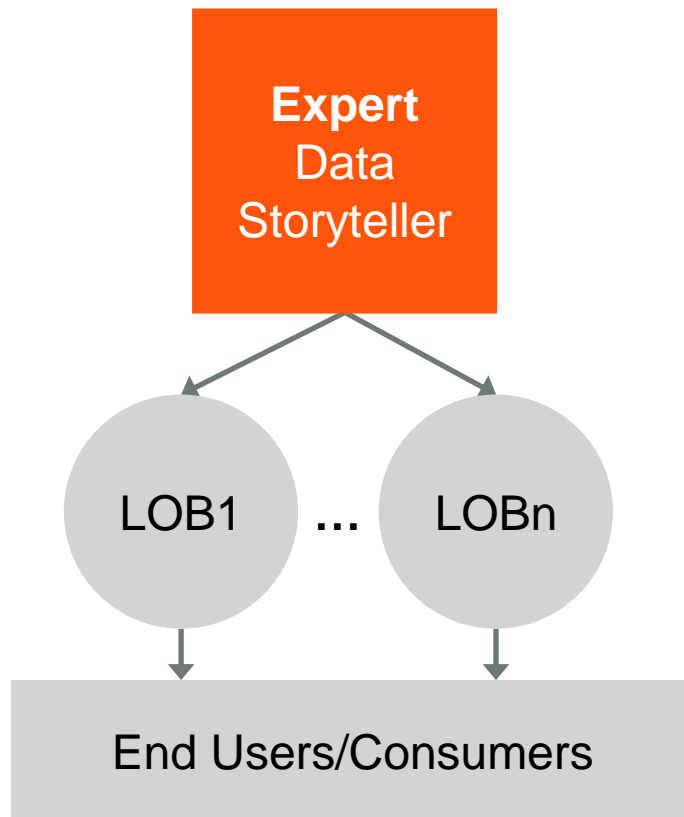
**Multidisciplinary Skills**



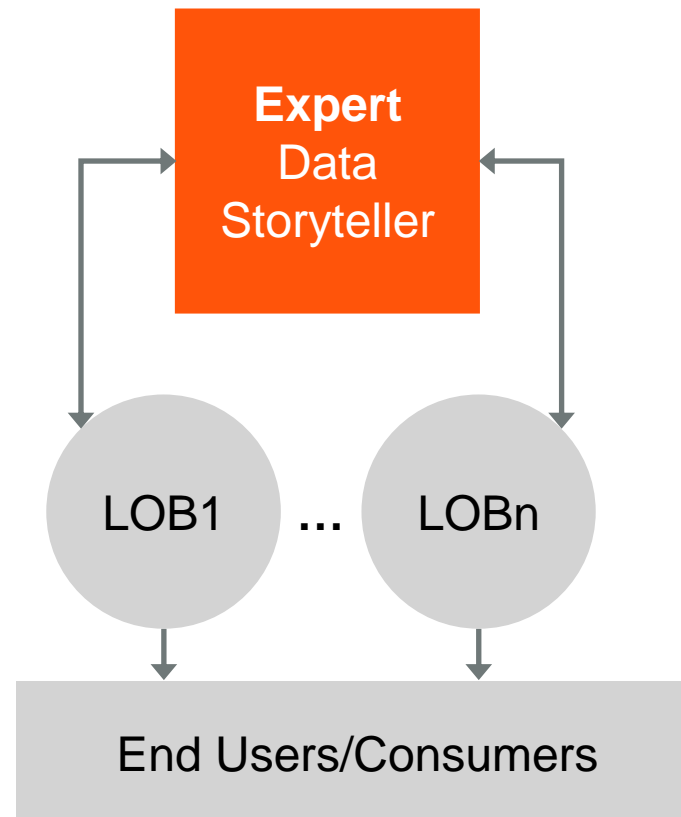


# Is Data Storytelling Scalable With Organizations?

## Producer — Consumer Model



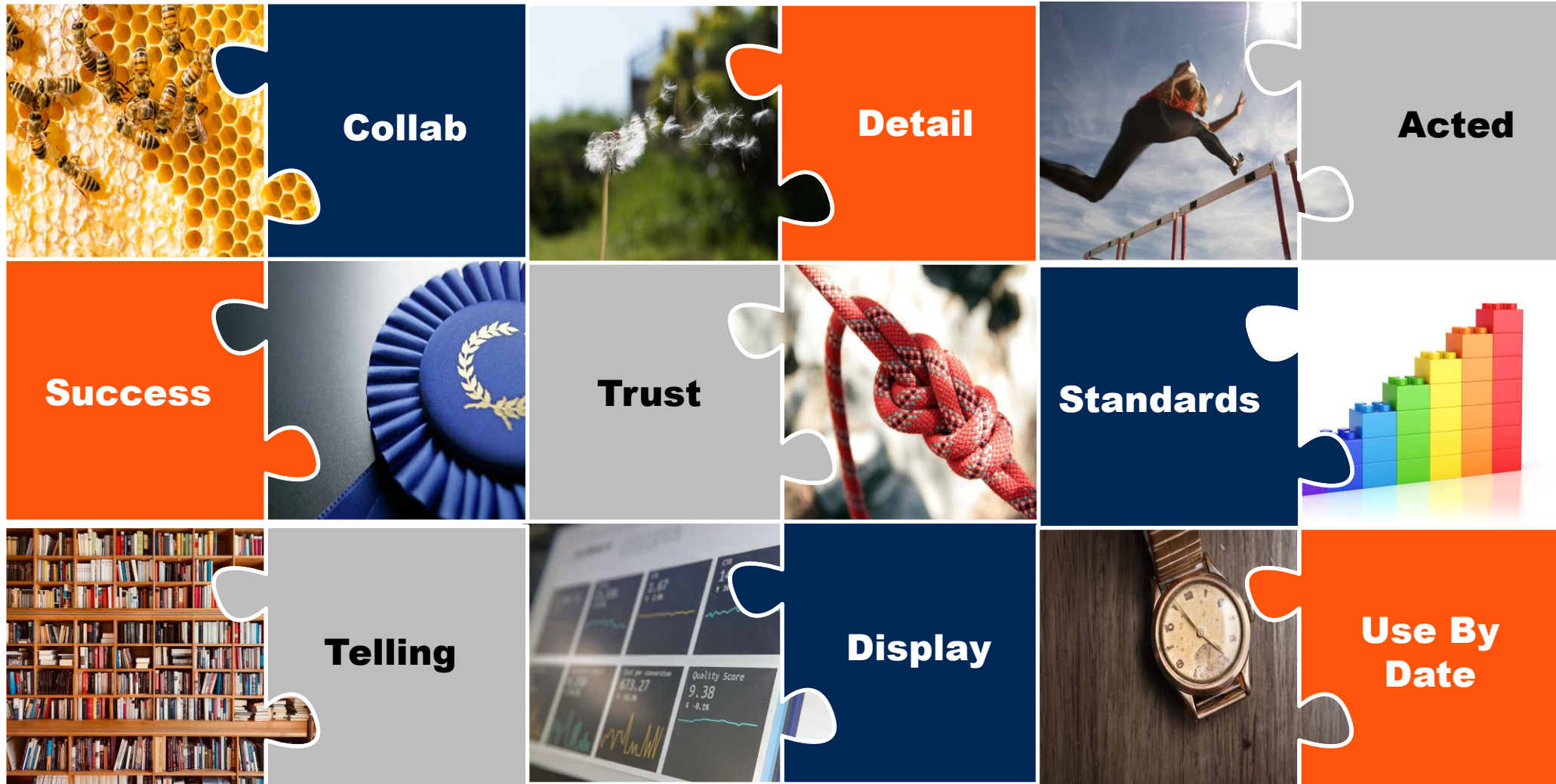
## Collaborative (Hybrid) Model



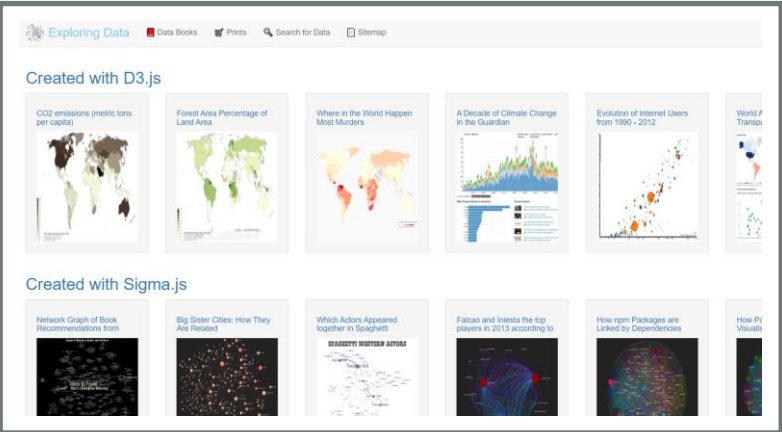
## Prosumer ("Self-Service") Model



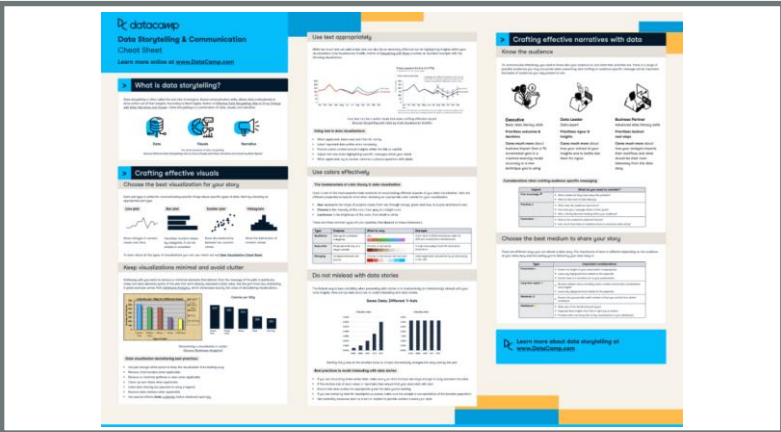
# Storytelling Considerations



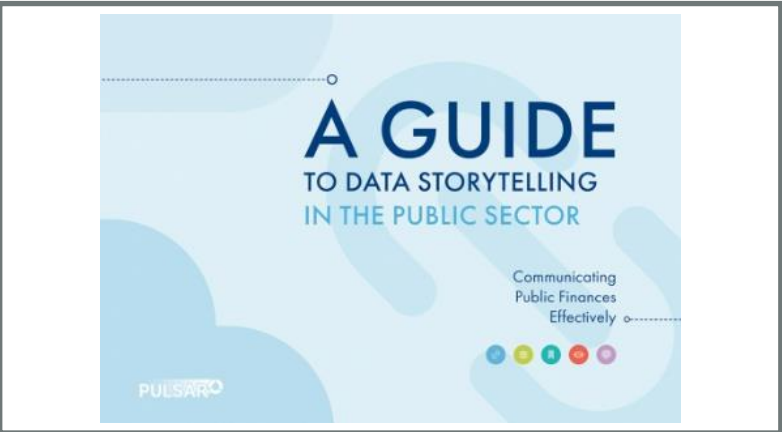
# Example Sites and Blogs



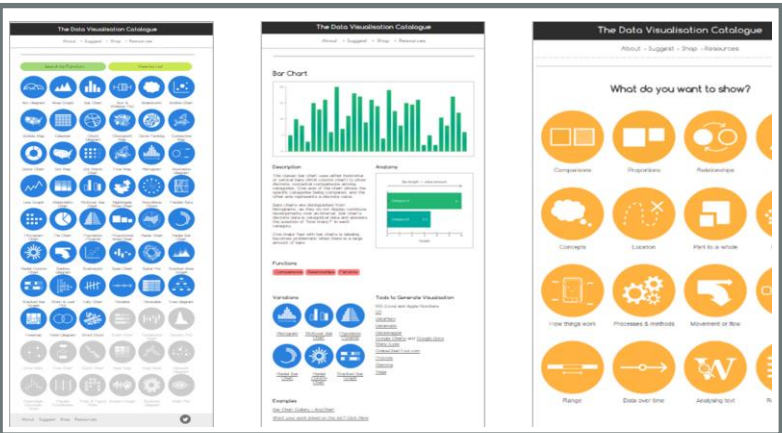
Source: [Exploring Data](#)



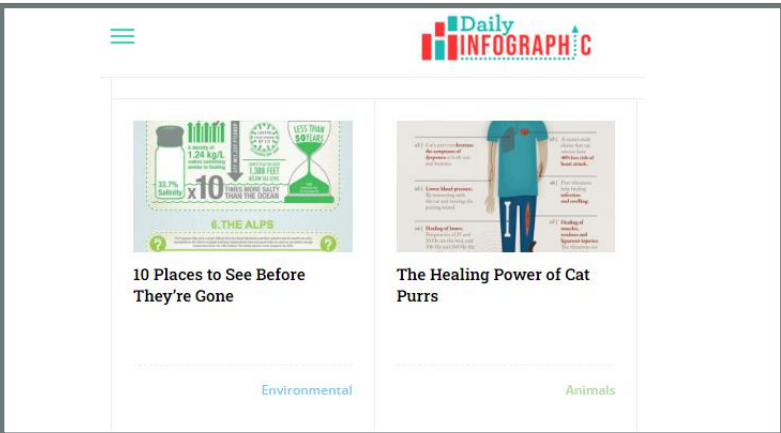
Source: [Data Storytelling & Communication Cheat Sheet](#), DataCamp



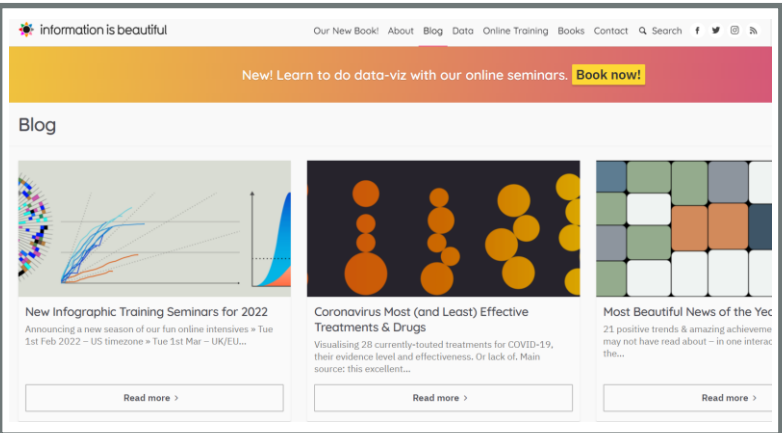
Source: [A Guide to Data Storytelling in the Public Sector](#), World Bank Centre for Financial Reporting Reform



Source: [The Data Visualisation Catalogue](#)



Source: [Daily Infographic](#)



Source: [Blog](#), Information is Beautiful

# Recommendations



- **Evaluate and experiment** with the **data storytelling capabilities**.
- **Prepare programs to develop** and instill data storytelling **skills** internally.
- **Emotional triggers — What the audience for a data story cares about** and its use?



# Thank You





# Recommended Gartner Research

- 🔍 [Augmented Analytics: Teaching Machines to Tell Data Stories to Humans](#)  
James Richardson (G00751105)
- 🔍 [Data Storytelling: Analytics Beyond Data Visualizations and Slideshows](#)  
David Pidsley and James Richardson (G00744079)
- 🔍 [How CDOs Can Use Data Storytelling to Engage and Influence Stakeholders](#)  
Alan D. Duncan and James Richardson (G00436074)
- 🔍 [Use Three Elements of Data Storytelling for Maximum Impact](#)  
James Richardson (G00325181)
- 🔍 [How to Present Your D&A Program to the Board](#)  
Frank Buytendijk and Lydia Clougherty Jones (G00344197)