

SAP BusinessObjects Lumira

Ultimate Guide to Data Storytelling

How to approach your data, select the right visualizations and put it all together into a compelling data story.

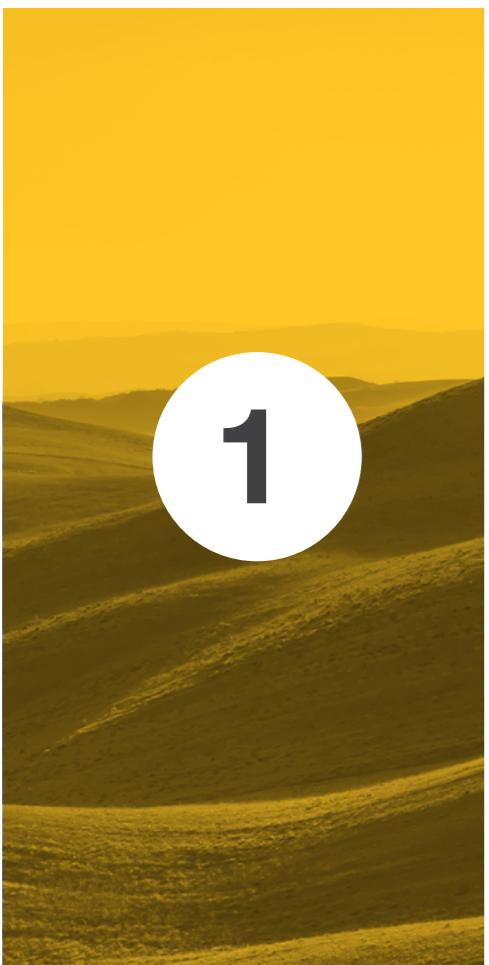
Welcome to your story.

We will

- Take you beyond your spreadsheets and presentations.
- Show you how to create compelling data visualizations.
- Discover how to approach your data.
- Utilize the data to illuminate the message.



What's in store?



**The Art of Data
Storytelling**

Slide 4

**Know Your
Purpose & Data**

Slide 7

**Craft Your
Message**

Slide 10

**Storytelling
Assets**

Slide 13

Protips
Slide 18



1

The Art of Data Storytelling

6 Reasons Why You Should Visualize

1



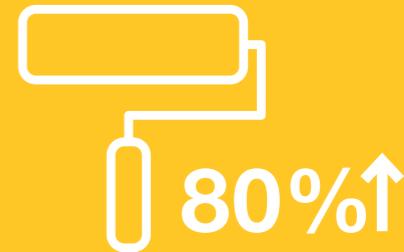
We receive 5X as much information as we did in 1986

2



How you share your story will determine the size of your audience

3



Color visuals increase willingness to read by 80%

4



We get the sense of a visual scene in less than 1/10 of a second

5



Data visualization makes it easy to recognize patterns and find exceptions while interpreting the data at a faster pace

6



90% of the data in the world today has been created in the last two years alone

Start visualizing your data with SAP BusinessObjects Lumira. [Download a free trial today.](#)

Visual Perception

- People are more inclined to perceive certain visual cues (variables) better than non-visual cues.
- Some visual cues are better at supporting: Selecting or Grouping, Measurement, Ordering, and Steps.
- Most quantitative analysis can be performed with charts that use only four kinds of objects. These objects (and their subsequent related charts) work because we immediately and more precisely perceive both position and length.





2

2.1

3.7

7.2

Know Your Purpose and Data

Know Your Purpose

Before you can begin to create stunning visualizations, you will need to make sense of your data by finding the story that speaks to your audience. Use the data to illuminate that story and the message you are trying to share, and you'll make it unforgettable.



Know Your Data

It is important to model your data appropriately, before you explore it, in order to answer your business questions correctly. Data types can be used to model certain characteristics of your data. [Download your Data Storytelling Handbook](#) and get a deeper look into data types.

Measures

Measures constitute numerical data that are calculated or aggregated – like the sum of Revenue.



1 2

Dimensions

Dimensions represent categorical (nominal), ordinal, and interval data.





3

Craft Your Message

Craft Your Message

By exploring your data you now have a better sense of what story to tell your audience. It is time to craft that message and discover which viz best articulates your information. Start by asking yourself these questions.

- 1. What is your overall goal of your data analysis?**
- 2. Who is this message intended for? What do you know about your audience?**
- 3. What do you want to answer?**
- 4. What kind of relationships exist in your data?**
- 5. What are the best techniques for displaying these? Do you need a chart (overview), a table (details), or maybe both, to convey your message?**
- 6. Can you highlight specific data points to better get your message across?**
- 7. How can you incorporate a summary of your message in your chart titles to emphasize on your overall message?**

Know Your Audience

Get to know your audience then use precognitive attributes to create great data visualizations that resonate with them. Precognitive attributes mean the image is being processed without any conscious effort. Communicating in this way means there is no need for explanation on top of the visualizations.

Use your [Data Storytelling Handbook](#) to pull together every piece of your data and create a cohesive story with a beginning, middle, and end.

Entertain them.





4

Storytelling Assets



**Because every story is unique
what you use to tell it should
be unique and specific to
your story. Choose your tools
carefully they will be the plate
your knowledge is served on.**

Selecting the Right Visualizations

Change Over Time

Shows how a measure changes over time, and allows the user to highlight temporal trends



Line Chart



Bar Chart

Comparison

Shows the comparison of categorical values, where the data does not have any intrinsic order, for example, a list of products



Bar Chart



Trellis

Ranking

Shows the top or bottom N values to emphasize the largest, or smallest values



Bar Chart

Part-To-Whole

Shows how the categories contribute to the whole value



Bar Chart



Pie Chart



Stacked Bar Chart

Distribution

Shows how a measure is spread across its domain



Histogram



Box Plot



Heat and Tree Map

Correlation

Shows whether there is a potential correlation between two measures



Scatter Plot



Trellis

Overview

Shows the exact values in table format



Table

Geographical Information and Maps

Shows the geographical distribution of measure values



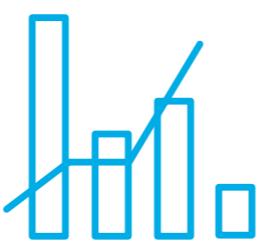
Chloropleth Chart



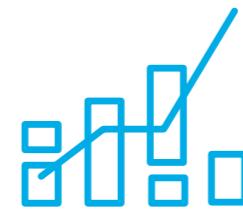
Geo Bubble

Other Chart Types

In addition to the previous chart types mentioned, SAP BusinessObjects Lumira also supports the following charts.



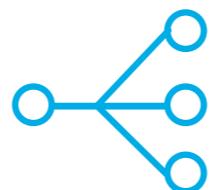
Combined Stacked Column + Line Chart



Combined Stacked Column + Line Chart with 2 Y-Axes

42K

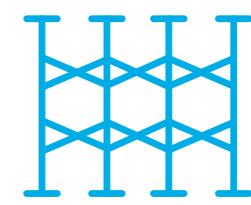
Numeric Point



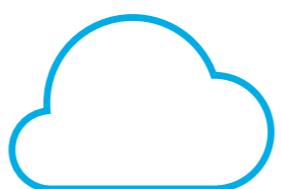
Network Chart



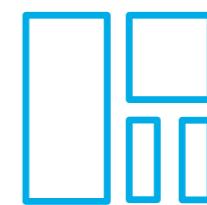
Radar Chart



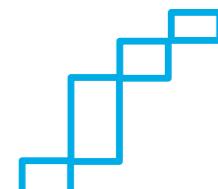
Parallel Coordinates Chart



Tag Cloud



Tree Chart



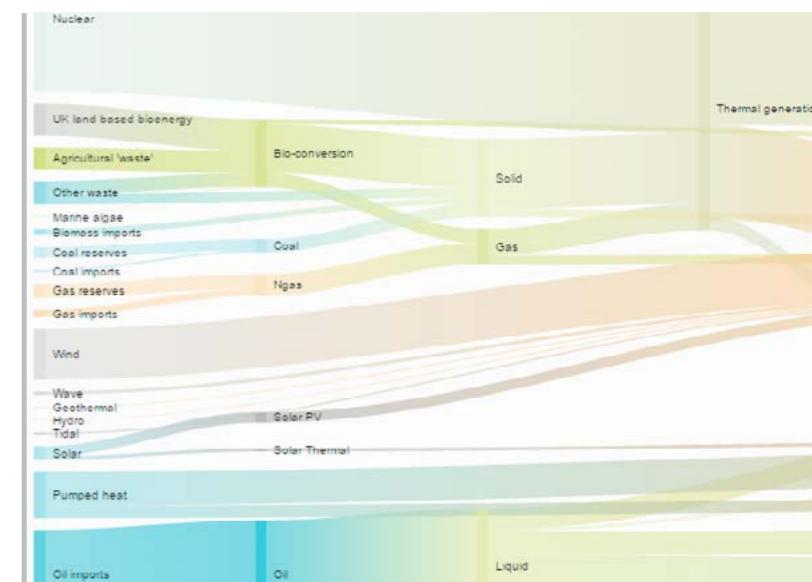
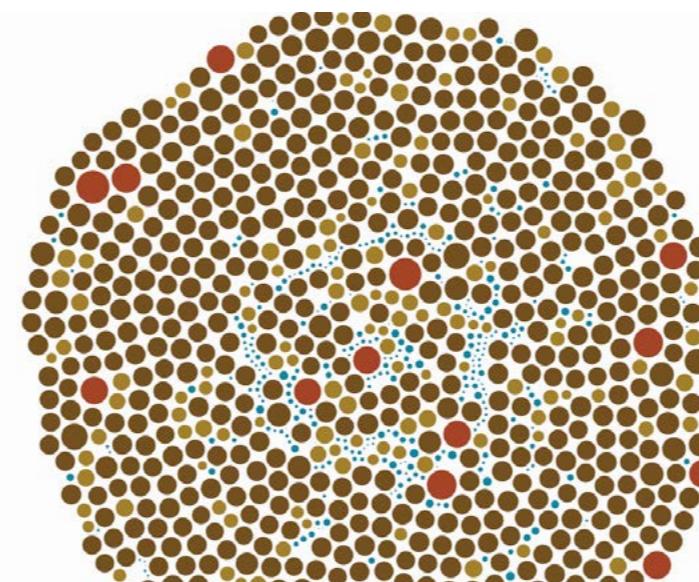
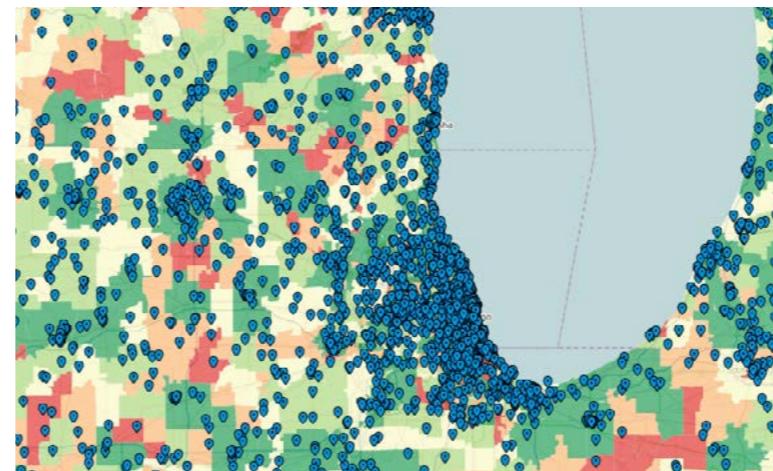
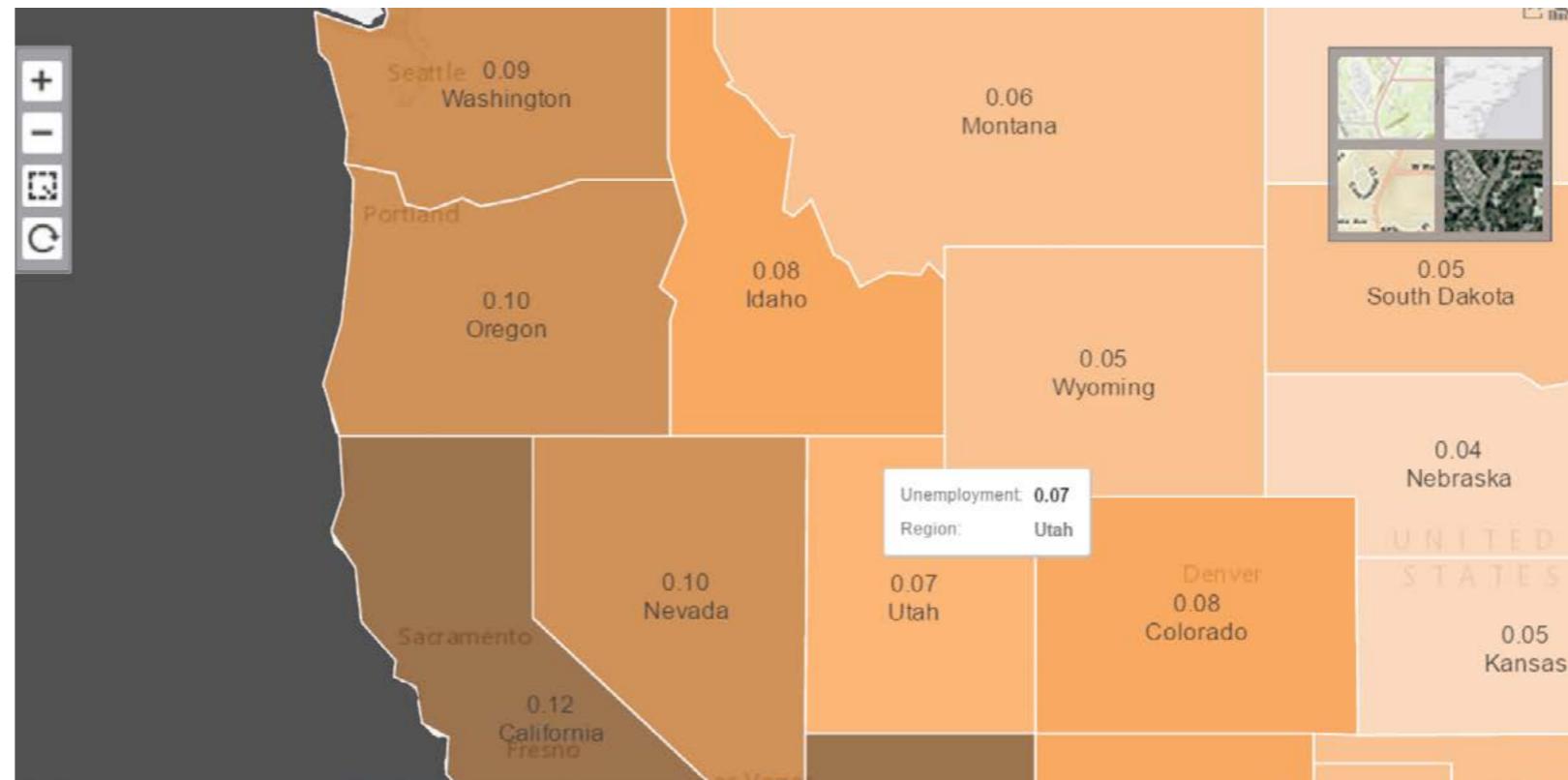
Waterfall Chart

ESRI and Other Chart Extensions

SAP Lumira also supports ESRI and Custom Chart Extensions.

- **ESRI is an international supplier of Geographic Information System (GIS) software.**
- **Custom Chart Extensions allow you to build your extension from scratch, adopt D3 charts and use open source visualizations and data access extensions.**

Get familiar with all your options when you download your full Data Storytelling Handbook.





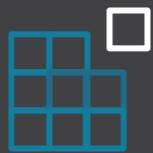
5



Protips

Protips

A great visual design standard will accelerate understanding and consumptions of your data. For your business to reap the benefits of data visualizations, organizations need to create a visual design standard that incorporates best practices.



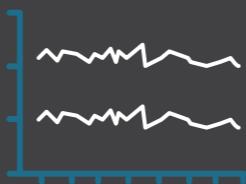
1.

Less is more. Make every pixel and word count.



4.

Avoid pie charts.



7.

Use sparklines to show trends on the X-axis.



2.

Avoid decorative use of graphics.



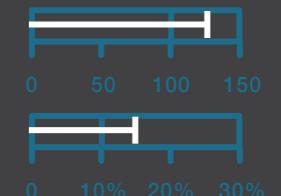
5.

Start bar charts at zero.



3.

Avoid three-dimensional chart types.



6.

Use bullet graphs instead of gauges to save space.



8.

Show time going from left to right on the X-axis.



9.

Use color only to highlight or accentuate meaning.

A black and white photograph of a woman with curly hair looking down at a laptop screen. The laptop displays a data visualization consisting of several vertical bars of varying heights, colored blue and yellow. The background is blurred.

Tell better data stories.

Download your complete data
storytelling handbook today

and

Download your free 30 day trial at:
www.saplumira.com/30daytrial



SAP BusinessObjects Lumira