DATA VISUALIZATION
THE WHAT, WHY AND HOW

DATA VISUALIZATION.
THE WHAT, WHY AND HOW.

### A SHORT EXPLANATION OF WHAT IT IS AND HOW TO USE IT

SIMPLICITY IN THE ERA OF BIG DATA

A few years ago most of us didn't know terms like big data and the Internet of Things. And now, we see things change at a speed that surpasses our ability to learn and understand. In this era of "big data" we don't need more information, but we do need more relevant and more useful information, of better quality and at the right time.

Data visualization provides an answer to that need.

01. DATA VISUALIZATION: WHAT IT IS AND WHAT IT IS USED FOR
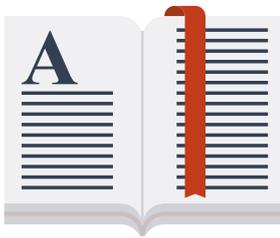
Data visualization is the visual and interactive exploration and graphic representation of data of any size, type (structured and unstructured) or origin. Visualizations help people see things that were not obvious to them before. Even when data volumes are very large, patterns can be spotted quickly and easily. Visualizations convey information in a universal manner and make it simple to share ideas with others.

It's a way to get fast insights through visual exploration, robust reporting and flexible information sharing. It helps a wide variety of users to make sense of the increasing amount of data within your organization. It's a way to present big data in a way business users can quickly understand and use. **Data visualization brings the story of your data to life.**

Data visualization can be used for different purposes. Some examples:

To create and share meaningful reports with anyone anywhere

To give anyone in the organization the power to visually explore and analyze all available data

To optimize corporate processes & to drive innovation

To forecast and quickly identify opportunities and anticipate future trends

02. WHY OUR BRAIN NEEDS DATA VISUALIZATION

Our brain is just not able to process the huge amounts of data generated or processed in a company. This also means that every day, managers take decisions without understanding all the information hidden in their company data.

> Thanks to visualization, the brain can process, absorb and interpret a large amount of information.

Data visualization was created to visually explore and analyze data quickly. It's designed for anyone in your organization who wants to use and derive insights from data regardless of analytic skill level – from influencers, decision makers and analysts to statisticians and data scientists. It also offers IT an easy way to protect and manage data integrity and security.

The amount of data will continue to grow while often time and resources to interpret the data continue to decrease. Data visualization will become one of the few tools able to help us win that challenge.

03. **4 REASONS** WHY COMPANIES – SMEs AS WELL AS BIG ONES – CAN'T MANAGE WITHOUT DATA VISUALIZATION

1 | ### Data visualization allows you to spot market trends and grow your business

Data visualization helps uncover insights buried in your data and discover trends within your business and the market that affect your bottom line. Insights in your data can provide competitive advantage and the opportunity to differentiate.

2 | ### Data visualization allows you to know your market's dynamics like never before

Data visualization lets you read your market intelligently, compare your overall position with the industry trend, define the most appreciated features of your products and adapt development accordingly, combine information about sales with consumer preferences and much more.

3 | ### Data visualization allows you to know your customers' needs and act on it.

Knowing your customer better leads to more effective sales and marketing actions and enhances customer experience.

4 | ### Data visualization allows you to share information quickly and to make the right decisions at the right time

Data visualization provides information that is easy to understand and to share. Company KPIs are always under control. Data from a variety of internal and external sources is channeled into one single, shared source of information. Data-driven information that can spark innovation.
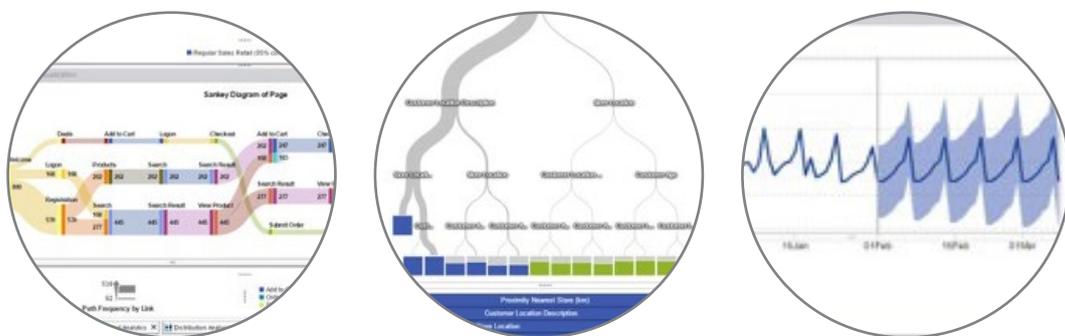
04. VISUAL ANALYTICS:
DATA DRIVEN DECISIONS
TO MAKE BUSINESSES GROW

SAS Visual Analytics supports anyone who has to make the best business decisions, as quickly as possible. Based on reliable data.

The solution combines the power of **high-performance** analytics and **in-memory** technology, with the simplicity of a user-friendly, sexy and intuitive interface. High-performance analytics and in-memory technology; two concepts behind which all the innovation and power of this solution is hiding.

Visualization makes sense only if powerful analytics is behind, capable of processing high volumes of structured and unstructured data.

The solution can also be used from a mobile device and allows the user – whatever his analytical skills – to closely monitor the key elements of the business and to discover and anticipate emerging market trends.

SAS Visual Analytics marks a turning point in the world of analysis because it enables you to prepare, explore and model multiple business scenarios, using all data available and not just samples or clusters.

You can use it effectively in a wide range of company departments: Marketing, Sales, Admin, IT, Human Resources, Risk Assessment or more.

SAS Visual Analytics allows you to analyze billions of rows in seconds and produce an attractive and simple presentation of the results. Data and information can also be used on the move.

7

SAS Visual Analytics — Data Visualization. The What, Why and How

Discover the success stories of SAS Visual Analytics users.

Blocking Cyber Attacks at Telecom Italia Security Lab

Telecom Italia's Security Lab plays a fundamental role to identify emerging trends and anticipate the signs of threats. This is about revealing unknown phenomena and changing trends from the mass of data. SAS data visualization allows their analysts to investigate the collected information from a different perspective to discover new correlations, identify new phenomena. SAS Visual Analytics enables them to detect and block attacks in minutes.
Read here how Telecom Italia uses SAS Visual Analytics for other purposes too.

Excellence in operations and strategic planning at Frankfurt Airport

Frankfurt Airport in Germany flies more than 57 million passengers and 2 million metric tons of freight to 113 countries each year – making it Europe's third-busiest airport. It's up to transport company Fraport AG to make sure that airport operations can handle so much traffic. Using SAS® High-Performance Analytics and SAS Visual Analytics, Fraport is reducing the cost of operations and boosting the performance of decision-support processes.

Develop customer insight, competitiveness and operational efficiency at Electrabel

If you need to easily track marketing budgets, balance employee workloads and target customers with tailored marketing messages, you probably think you need three different solutions. Electrabel GDF SUEZ is doing all of that for its marketing and sales business unit with SAS® Visual Analytics.

"We have significantly improved our efficiency and can deliver quality data and reports more frequently, and at a significantly lower cost." Danny Noppe, Reporting Architecture and Development Manager

Making debt collection less painful at Direct Pay

Data visualization helps DirectPay improve client relationships, better manage risk and repayment potential. DirectPay has a complete view of its customers and can make individualized decisions for the debt-collection process. The company is in a position to better manage risks and be more profitable and competitive.

## Fast, reliable and efficient visualization and data exploration at Psychiatric Hospital Center of Lisbon

Centro Hospitalar Psiquiátrico de Lisboa (CHPL), a Portuguese Mental Hospital, uses SAS Visual Analytics to visualize and explore data. The objective is to provide better mental health care and improve internal workflows. The result was an improvement in operations, more efficiency and smarter use of data

Optimized processes at Cope Group

Cope, a Spanish radio network, owned by Radio Popular SA, is going to use SAS Visual Analytics to get more insights in the data from different departments. Cope has made a firm commitment to analyticals and visual data exploration in order to optimize its operations, gain efficiency by improving strategy definition and decision making.

Optimizing sales of health insurance contracts at Groupe Santiane

Santiane, first online health insurance broker in France, adopts SAS® Visual Analytics to exploit the large volume of data to optimize its sales of health insurance contracts. Santiane has equipped its management teams (general, financial, commercial) with SAS Visual Analytics to guide their decisions, exploring their data on PC and tablets.
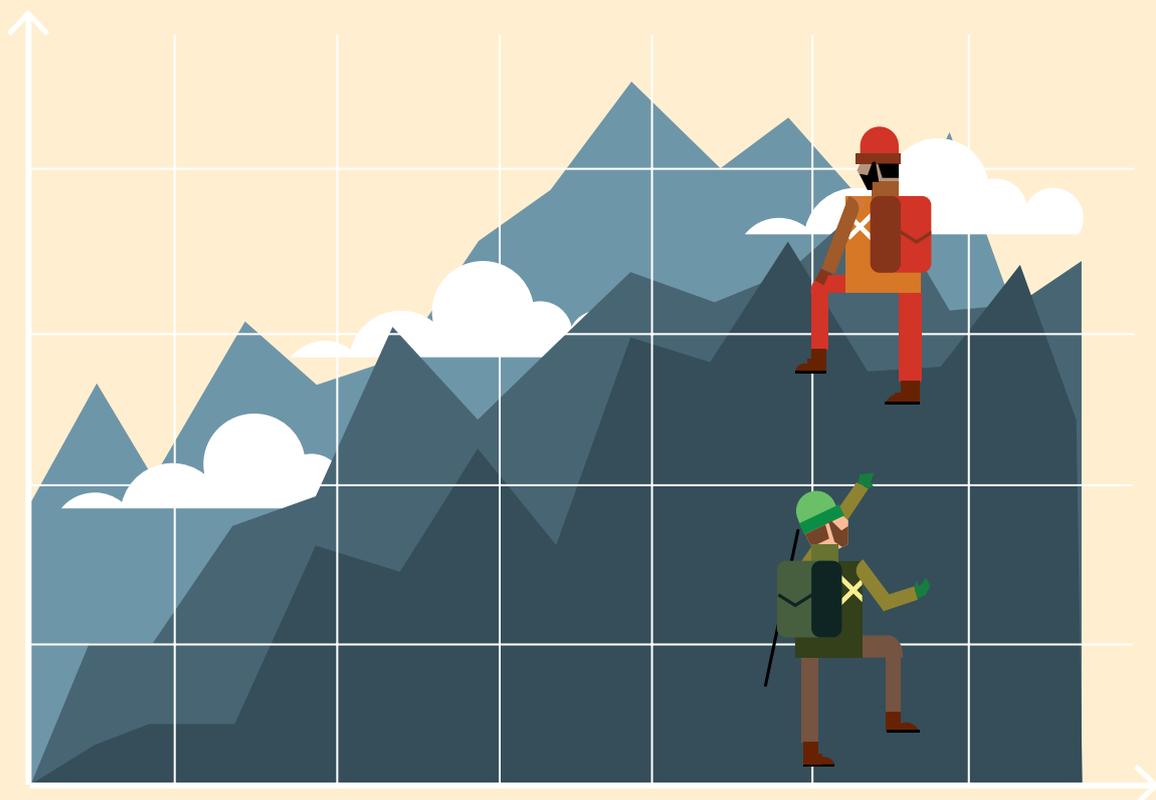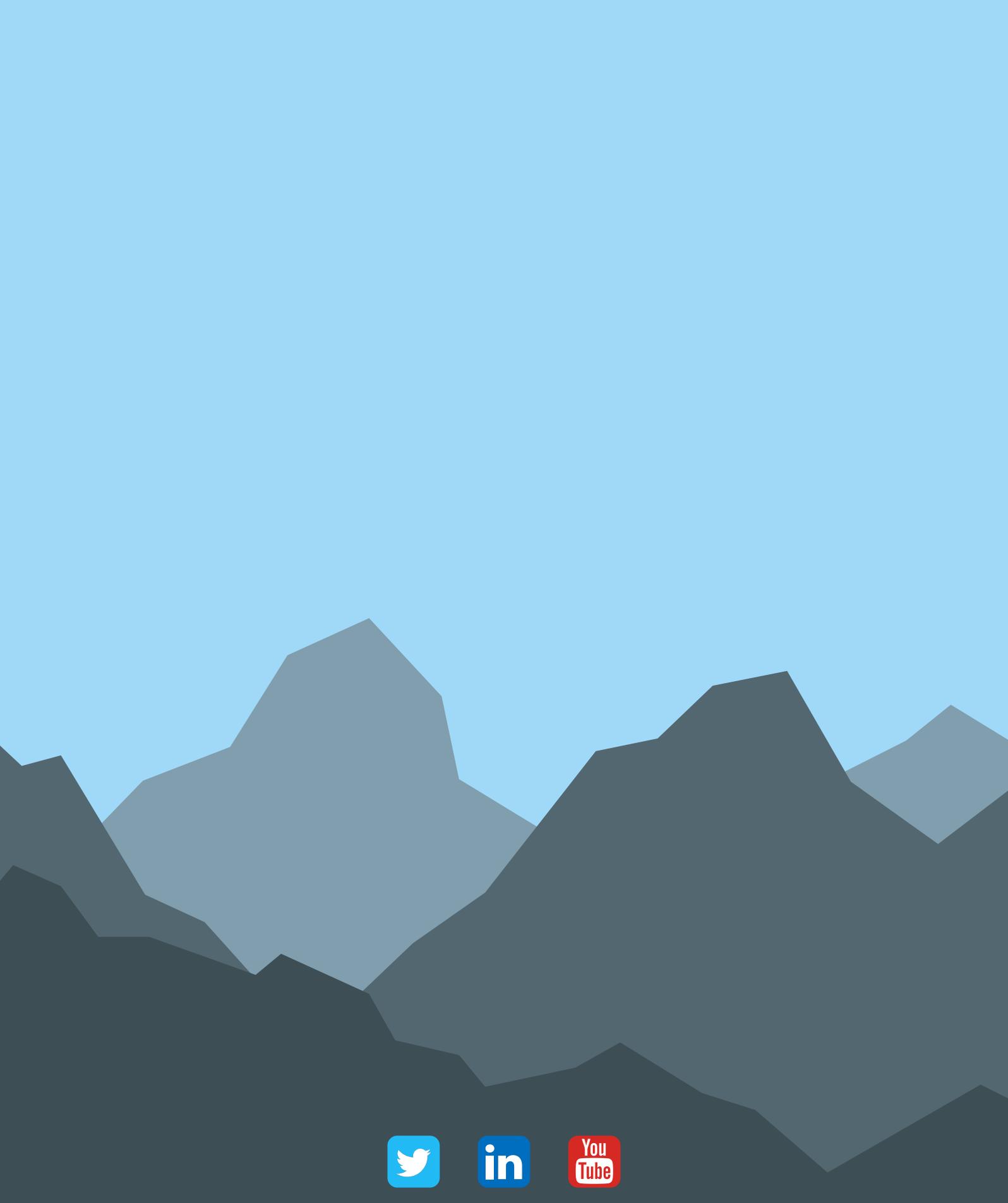
SAS Institute NV/SA – HERTENBERGSTRAAT 6 - 3080 TERVUREN - BELGIUM
TEL. : +32 2 766 07 00   FAX : +32 2 766 07 77
SAS Institute sàrl - 204, ROUTE D'ARLON - 8010 STRASSEN - LUXEMBOURG
TEL. +352 26 11 84   FAX+352 26 31 11 84   www.sas.com/belux