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# Data acquisition and management

## CAS Applied Data Science - Module 1

Dr. Anja Mühlemann

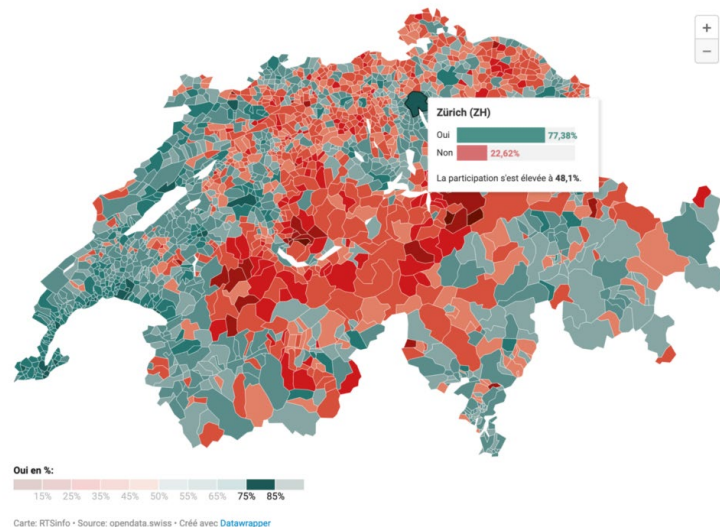
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# Open Questions from yesterday

# Data Visualisation Examples

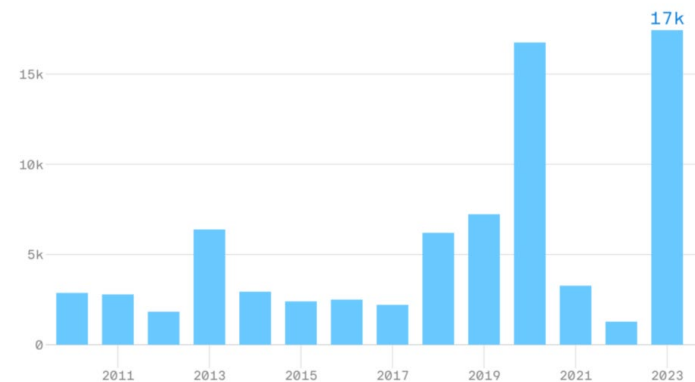
## La loi sur le climat

Résultats définitifs



## Announced media job cuts

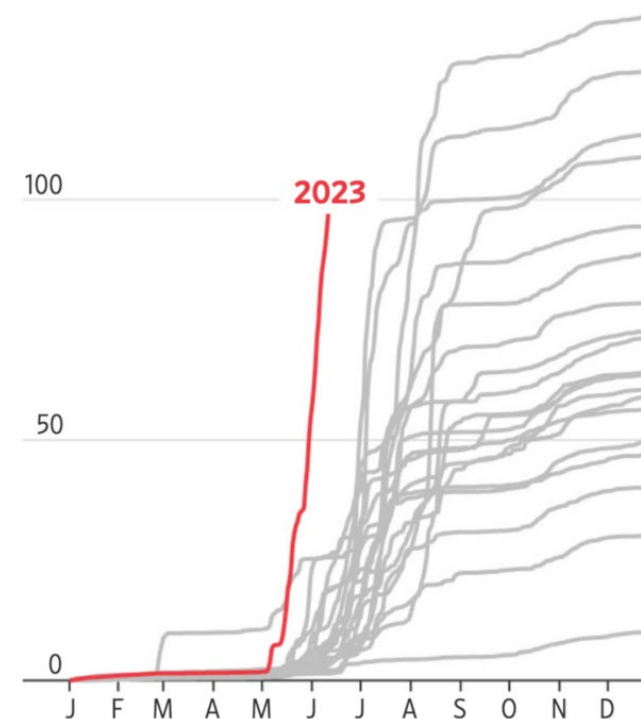
Year-to-date, as of June 1, 2023



Data: Challenger, Gray & Christmas Inc.; Chart: Axios Visuals

## Cumulative daily carbon emissions from Canadian wildfires for the last 20 years

150 million metric tons



Source: Copernicus Atmosphere Monitoring Service/European Centre for Medium-Range Weather Forecasts

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# Why?

Helps understand the data and makes

- patterns
- similarities
- differences
- correlations
- ...

visible.

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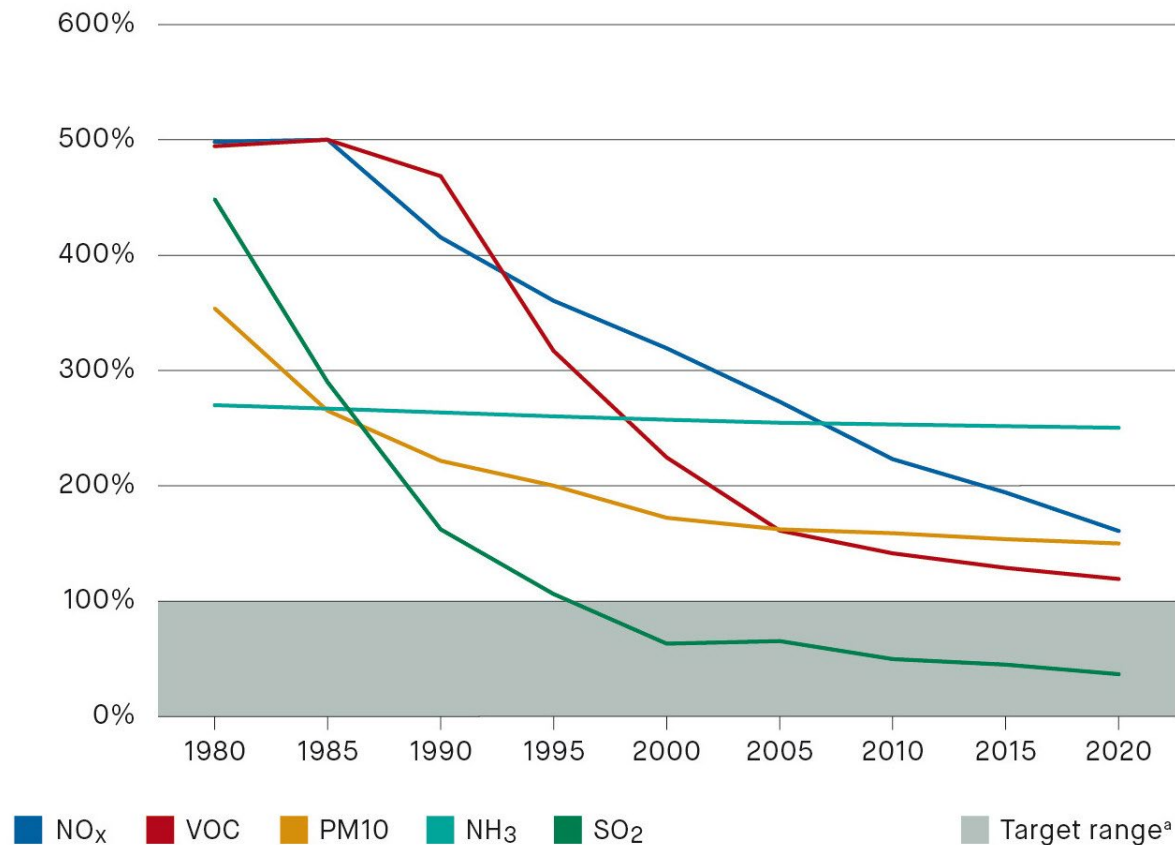
# Rules

- Avoid distortion
- Use diagrams that suit your data
- Label axes
- Make figures easily understandable
- Add Legends if necessary
- ...

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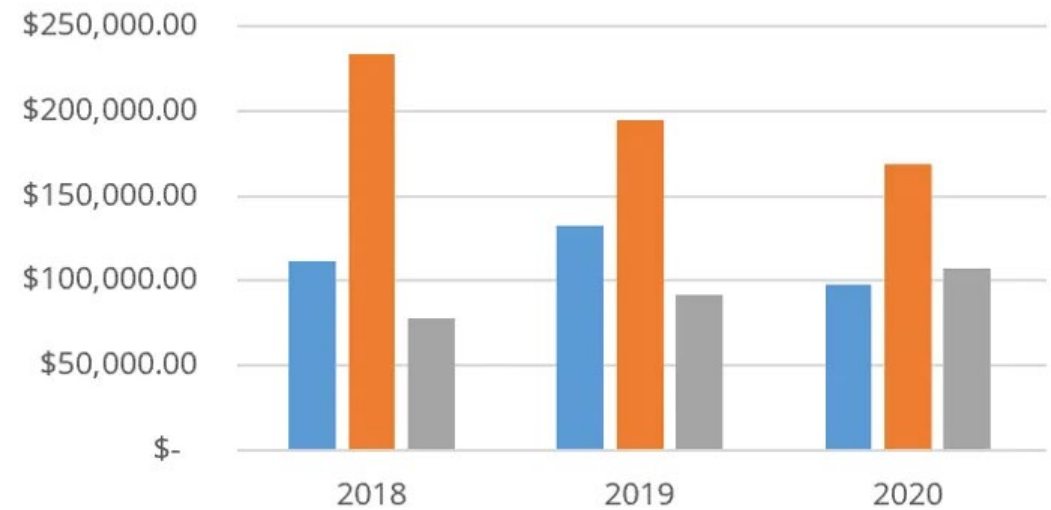
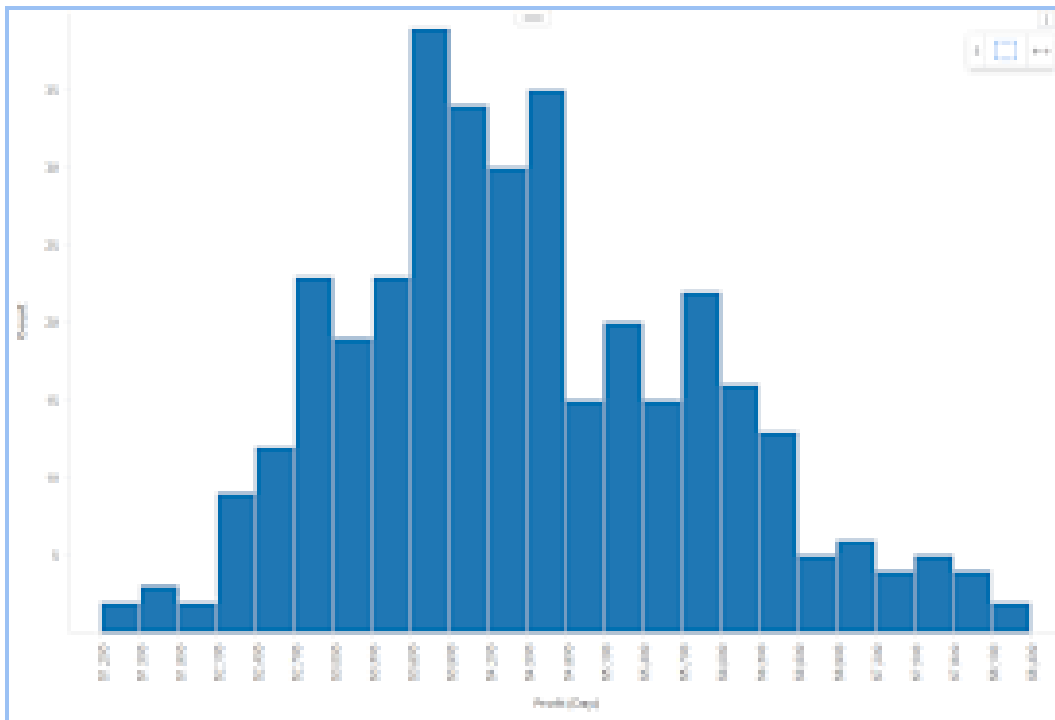
# Line Charts

- For time series
- Helps to visualize trends and patterns



# $u^b$ Histograms / Bar plots

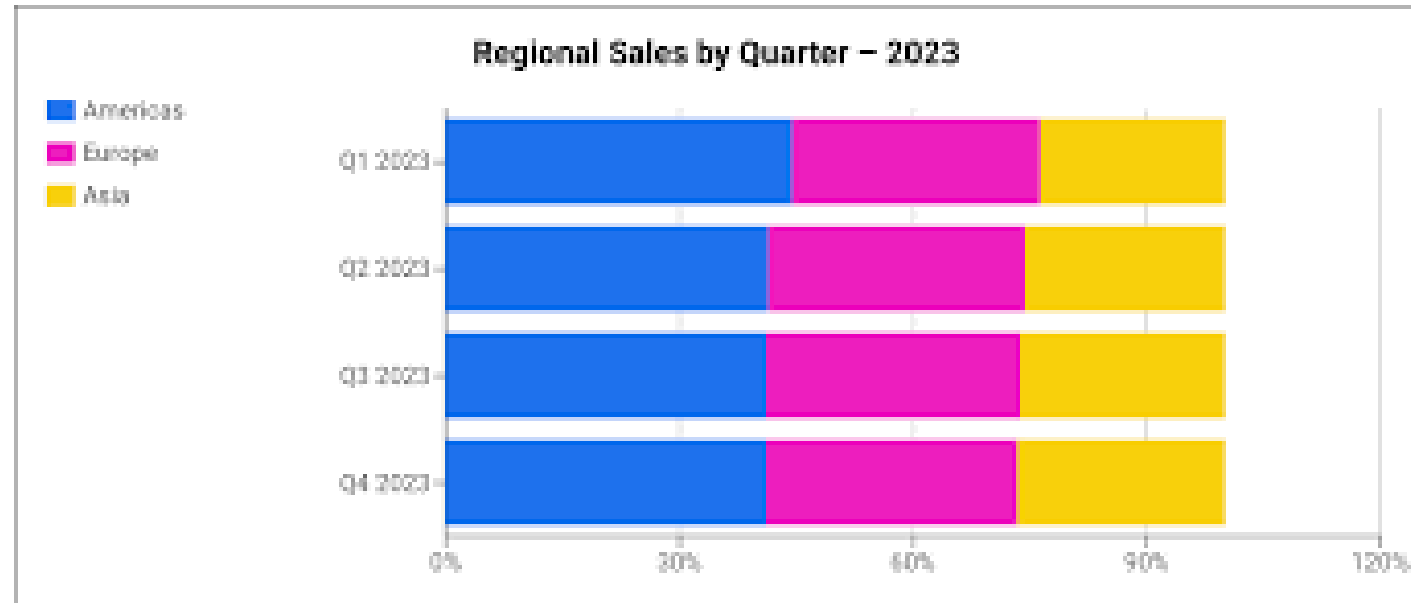
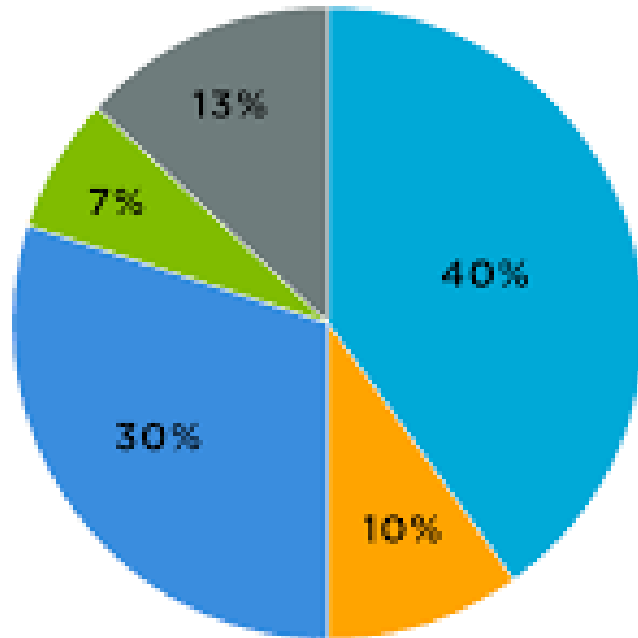
- To illustrate frequencies



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# Stacked Bar Charts / Pie Charts

- To illustrate the percentage on a whole





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# Scatterplots

- To illustrate the correlations between two features

