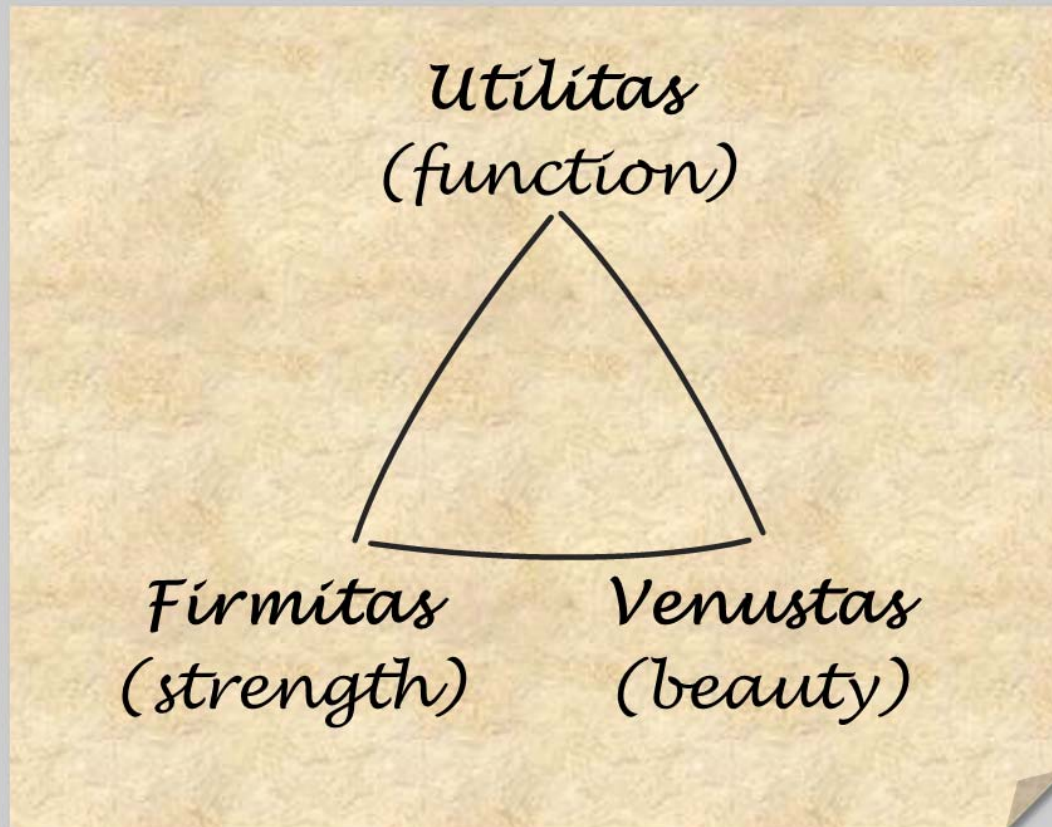


# Data Visualization

How to ensure understandable and sustainable statistical products

Sibylle von Oppeln-Bronikowski, Christoph Bergmann  
Federal Statistical Office (Destatis), Germany

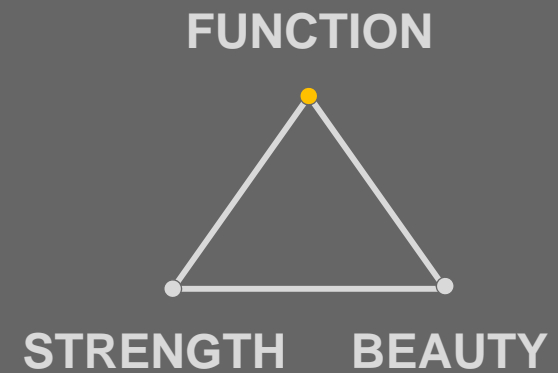
# Vitruvius triangle



# Vitruvius triangle

## Function

- Efficiency
- Effectiveness
- Usability



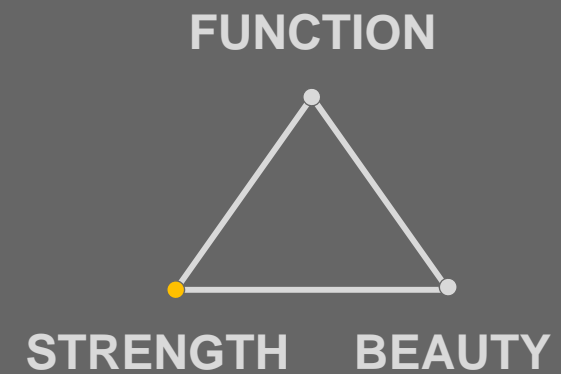
# Vitruvius triangle

## Function

- Efficiency
- Effectiveness
- Usability

## Strength

- Robust technology
- Variety of output media



# Vitruvius triangle

## Function

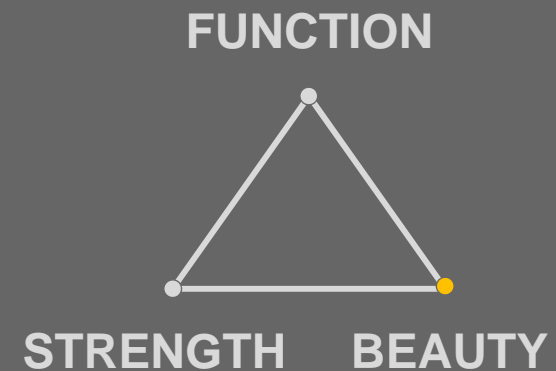
- Efficiency
- Effectiveness
- Usability

## Strength

- Robust technology
- Variety of output media

## Beauty

- Aesthetics
- Graphic Design



# Aesthetics

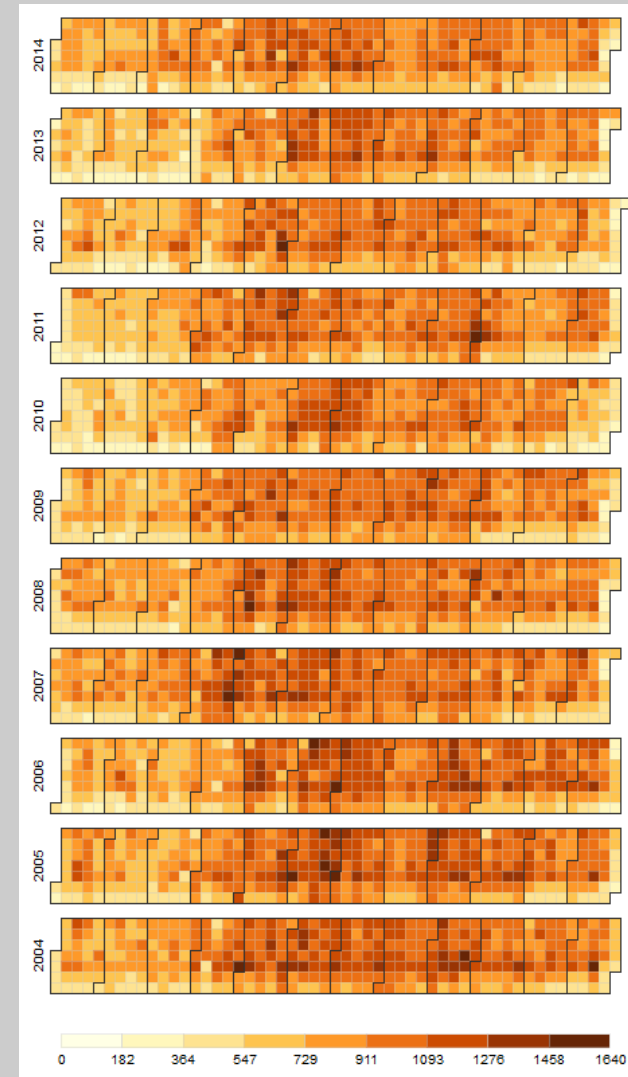


MAYYA\*

\*Most Advanced Yet Acceptable

# Most Advanced

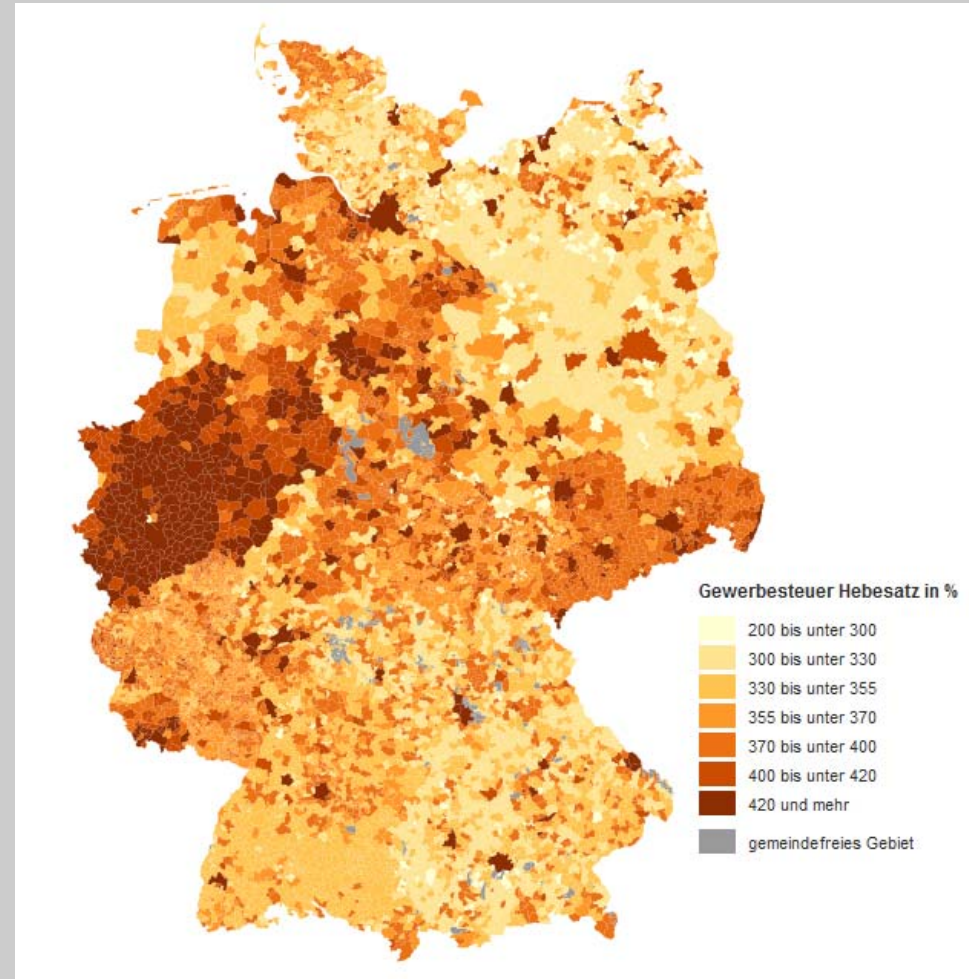
- Indicator for frequent updates
- Professionalism
- “What is beautiful is usable”
- Good design attracts and engages people



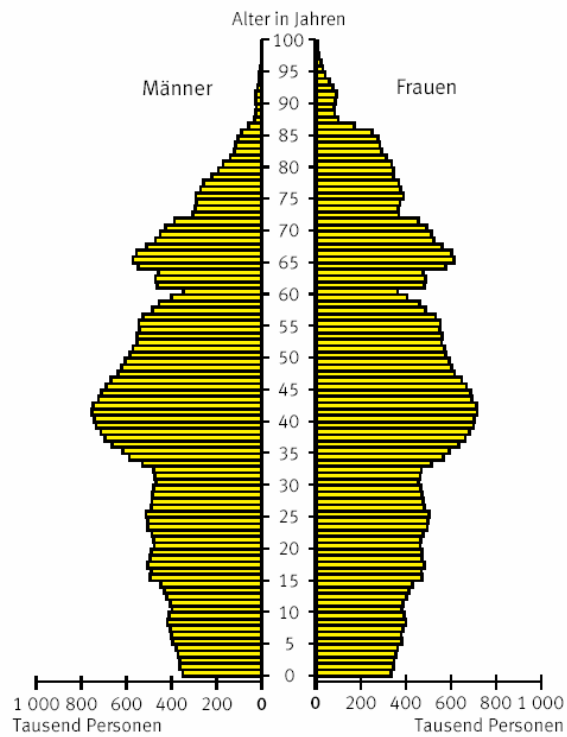


# Yet Acceptable

- Reputation (“Official Statistics”)
- “Data define the shape”
- Support functionality
- Performance

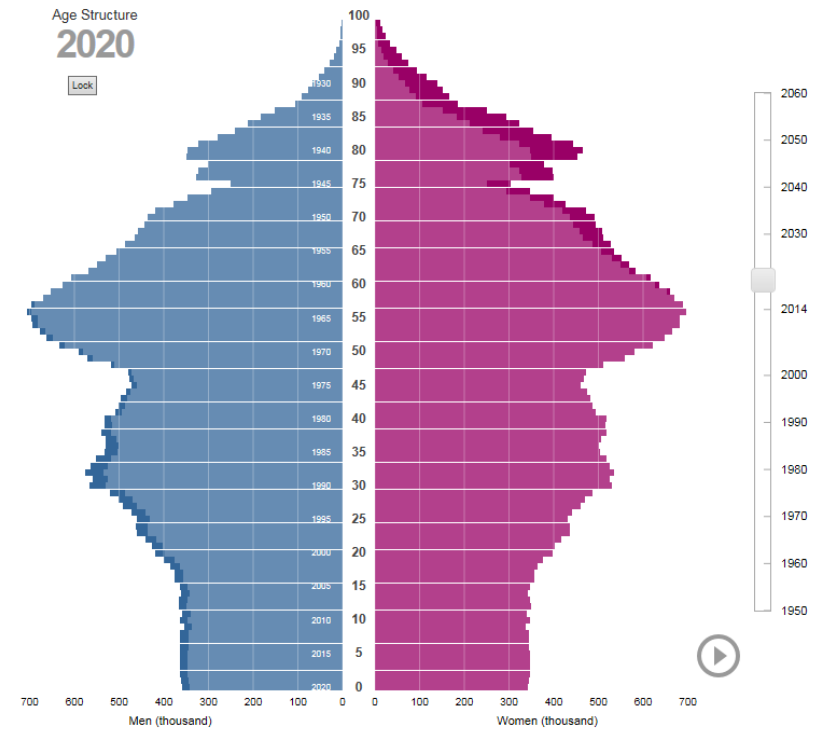


am 31.12.2005



2006

13th coordinated Population Projection for Germany

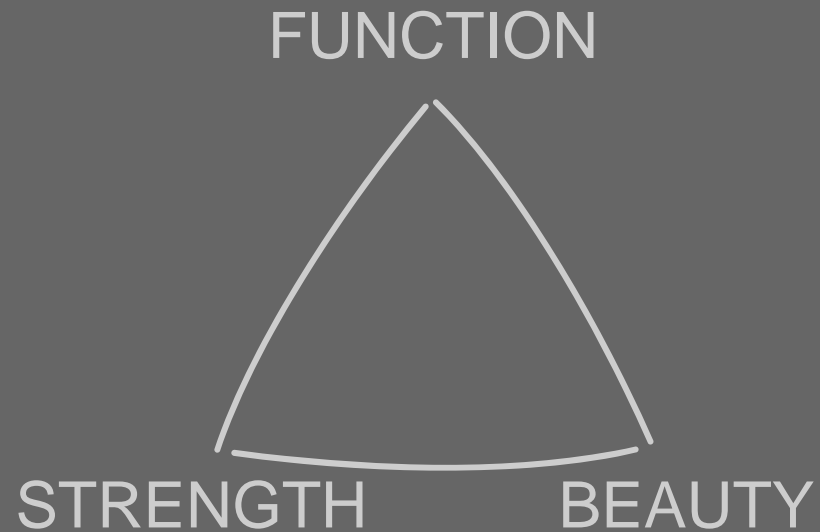


Embed this graphic </>

2015

# Competencies

- Statistical expertise
- Special technological knowledge
  - Programming skills / Web technologies (JS, SVG)
  - Motion Graphics, editing (video)
- UX-Design (usability)
- Graphic / Web Design



# Sustainable Data Visualization