# Codebook bundeslaendeR geofacet grid

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## de\_states\_grid\_4x4()

de\_states\_grid\_4x4() exports a data frame containing state IDs, german and english state names and approximate state locations on a 4x4 grid. The exported data frame can be used to approximately plot state-facets in their approximate locations using ggplot2 extension geofacet.

Please find a comparison of state locations and the grid layout below.

### **Example Code:**

```
library(bundeslaendeR)
library(tidyverse)
library(geofacet)
turnout_plot <-</pre>
ltw_election_results %>%
  select(state, election_date, turnout) %>%
  distinct() %>%
  filter(!(state %in% c("WB", "BA", "WH"))) %>%
  filter(!is.na(turnout)) %>%
  ggplot(aes(x = election_date, y = turnout)) +
   geom line() +
   facet_geo(grid = de_states_geofacet_grid_4x4(linebreak = T),
              facets = ~state, label = "name") +
   scale_y_continuous(limits = c(0,1),
                       labels = scales::percent) +
   theme minimal() +
   theme(strip.text = element text(face = "bold")) +
   labs(x = NULL, y = "Turnout")
```

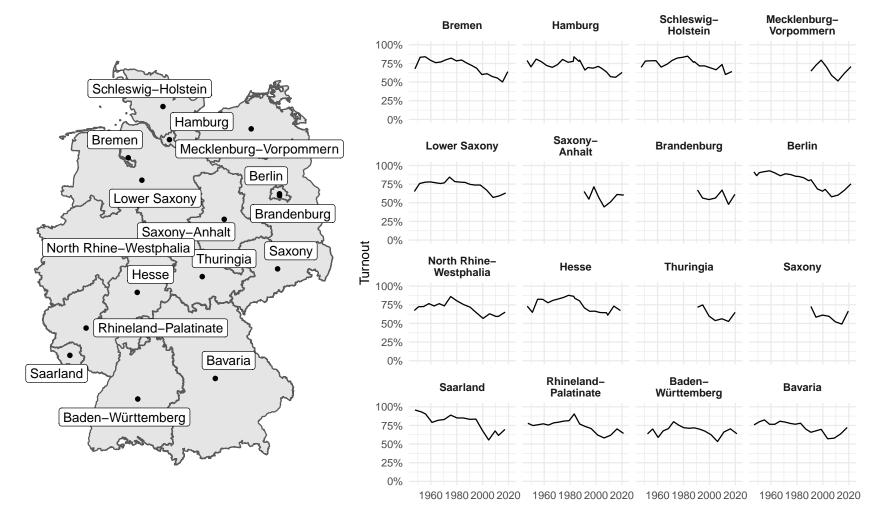


Figure 1: Comparison of state location and grid layout