Formatting, Latex, plot and table samples

output: Rmarkdown PDF

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```
library(tidyverse) # import/wrangle
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.0 --

## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.0.4     v dplyr   1.0.2
## v tidyr   1.1.2     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.0

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(ggplot2) # plot/maps
library(tmap) # Dataset/Maps
library(kableExtra) # tables
```

```
##
## Attaching package: 'kableExtra'

## The following object is masked from 'package:dplyr':
##
##     group_rows
```

```
library(viridis) # palettes
```

```
## Loading required package: viridisLite
```

Mögliche Packages

rtcles

Mögliche Lösungen für 2 Spalten: https://github.com/yihui/rmarkdown-cookbook/issues/19

Text

Headline 1

Headline 2

Headline 3

Headline 4

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Data

```
data("World")

# Data mit geometry
WorldGeom <- World
# Data ohne
WorldData <- World %>%
  sf::st_drop_geometry()
```

Map

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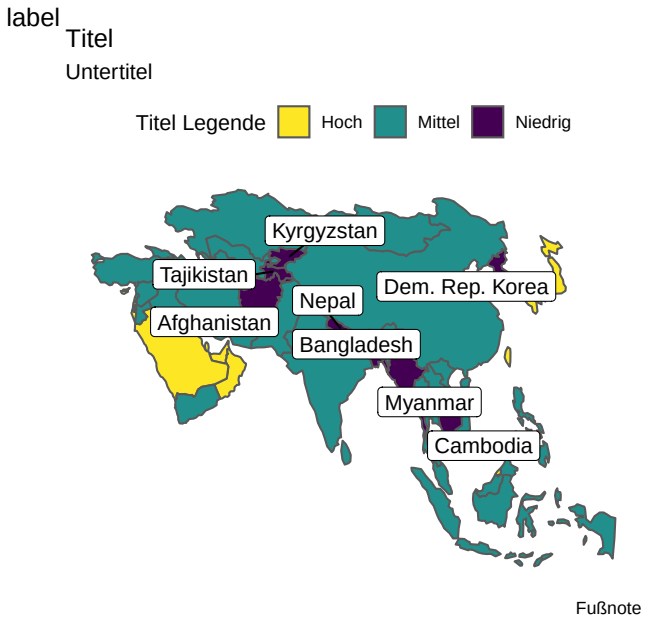

Scatter

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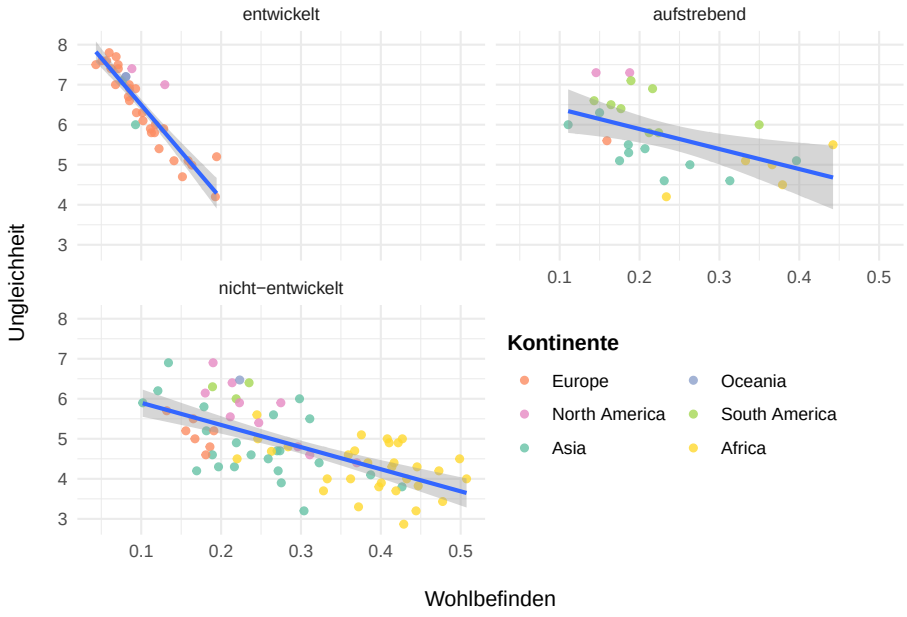
```
# Manuelle Farbpalette
PAL_well <- c("#fc8d62","#e78ac3","#66c2a5", "#8da0cb","#a6d854","#ffd92f","#e5c494")

scatterData <- WorldData %>%
    select(
    name,
    continent,
    inequality,
    well_being,
    gdp_cap_est,
    economy) %>%
  group_by(
    continent) %>%
  mutate(avg_gdp = mean(gdp_cap_est, na.rm = TRUE)) %>%
  ungroup() %>%
  drop_na() %>%
  mutate(
    # Vereinigung der Kategorien
    economy = forcats::fct_collapse(economy,
      "entwickelt" = c("1. Developed region: G7", "2. Developed region: nonG7"),
      "aufstrebend" = c("3. Emerging region: BRIC", "4. Emerging region: MIKT", "5. Emerging
      "nicht-entwickelt" = c("6. Developing region", "7. Least developed region")))

  ggplot(scatterData) +
  geom_point(
    aes(
      inequality,
      well_being,
    colour = fct_reorder(continent, desc(avg_gdp))),
    alpha = 0.8) +
  facet_wrap(
    ~ economy,
    nrow = 2) +
  scale_colour_manual(
```

```
    values = PAL_well,
    guide = guide_legend(
                      title.position = "top",
                      title="Kontinente",
                      direction="horizontal",
                      nrow = 3,
                      ncol = 2)) +
  geom_smooth(aes(x = inequality, y = well_being), method = "lm") +
  theme_minimal() +
  xlab("Wohlbefinden") +
  ylab("Ungleichheit") +
  theme(
    # Legenden Position, Alternativ: "top", "bottom", "right", "left"
    legend.position = c(0.72, 0.27),
    # Legenden Schrift fett
    legend.title = element_text(face="bold"),
    # Abstand der Achsentitel zum Achsentext
    axis.title.x = element_text(margin = margin(t = 15, r = 0, b = 0, l = 0)),
    axis.title.y = element_text(margin = margin(t = 0, r = 15, b = 0, l = 0)))
```

```
## `geom_smooth()` using formula 'y ~ x'
```



kableExtra

```
kableData <- WorldData %>%
  select(
    continent,
    pop_est_dens,
    gdp_cap_est,
    life_exp,
    well_being,
    inequality,
    HPI) %>%
  group_by(continent) %>%
  summarise(
    across(
      pop_est_dens:HPI,
      ~round(
        mean(., na.rm = TRUE)
        ,1))) %>%
  filter(!is.na(well_being))
```

```
## `summarise()` ungrouping output (override with `.groups` argument)
```

```
  kableExtra::kbl(kableData,
    col.names = c(
      "Kontinent",
      "Bevölkerungsdichte",
      "BIP (pro Kopf)",
      "Lebenserwartung",
      "Wohlbefinden",
      "Ungleichheit",
      "Happy Planet"),
    booktabs = T) %>%
  kableExtra::add_header_above(c(
    " " = 4,
    "Index" = 3)) %>%
  kableExtra::kable_styling(latex_options = c(
    "striped",
    "scale_down",
    "reapeat_header"))
```

				Index		
Kontinent	Bevölkerungsdichte	BIP (pro Kopf)	Lebenserwartung	Wohlbefinden	Ungleichheit	Happy Planet
Africa	60.4	3391.9	59.8	4.4	0.4	19.9
Asia	176.0	13605.7	71.7	5.1	0.2	27.9
Europe	114.6	25960.5	77.9	6.1	0.1	27.2
North America	136.3	14725.4	73.9	6.1	0.2	32.2
Oceania	19.4	13074.2	78.3	7.0	0.1	31.0
South America	20.6	11045.6	74.2	6.3	0.2	32.3