COVID-19 in AUSTRIA

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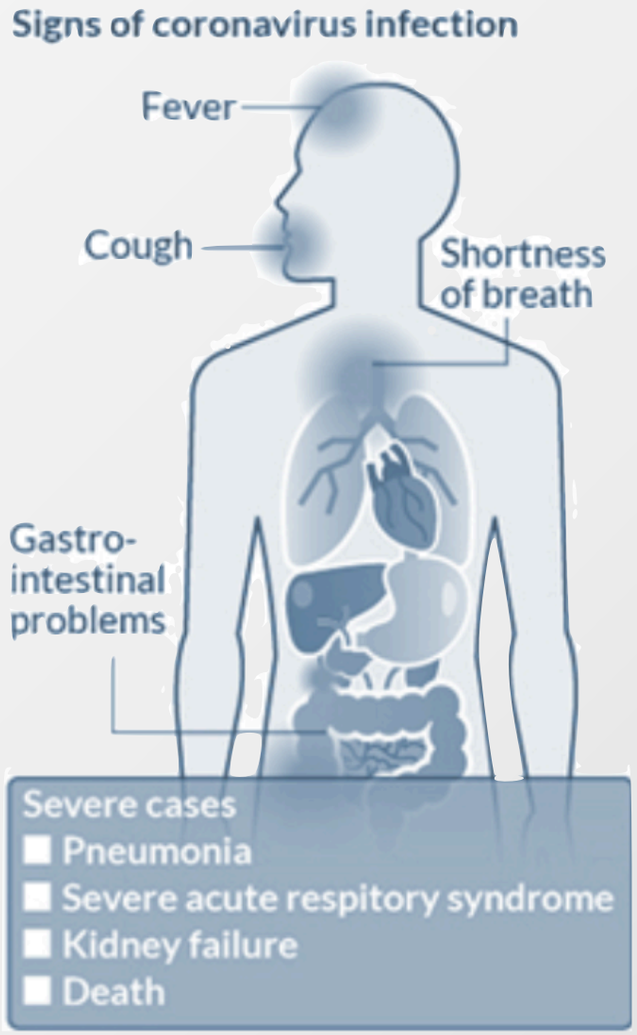
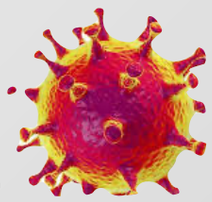
COVID-19

- COVID-19 (coronavirus disease 2019) is an infectious disease caused by the SARS-CoV-2 coronavirus.
- First described in Metropole Wuhan in 2019, developed to an epidemic in China in January 2020, and spread to the global COVID-19 pandemic.
- The exact source of the outbreak is still unknown. Like other respiratory pathogens, the virus is believed to spread mainly through droplet infection.

Symptoms

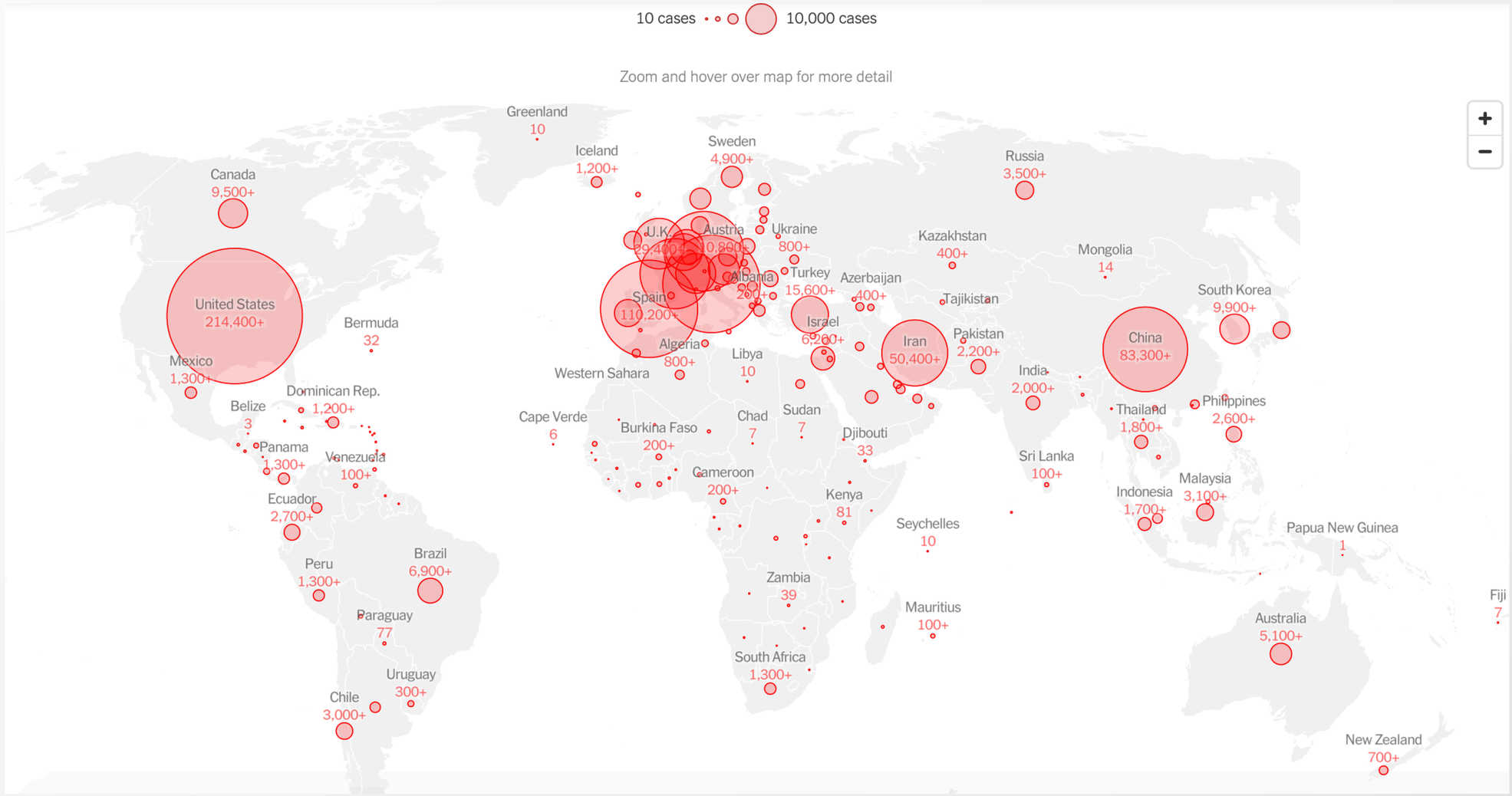
	COVID-19	cold	flue (Influenza)
fever	often	rarely	often
fatigue	sometimes	sometimes	often
cough	often	rarely	often
sneeze	no	often	no
limb pain	sometimes	often	often
cold	rarely	often	sometimes
sore throat	sometimes	often	sometimes
diarrhea	rarely	no	sometimes
headache	sometimes	rarely	often
breathlessness	sometimes	no	no

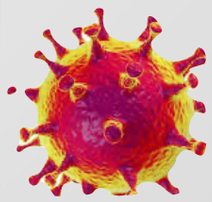




Expansion

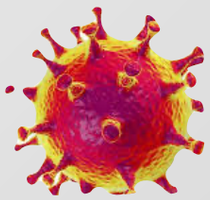
There are now more than 940,000 confirmed cases of coronavirus in 180 countries and at least 47,500 people have died.
The United States now have more confirmed cases than any other single country, including China where the disease emerged in December 2019.
More than half of all the cases are in Europe, with Italy and Spain worst affected.





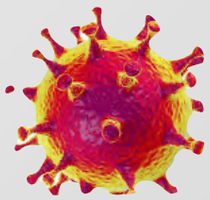
Sanctions in Austria

- End of February: do not go to the doctor if you have symptoms, call 1450 instead
- 10.03.: constraints in tourism traffic
- 11.03.: entry to Austria only with attest, cancellation of events
- 13.03.: parts of Tyrol in quarantine
- 14.03. Heiligenblut in quarantine



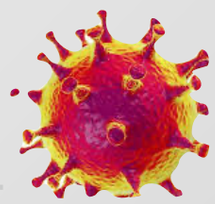
Sanctions in Austria

- 16.03.: closure of universities and upper classes, closure of skiing areas, closure of shops
- 17.03.: postponement of „Zentralmatura“, closure of restaurants
- 18.03.: closure of lower classes and „Kindergärten“, parts of Salzburg in quarantine
- 19.03.: Tyrol as a whole in quarantine
- 20.03.: closure of rehab centers, parks and sports fields
- 06.04.: duty of wearing a mask



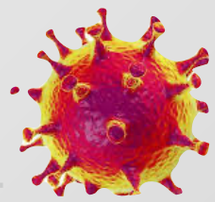
R-Code - Infections Austria

```
start <- as.POSIXct('2020-02-26 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-01 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 36) # dates on axes
y <- infections
df <- data.frame(x, y) # save in a data-frame

png(„infAT.png") # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l", main="Infections from 26.02 to 01.04 in Austria",
xlab="", ylab=" total number of infections“) # create plot1
axis.POSIXct(1, at = seq(start, end, by = '1 days’)) # dates on axes
dev.off()
```

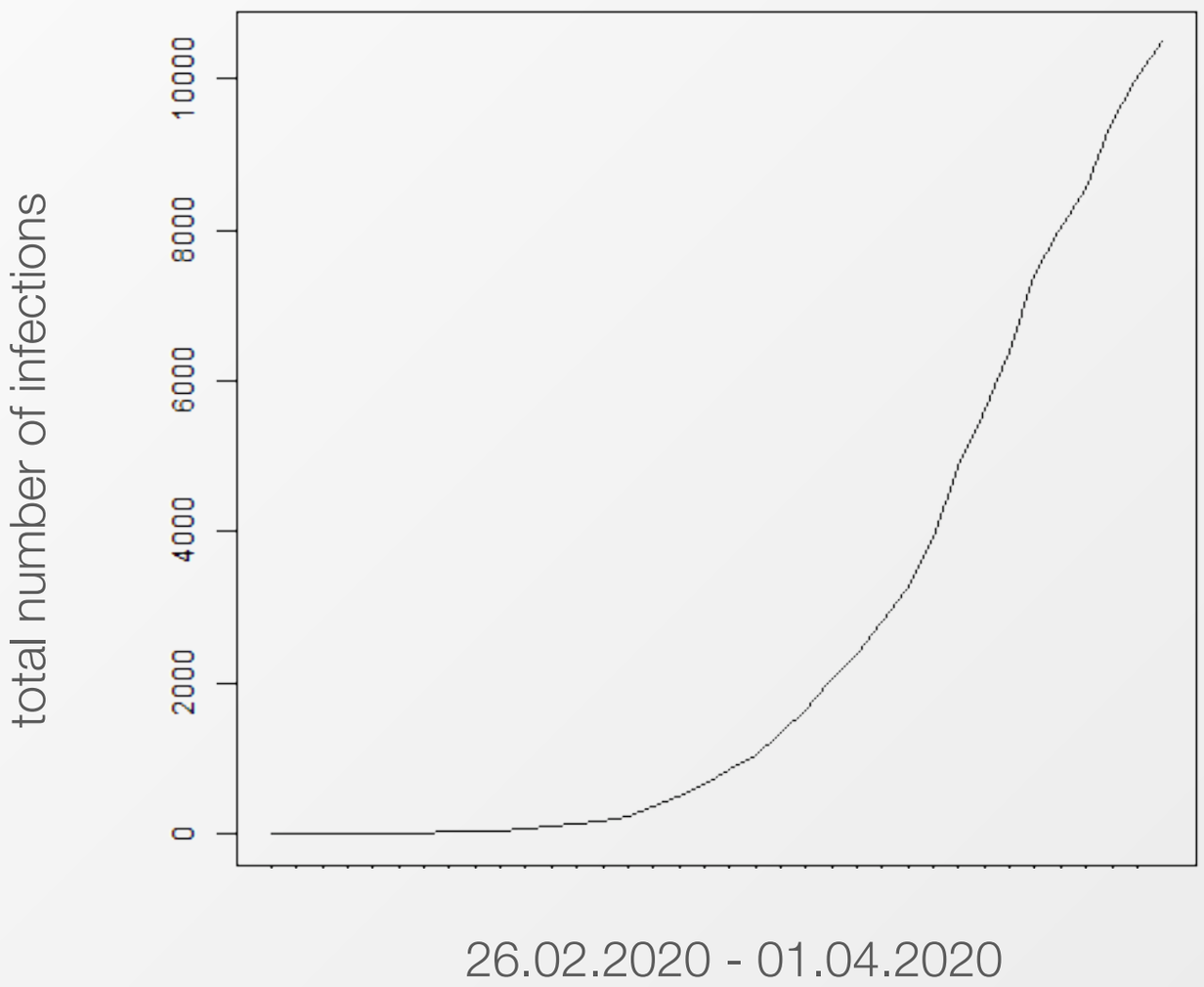


R-Code - Infections Provinces

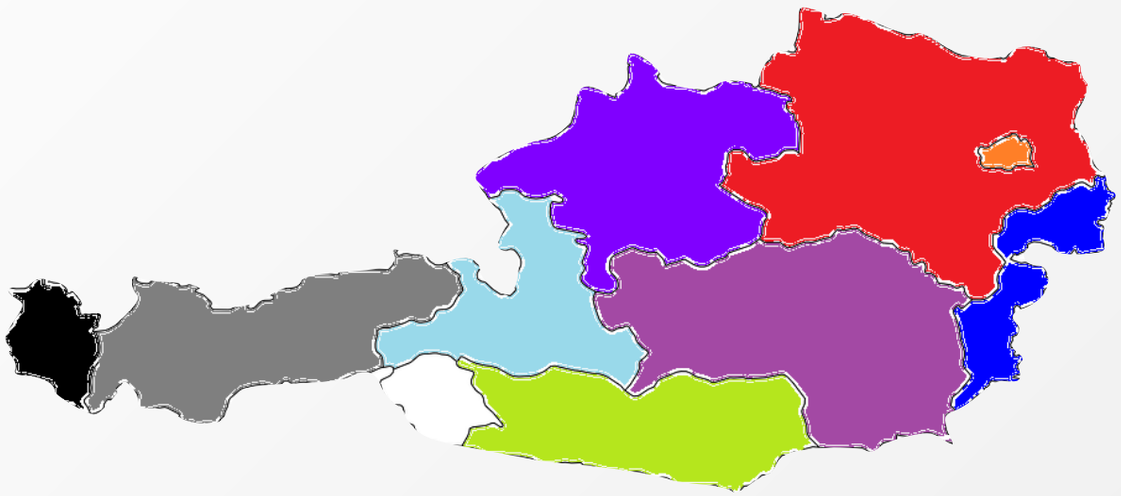
```
start <- as.POSIXct('2020-02-26 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-01 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 36) # dates on axes
y <- infectionsB
df <- data.frame(x, y) # save in a data-frame

png(„infBund.png")  # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', col="blue", type="l", main="Infections from 26.02 to 01.04 in
the 9 provinces of Austria", xlab="", ylab=" total number of infections", ylim=c(0,2500))
axis.POSIXct(1, at = seq(start, end, by = '1 days’)) # dates on axes
par(new=TRUE) # combines plots in one plot
plot(days, infectionsK, col="green", type="l", xlab="", ylab="", yaxt="n", xaxt="n",
ylim=c(0,2500)) # create plot2
par(new=TRUE)
…
dev.off()
```

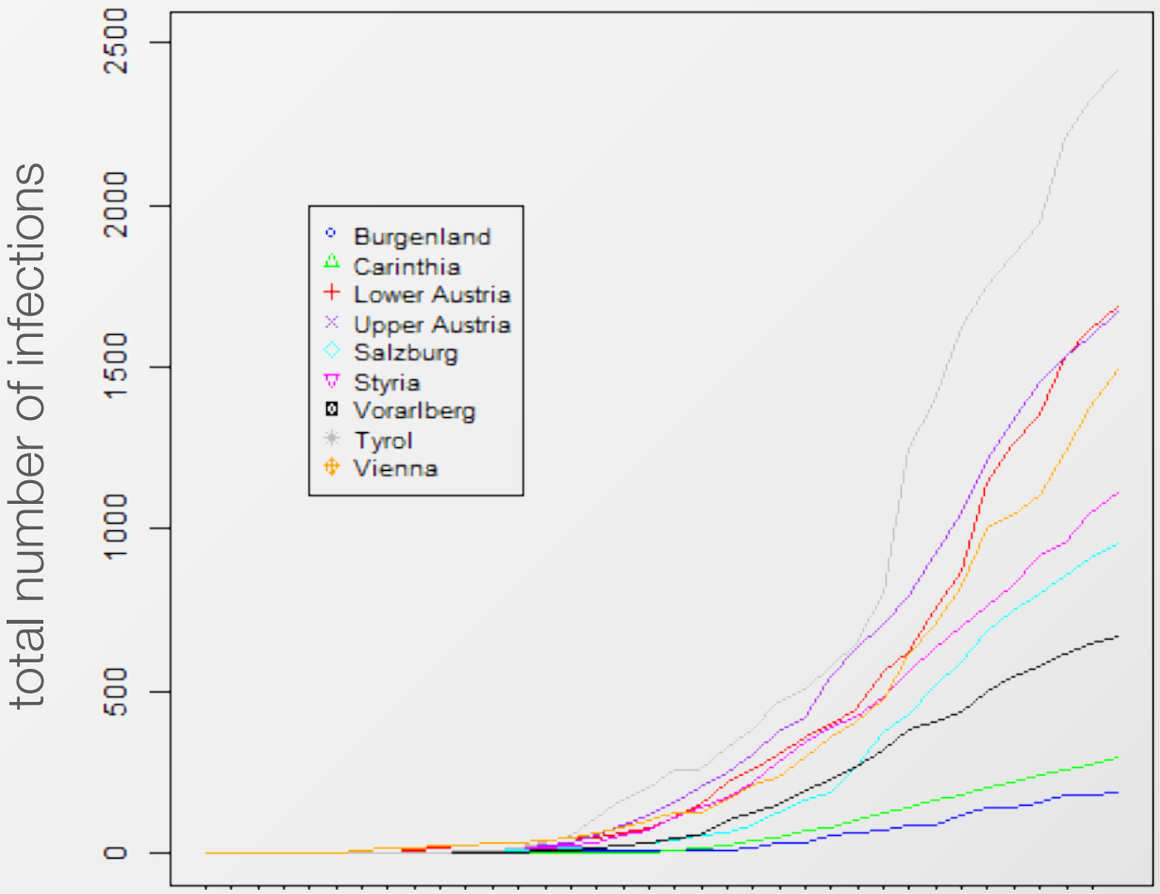


Plot - Infections Austria



Plot - Infections Provinces

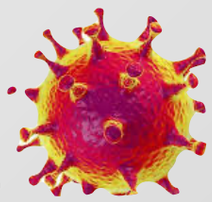




26.02.2020 - 01.04.2020

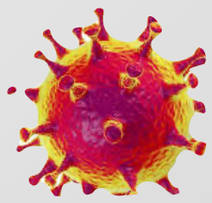
R-Code - Deaths Austria

```
start <- as.POSIXct(‚2020-02-26 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-01 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 36) # dates on axes
y <- deaths
df <- data.frame(x, y) # save in a data-frame

png(„deaths.png“) # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l",main="Deaths from 26.02 to 01.04 in Austria",
xlab="", ylab=" total number of deaths“) # create plot1
axis.POSIXct(1, at = seq(start, end, by = '1 days’)) # dates on axes
dev.off()
```

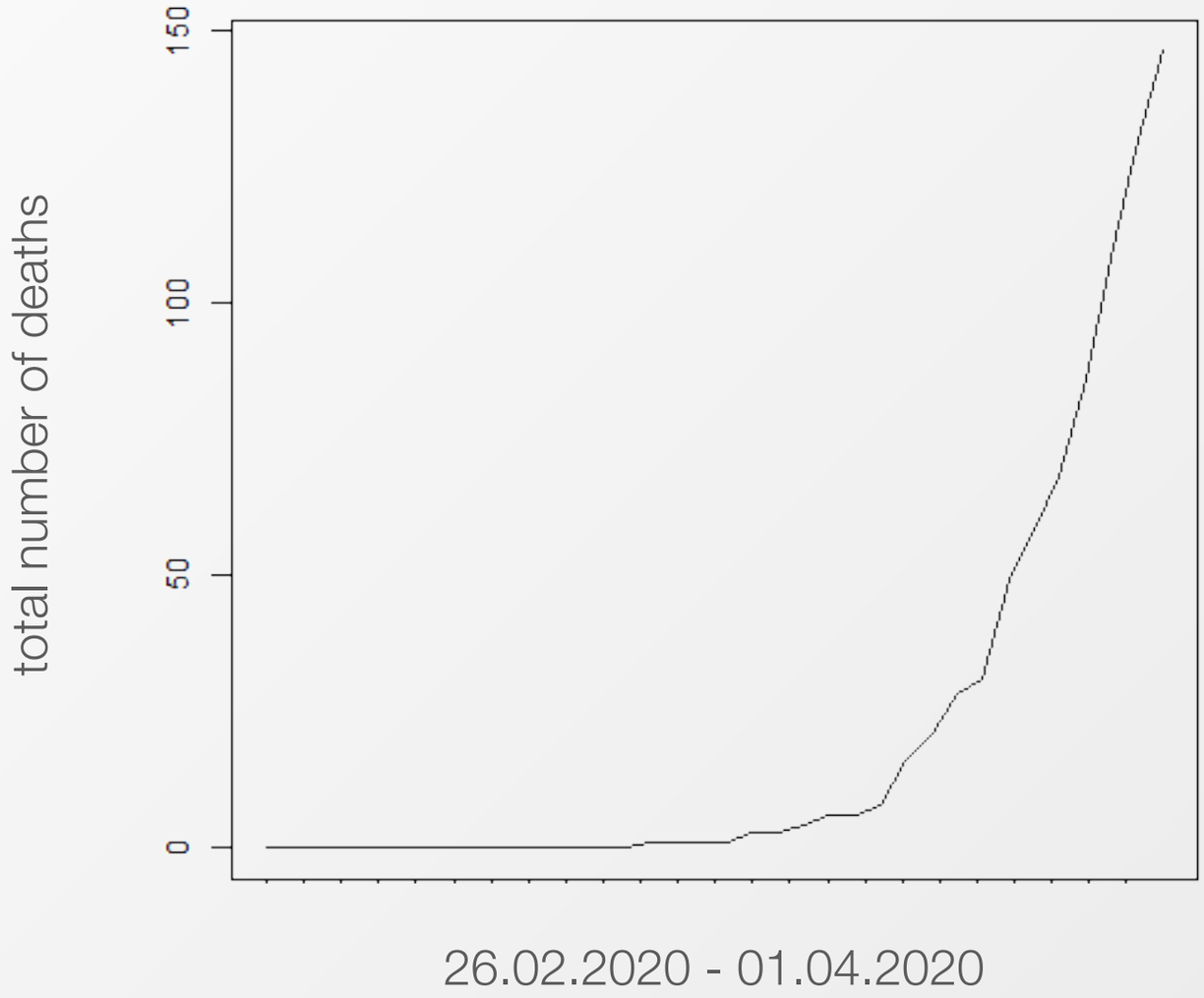


R-Code - Deaths Provinces

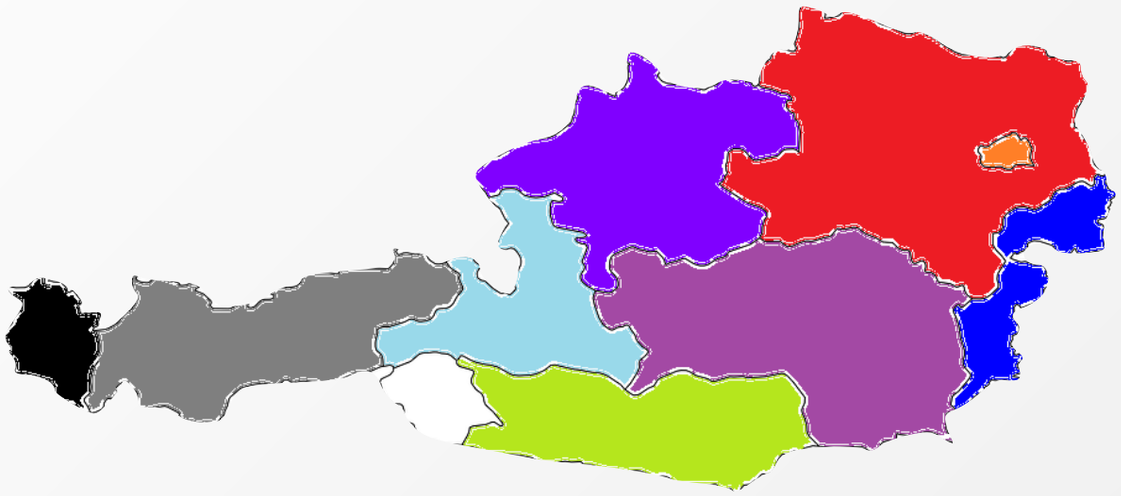
```
start <- as.POSIXct('2020-03-08 0:00:00') # dates on axes
end <- as.POSIXct('2020-04-01 0:00:00') # dates on axes
x <- seq(start, end, length.out = 25) # dates on axes
y <- deathsB
df <- data.frame(x, y) # save in a data-frame

png(„deathsBund.png") # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', col="blue", type="l",main="Deaths from 08.03 to 01.04 in the
9 provinces of Austria", xlab="", ylab=" total number of deaths", ylim=c(0,35)) # create plot2
axis.POSIXct(1, at = seq(start, end, by = '1 days')) # dates on axes
par(new=TRUE)
plot(day, deathsK, col="green", type="l", xlab="", ylab="", yaxt="n", xaxt="n", ylim=c(0,35))
par(new=TRUE) # combines plots in one plot
….
dev.off()
```

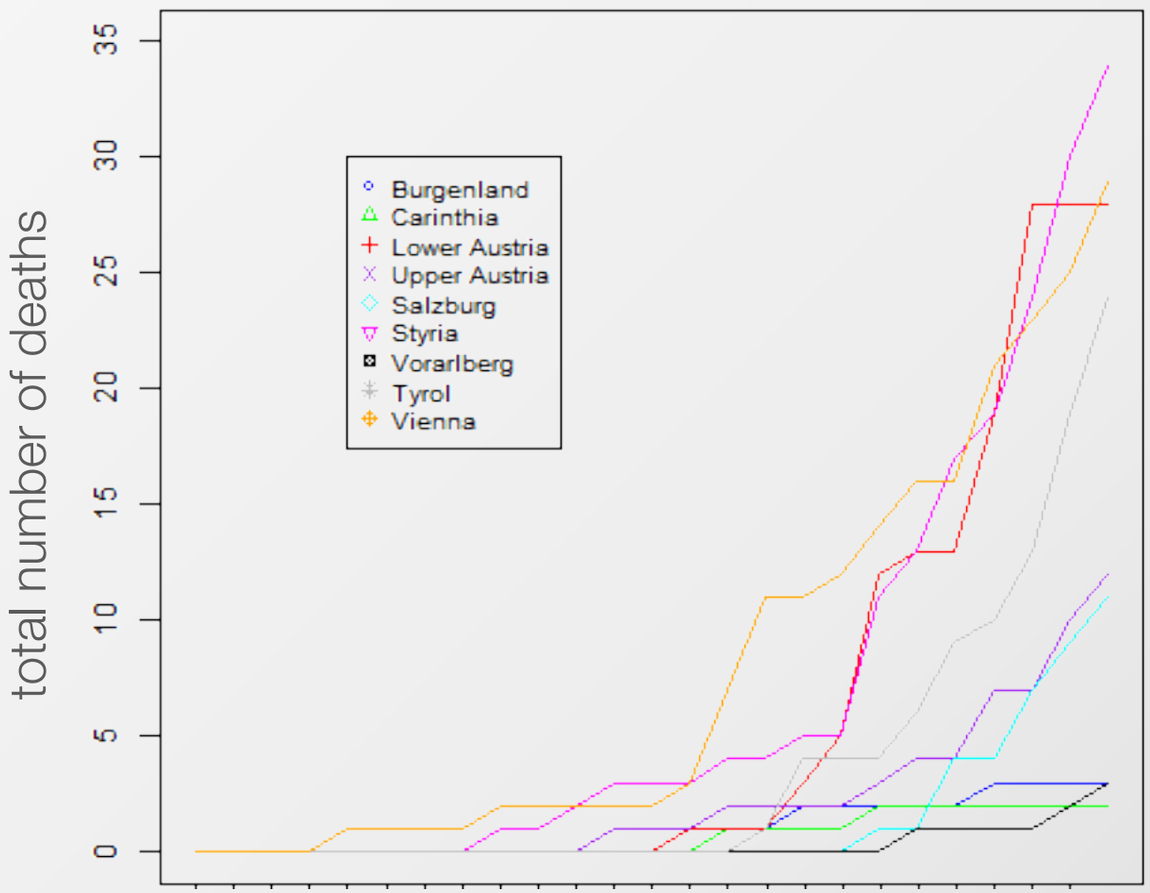


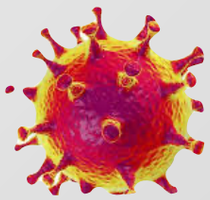
Plot - Deaths Austria



Plot - Deaths Provinces

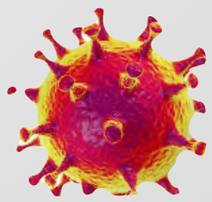




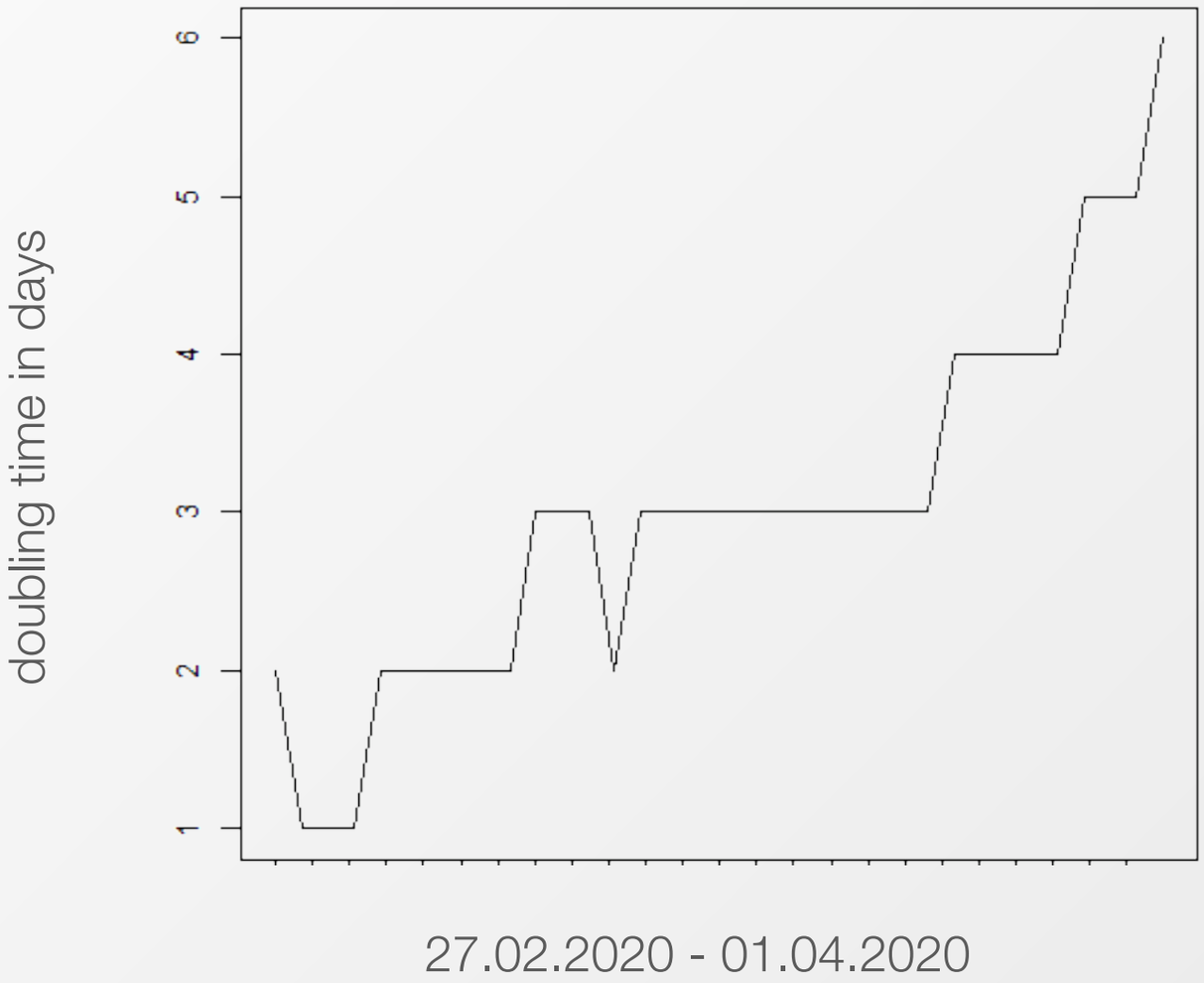


R-Code - Doubling time

```
start <- as.POSIXct(‚2020-02-27 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-01 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 35) # dates on axes
y <- doublingtime
df <- data.frame(x, y) # save in a data-frame

png(„doublingtime.png") # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l",main="Development Doubling time from 27.02 to
01.04 in Austria", xlab="", ylab="doublingtime in days“) # create plot
axis.POSIXct(1, at = seq(start, end, by = '1 days’)) # dates on axes
dev.off()
```

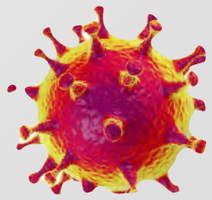


Plot - Doubling time

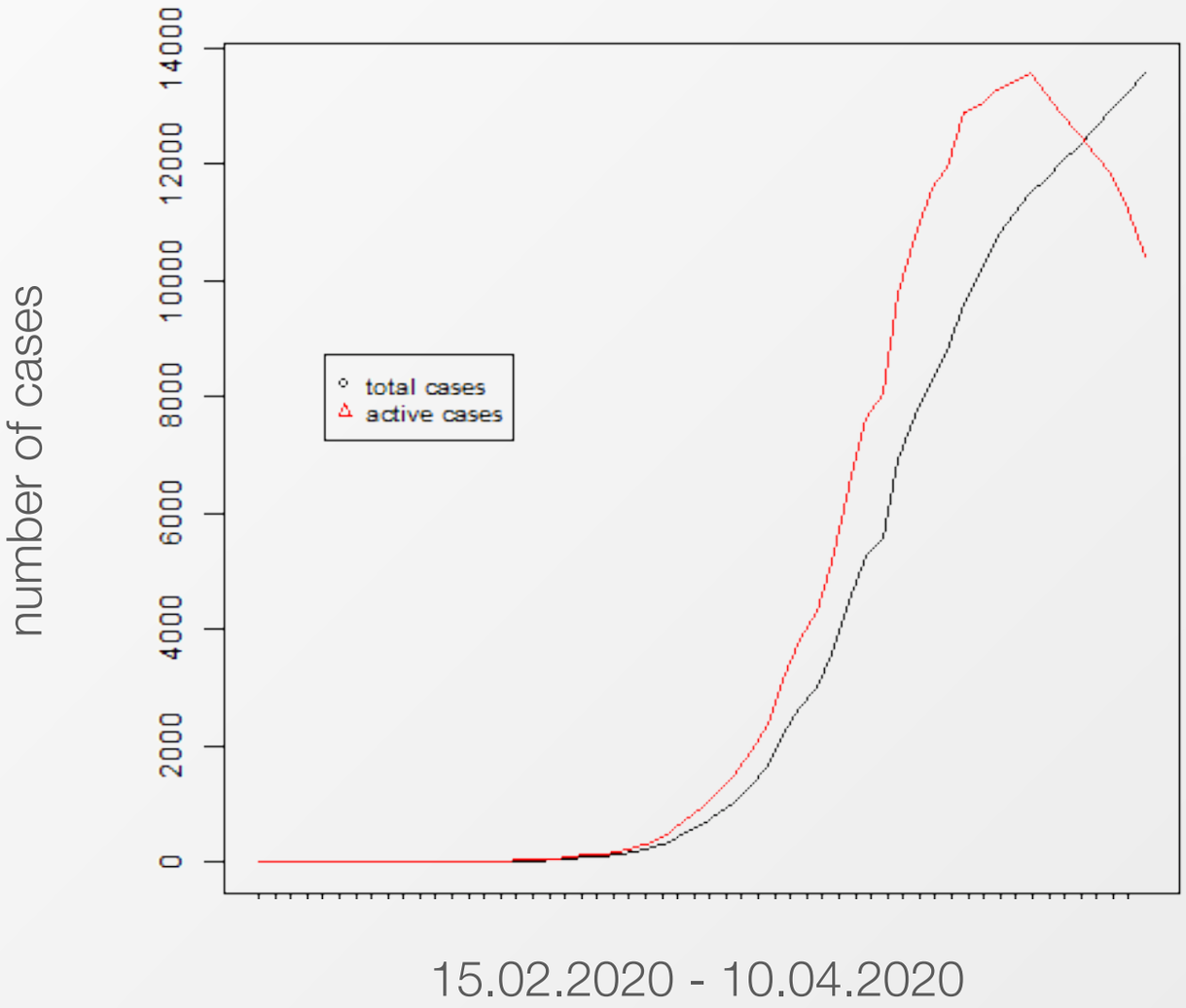


Active cases vs. total cases in Austria

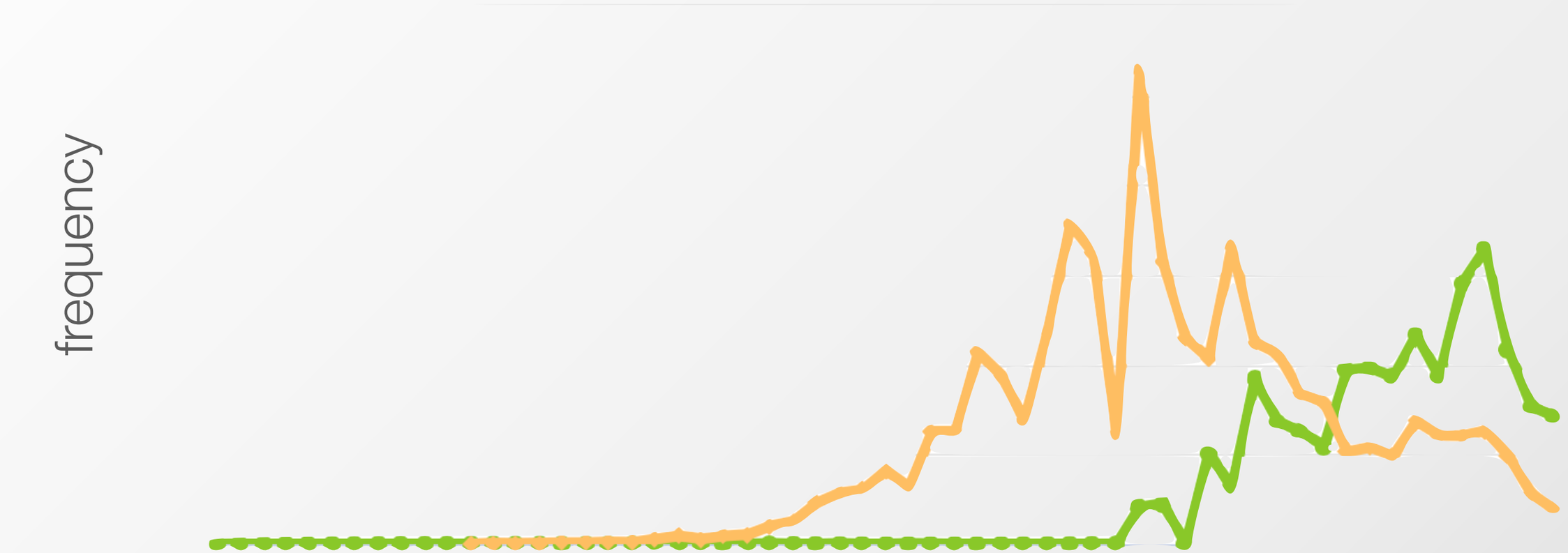
```
start <- as.POSIXct(‚2020-02-15 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-10 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 55) # dates on axes
y <- total
df <- data.frame(x, y) # save in a data-frame



png(„total.png") # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l", main="Active cases vs. total cases from 15.02 to
10.04 in Austria", xlab="", ylab="number of cases“) # create plot
axis.POSIXct(1, at = seq(start, end, by = '1 days’)) # dates on axes
dev.off()
par(new=TRUE)
plot(day, active, col="red", type="l", xlab="", ylab="", yaxt="n", xaxt="n")
legend(x=5, y=6000, c("total cases", "active cases"), cex=.8, col=c("black","red"),
pch=c(1:9))
dev.off()
```



Active cases vs. total cases in Austria

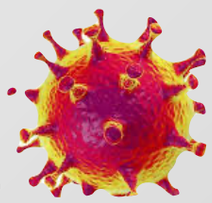


Newly Infected vs. Newly Recovered in Austria

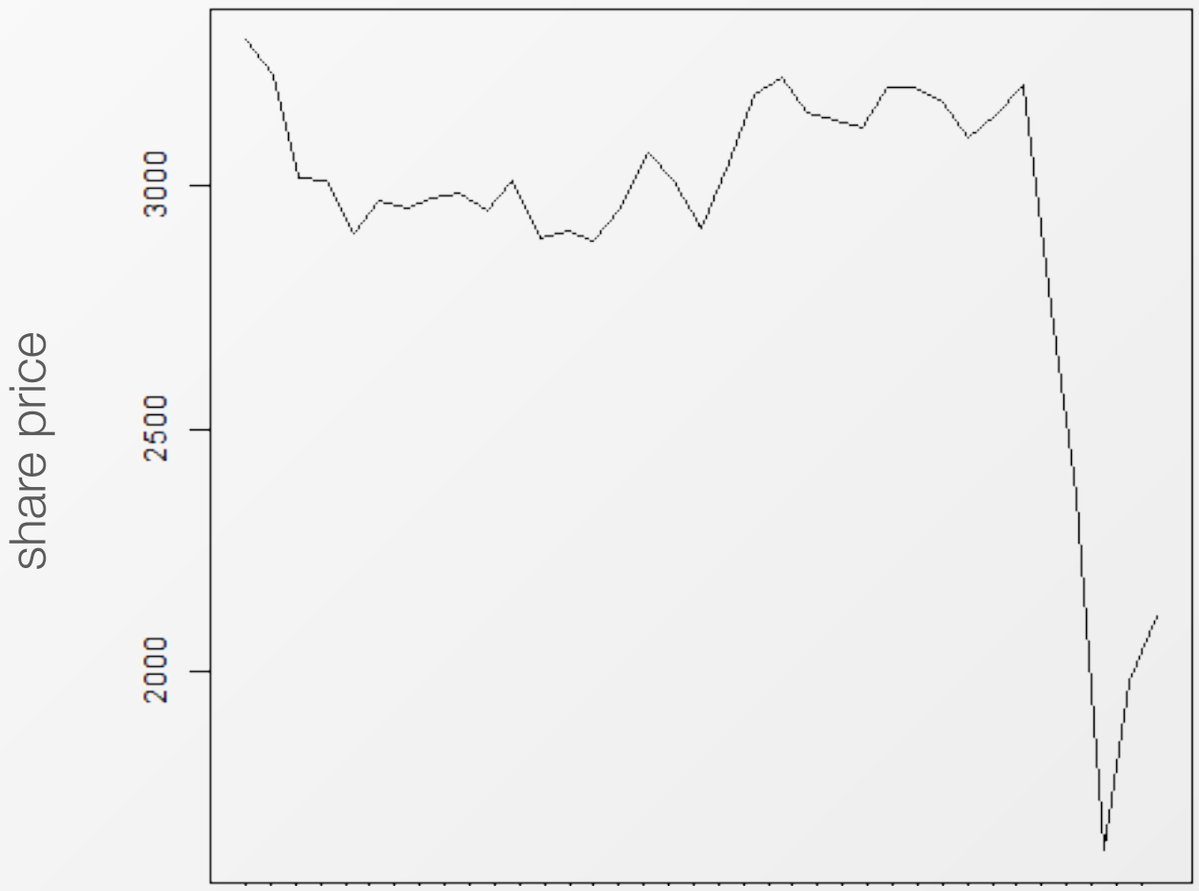


R-Code - ATX

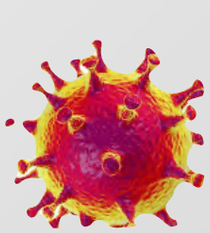
```
start <- as.POSIXct('2019-04-09 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-09 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 35) # dates on axes
y <- atx
df <- data.frame(x, y) # save in a data-frame

png(„atx.png")  # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l", main="ATX from 9.4.2019 to 9.4.2020", xlab="1
year in steps of 10 days", ylab="Share Price“) # create plot
axis.POSIXct(1, at = seq(start, end, by = '10 days')) # dates on axes
dev.off()
```



Plot - ATX

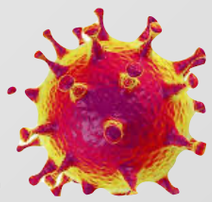


09.04.2019 - 09.04.2020 in steps of 10 days

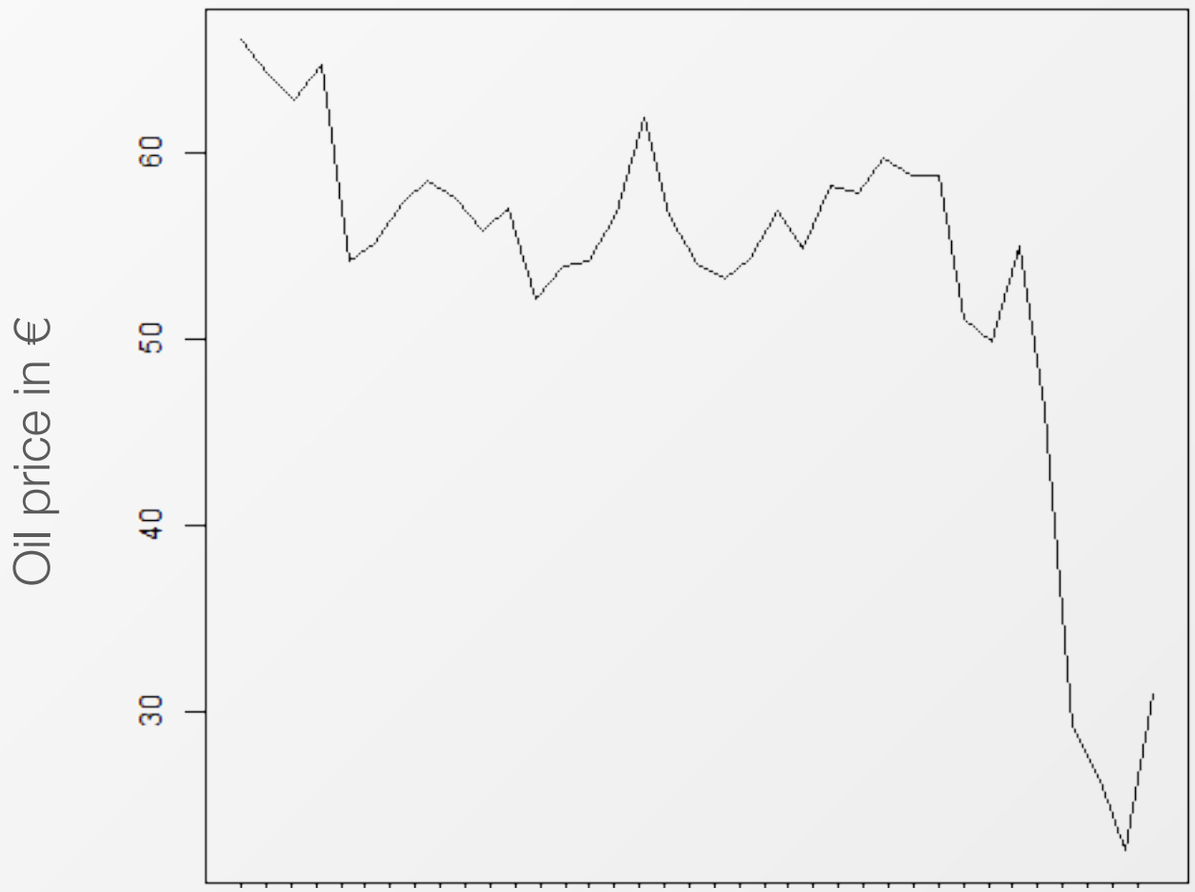


R-Code - Oil price in Austria

```
start <- as.POSIXct('2019-04-09 0:00:00’) # dates on axes
end <- as.POSIXct('2020-04-09 0:00:00’) # dates on axes
x <- seq(start, end, length.out = 35) # dates on axes
y <- oil
df <- data.frame(x, y) # save in a data-frame

png(„oil.png") # save plot as png
par(bg=NA) # transparent background
plot(y ~ x, data = df, xaxt = 'n', type="l",main="Development Oil price from 9.4.2019 to
9.4.2020 in Austria", xlab="1 year in steps of 10 days", ylab="Oil Price in €“)
# create plot
axis.POSIXct(1, at = seq(start, end, by = '10 days’)) # dates on axes
dev.off()
```



Plot - Oil price in Austria



09.04.2019 - 09.04.2020 in steps of 10 days

Sources

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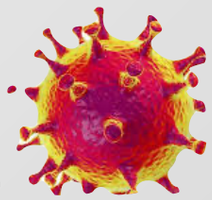
https://www.derstandard.at/story/2000115514963/preiskrieg-und-abschwungsorgen-wegen-corona-oelpreis-bricht-um-30-prozent

https://www.heizoel24.at/charts/rohoel



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