

Gráfico Tema 3

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Librerías Cargamos las librerías que vamos a utilizar.

```
library(ggplot2)
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
## v dplyr      1.1.4      v readr      2.1.5
## v forcats    1.0.0      v stringr   1.5.1
## v lubridate  1.9.3      v tibble    3.2.1
## v purrr      1.0.2      v tidyr     1.3.1
## -- Conflicts ----- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
library(plotly)
```

```
##
## Attaching package: 'plotly'
##
## The following object is masked from 'package:ggplot2':
##
##   last_plot
##
## The following object is masked from 'package:stats':
##
##   filter
##
## The following object is masked from 'package:graphics':
##
##   layout
```

```
library(dplyr)
library(showtext)
```

```
## Warning: package 'showtext' was built under R version 4.3.3
```

```
## Loading required package: sysfonts
```

```
## Warning: package 'sysfonts' was built under R version 4.3.3
```

```
## Loading required package: showtextdb
```

Importación de datos Cargamos en una variable los datos de la web.

```
#Nos aseguramos de que el environment esté limpio
rm(list = ls())
data <- read.csv("https://covid.ourworldindata.org/data/owid-covid-data.csv")
```

Modificación de variables Cambiamos el formato de las variables para poder manejarlas de mejor manera.

```
#Ponemos el formato de fecha adecuado
data$date <- as.Date(data$date, format = "%Y-%m-%d")

#Creamos un vector con los países que queremos representar
países <- c("Spain", "Italy", "Germany", "Canada", "United States",
            "Japan", "United Kingdom", "France")

#Creamos un nuevo df con las variables que necesitamos para el gráfico
países <- data %>%
  filter(location %in% países) %>%
  group_by(location, date) %>%
  summarise(muertes = new_deaths_smoothed_per_million)
```

```
## 'summarise()' has grouped output by 'location'. You can override using the
## '.groups' argument.
```

```
#Una df distinta para después agregar el grosor de línea
Spain <- data %>%
  filter(location == "Spain") %>%
  group_by(location, date) %>%
  summarise(muertes = new_deaths_smoothed_per_million)
```

```
## 'summarise()' has grouped output by 'location'. You can override using the
## '.groups' argument.
```

Gráfico Creamos el gráfico con la librería 'ggplot2'

```
#Primero creamos un vector con los colores que vamos a utilizar
colores <- c("Spain"="red2", "Italy" = "cyan4",
            "Germany" = "palegreen4",
            "Canada" = "orangered4", "Japan" = "skyblue4",
            "United Kingdom" = "maroon", "France" = "sienna",
            "United States" = "darkorchid4")

#Ponemos las fuentes de texto que vamos a utilizar
## Loading Google fonts (https://fonts.google.com/)
font_add_google("Roboto", "Roboto")
font_add_google("EB Garamond", "garam")

showtext_auto()
```

```

#Creamos el gráfico
graf <- ggplot(países, aes(x = date, y = muertes, color = location)) +
  geom_line() + geom_line(mapping = aes(x = date, y = muertes),
                                     colour = "red2", data = Spain, linewidth = 1 ) +
  scale_colour_manual(values = colores) +
  labs(title = "Grupo T\nDaily new confirmed COVID-19 deaths per million people",
        subtitle = "7-day rolling average. For some countries the number of confirmed deaths is much lower than",
        x = NULL, y = NULL,
        caption = "Source: Johns Hopkins University CSSE COVID-19 Data") +
  scale_y_continuous(breaks = seq(0,20,2)) +
  theme(plot.title = element_text(hjust = 0,
                                   size = 15,
                                   colour = "#222222",
                                   family = "gara"),
        plot.subtitle = element_text(hjust = 0,
                                      size = 6.5,
                                      colour = "#757575",
                                      family = "Roboto"),
        plot.caption.position = "plot",
        plot.caption = element_text(hjust = -0.01,
                                      colour = "#757575",
                                      family = "gara",
                                      size = 6),
        panel.grid.major.y = element_line(colour = "grey", linetype = 2),
        panel.background = element_blank())
graf

```

```

## Warning: Removed 759 rows containing missing values or values outside the scale range
## ('geom_line()').

```

```

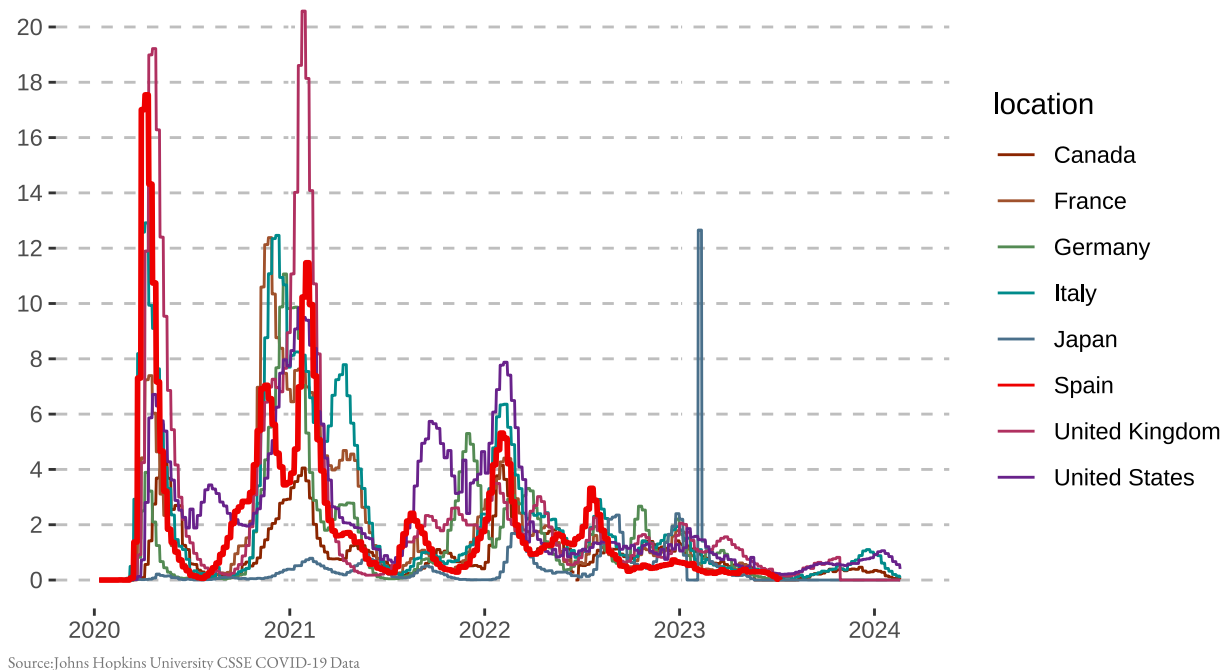
## Warning: Removed 229 rows containing missing values or values outside the scale range
## ('geom_line()').

```

Grupo T

Daily new confirmed COVID-19 deaths per million people

7-day rolling average. For some countries the number of confirmed deaths is much lower than the true number of deaths. This is because of limited testing and challenges in the attribution of the cause of death.



```
ggsave("Grafico.pdf", plot = graf)
```

```
## Saving 6.5 x 4.5 in image
```

```
## Warning: Removed 759 rows containing missing values or values outside the scale range
## ('geom_line()').
## Removed 229 rows containing missing values or values outside the scale range
## ('geom_line()').
```

Gráfico interactivo

```
“{r Grafico interactivo} grafite <- ggplotly(graf) grafite “
```