

THE *Art* OF
Creative
DATAVIZ DESIGN















“I want to **show off** to my colleagues”

“I want something **cool**”

“I want something **intuitive**”

“I want **showcase** what is possible”

“I want something **interactive**”

“I want something that looks **beautiful**”

“I want to **tell a story**”



2

SKILLS

CREATE

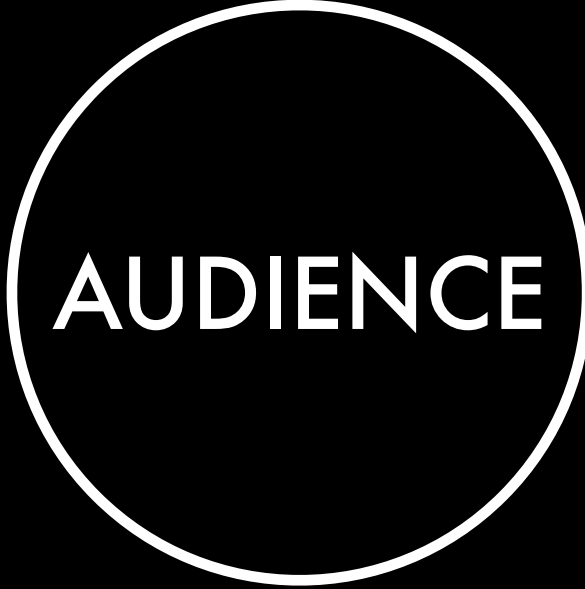
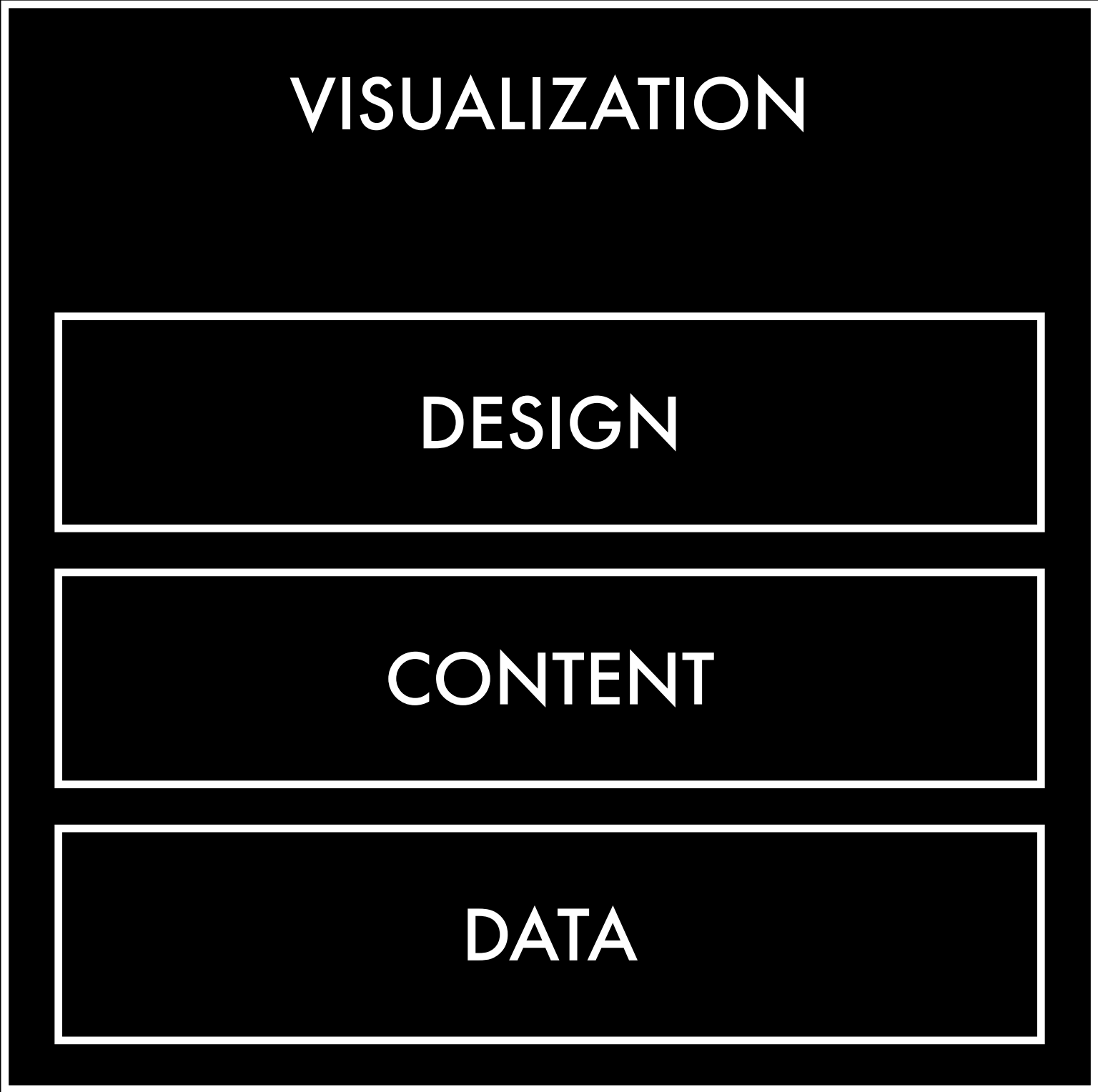
EVALUATE





3

AREAS





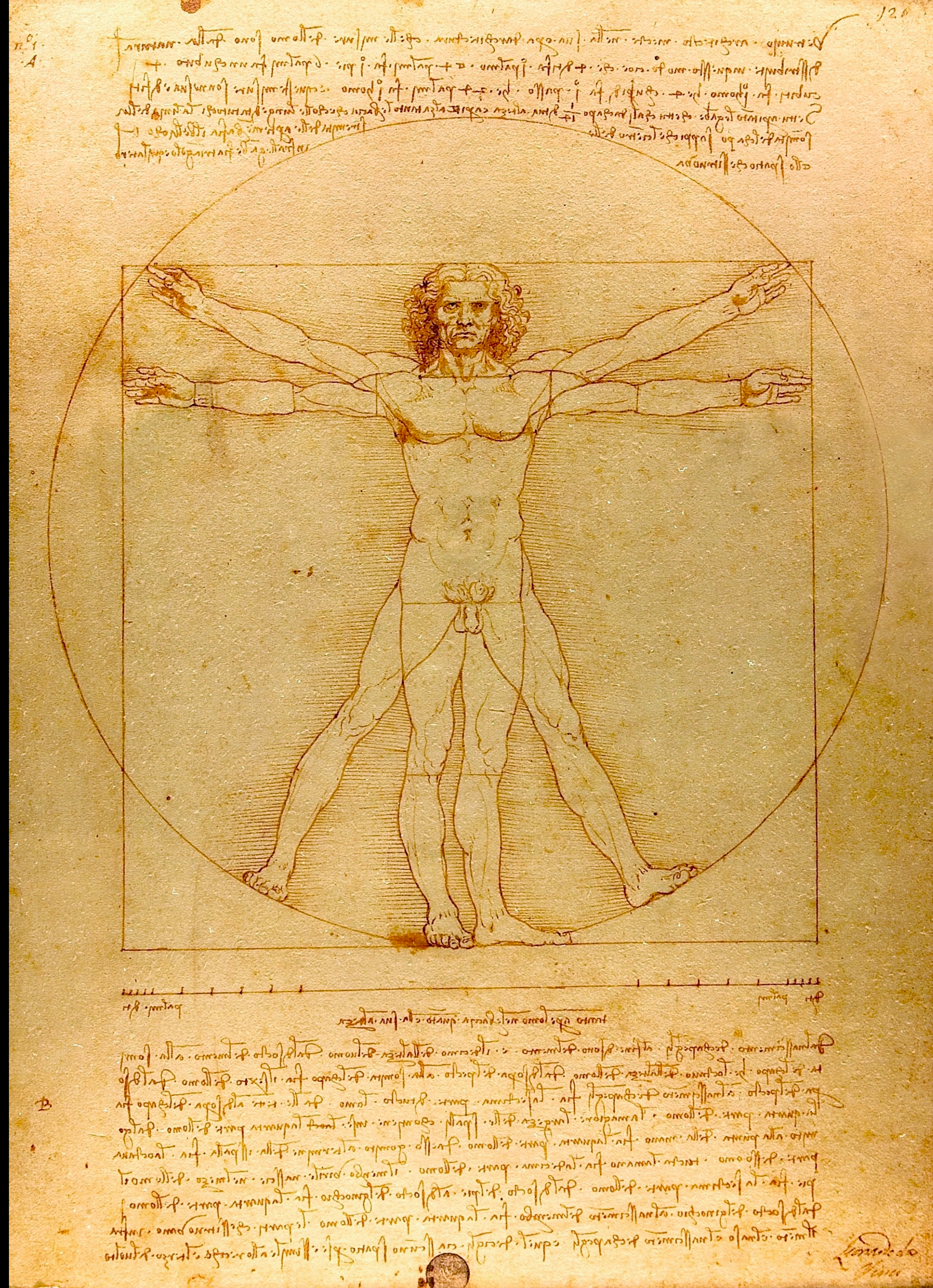
4

OBJECTIVES

























NOVELTY



AESTHETIC APPEAL



TAILORING & PERSONALIZATION

	Wheels/Ruedas Racing-Quattro	
	Color BASE LaVueltaRed	
	Color Mask 1 Type 1 Racormance-Light-Blue	
	Color Mask 1 Type 2 Purple	
	Color Mask 1 Type 3 Green	
	Color Mask 1 Type 4 Racormance Blue	
	Transmission Groupset / Grupo Transmision DURACE-Di2-9070	
	Stem/Potencia ARX+ ERGONOVA LTD	
	HandleBar Tape / Cinta Manillar BasaltFever	
	Serigraphy Logo / Serigrafia Logo Green	
	SeatPost Logo / Logo Tija FluorOrange	
	Serigraphy Letters / Serigrafia Letras DarkGrey	



CHALLENGE & GAME PLAY







Tweet



I hope it was not too hidden. In the context of the talk where the focus is co-designing data visualisations, beauty is so intertwined with the type of experience we are trying to build for our readers. (1)

9:32 PM · Jun 18, 2022 · Twitter Web App

1 Like



Reply



Beautiful data visualisations mean desirable visions and also useful tools that support clarity, engagement, decision making, awareness. In our experience, designing beautiful data visualisations in science, whether it be for raising awareness or for high level negotiations, (2)

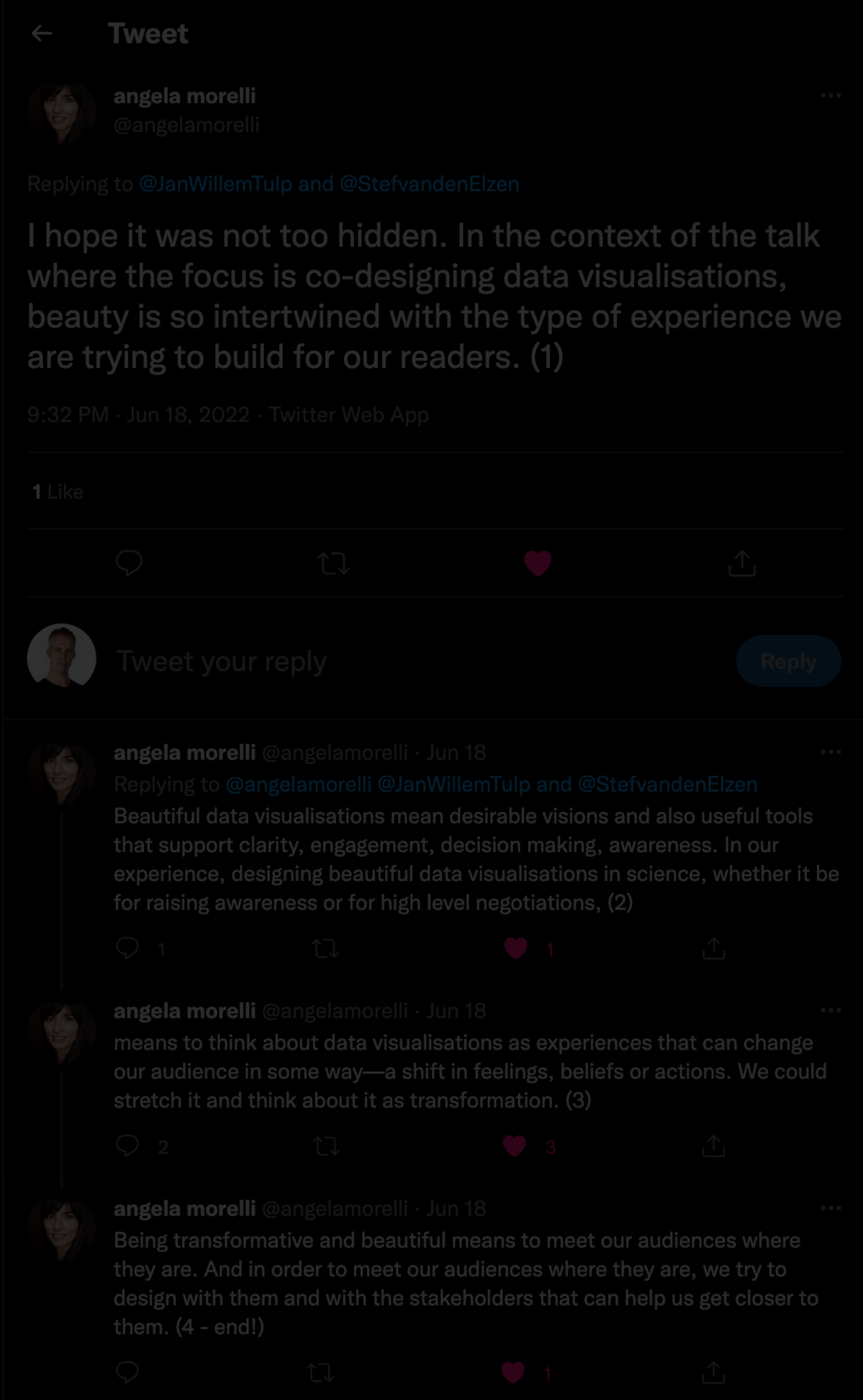


means to think about data visualisations as experiences that can change our audience in some way—a shift in feelings, beliefs or actions. We could stretch it and think about it as transformation. (3)



Being transformative and beautiful means to meet our audiences where they are. And in order to meet our audiences where they are, we try to design with them and with the stakeholders that can help us get closer to them. (4 - end!)





Beautiful data visualisations mean **desirable visions** and also **useful tools** that support **clarity, engagement, decision making, awareness.**

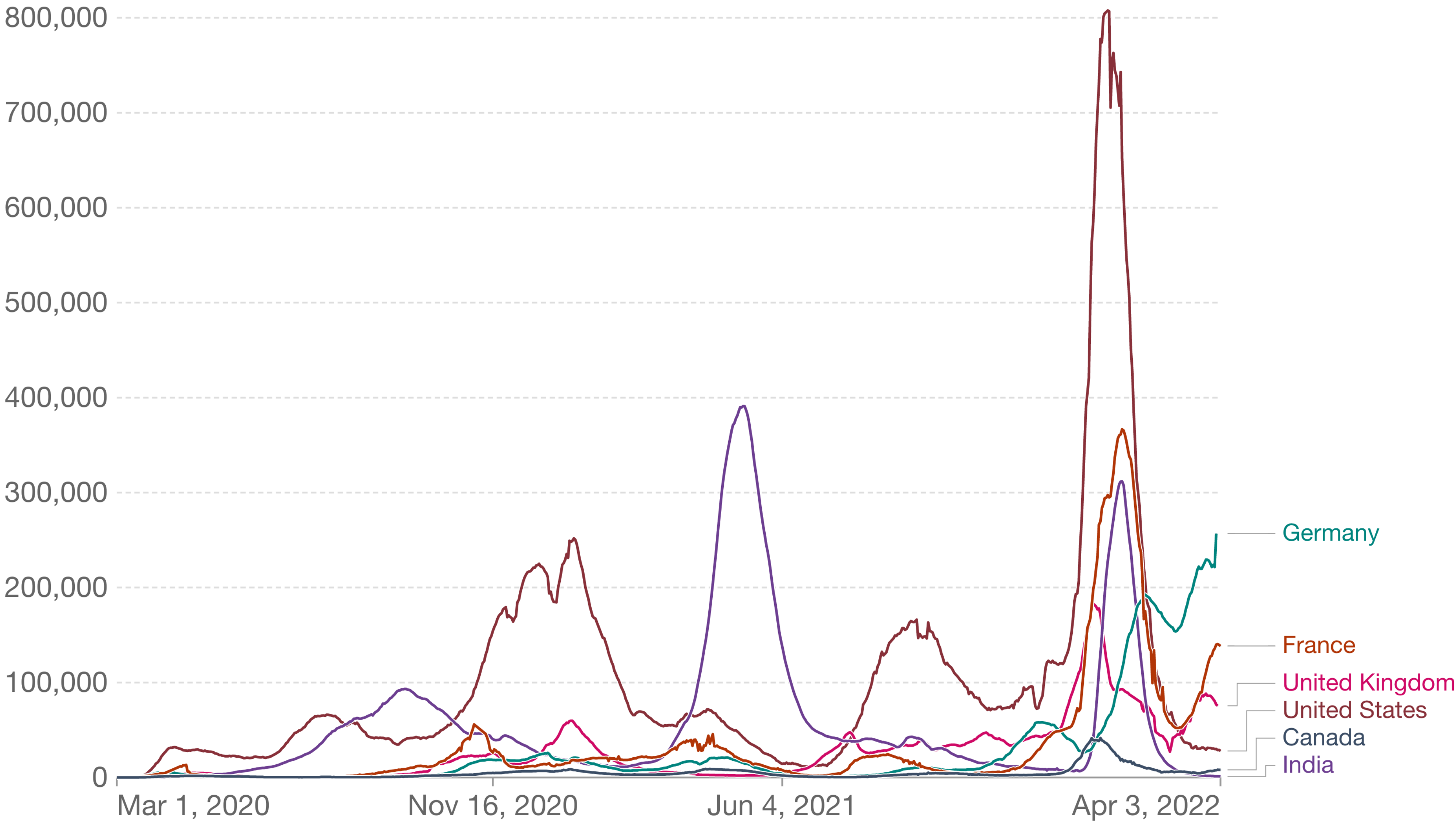
In our experience, designing beautiful data visualisations in science, whether it be for **raising awareness** or for **high level negotiations**, means to think about data visualisations as **experiences** that can **change our audience** in some way — a shift in **feelings, beliefs or actions.**



VIRUS DATA

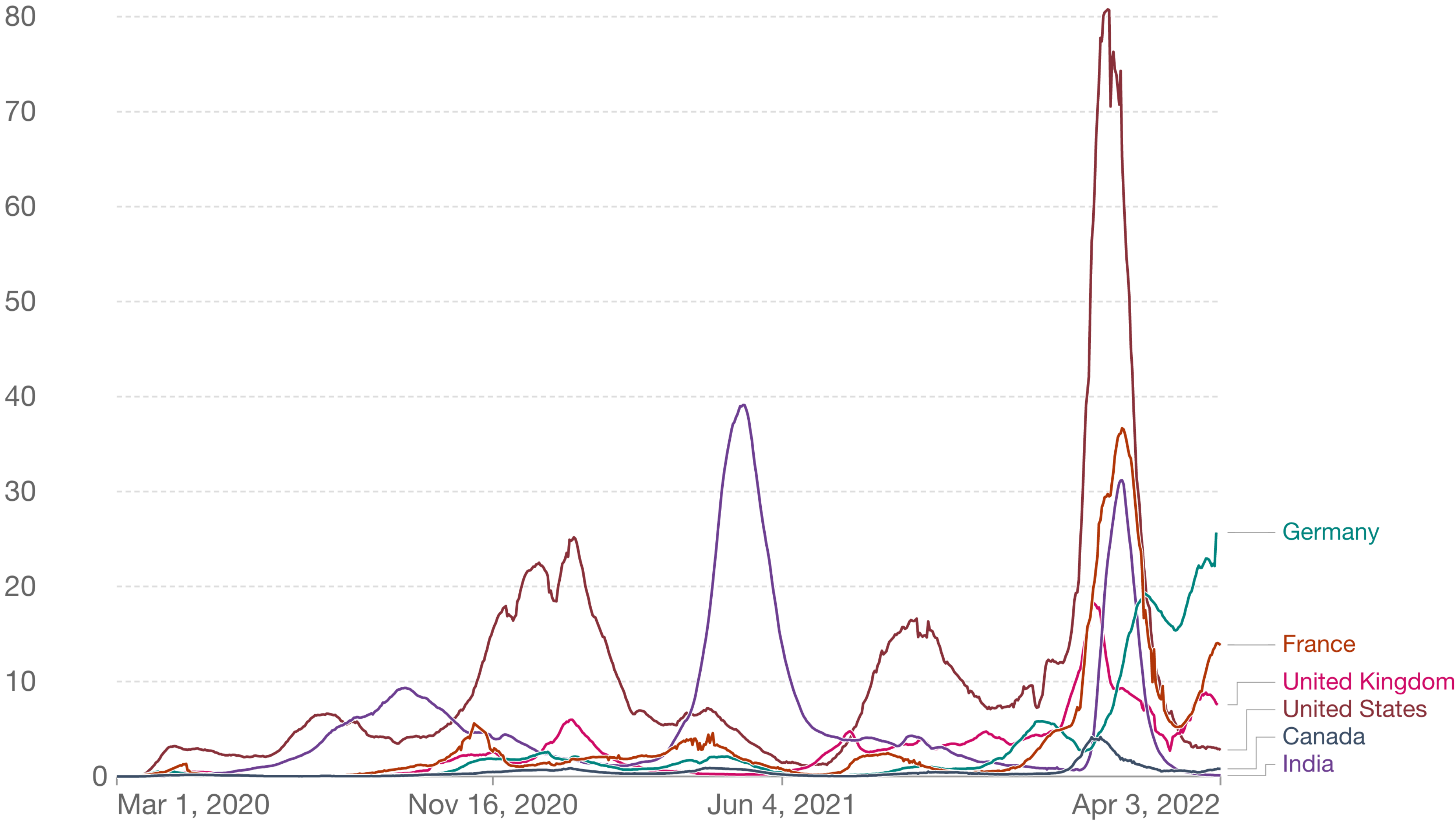
Daily new confirmed COVID-19 cases

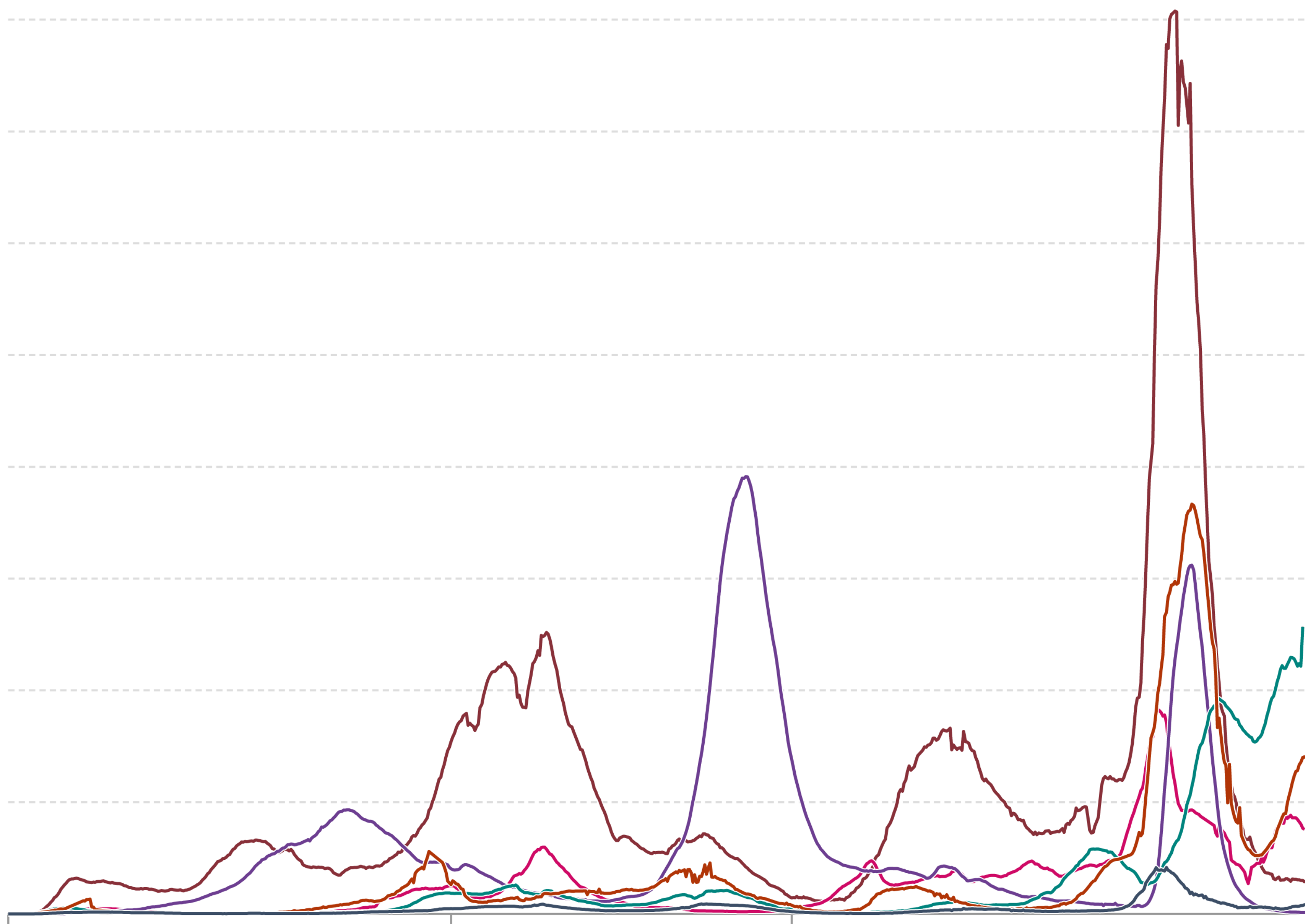
7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.



Daily new confirmed COVID-19 cases

7-day rolling average. Due to limited testing, the number of confirmed cases is lower than the true number of infections.





COVID-19 spreading rates

Get an intuitive ‘feel’ of new COVID-19 cases spreading rates. This simulation shows you the *average* rate of newly reported COVID-19 cases between 1 April 2022 and 7 April 2022 for each country.



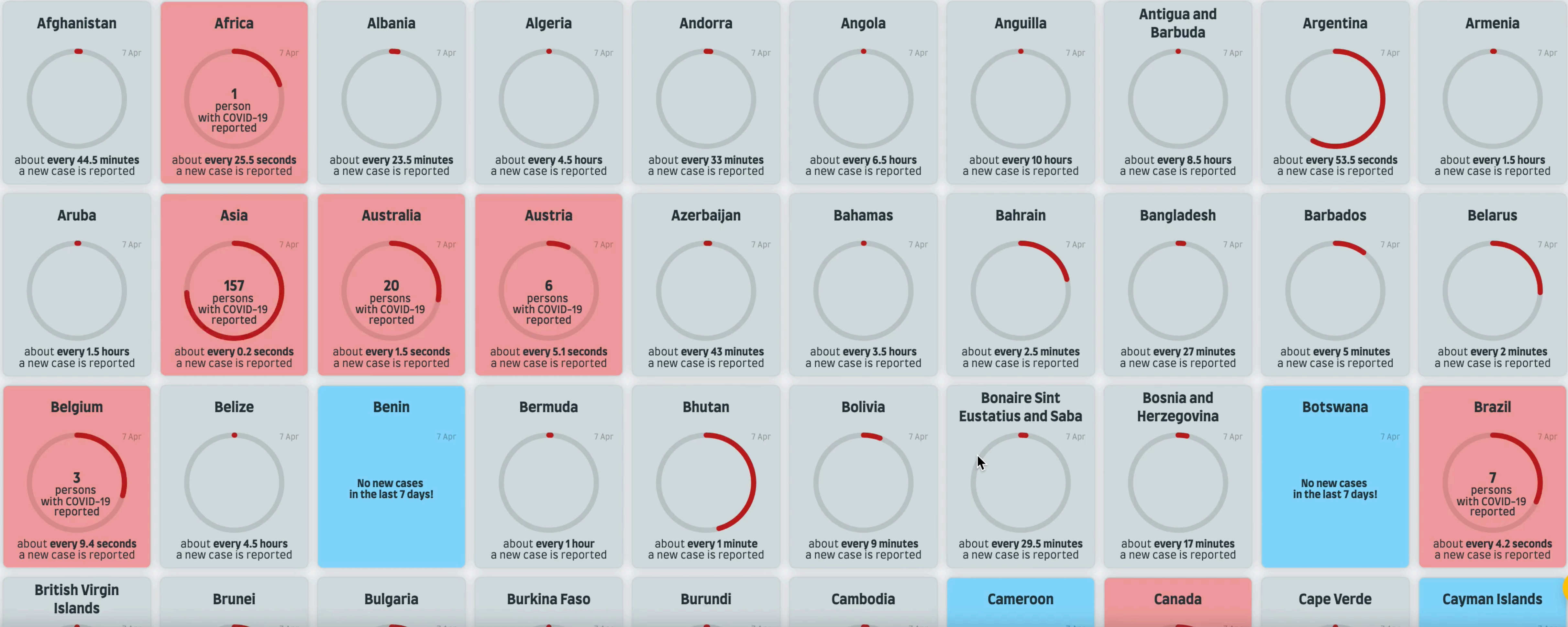
absolute per 1.000.000

the ‘actual’ rate of reported new cases for each country normalized, as if each country had a population of 1.000.000

total:
1344

1 person with COVID-19 reported in European Union

Since the moment you started viewing this page...

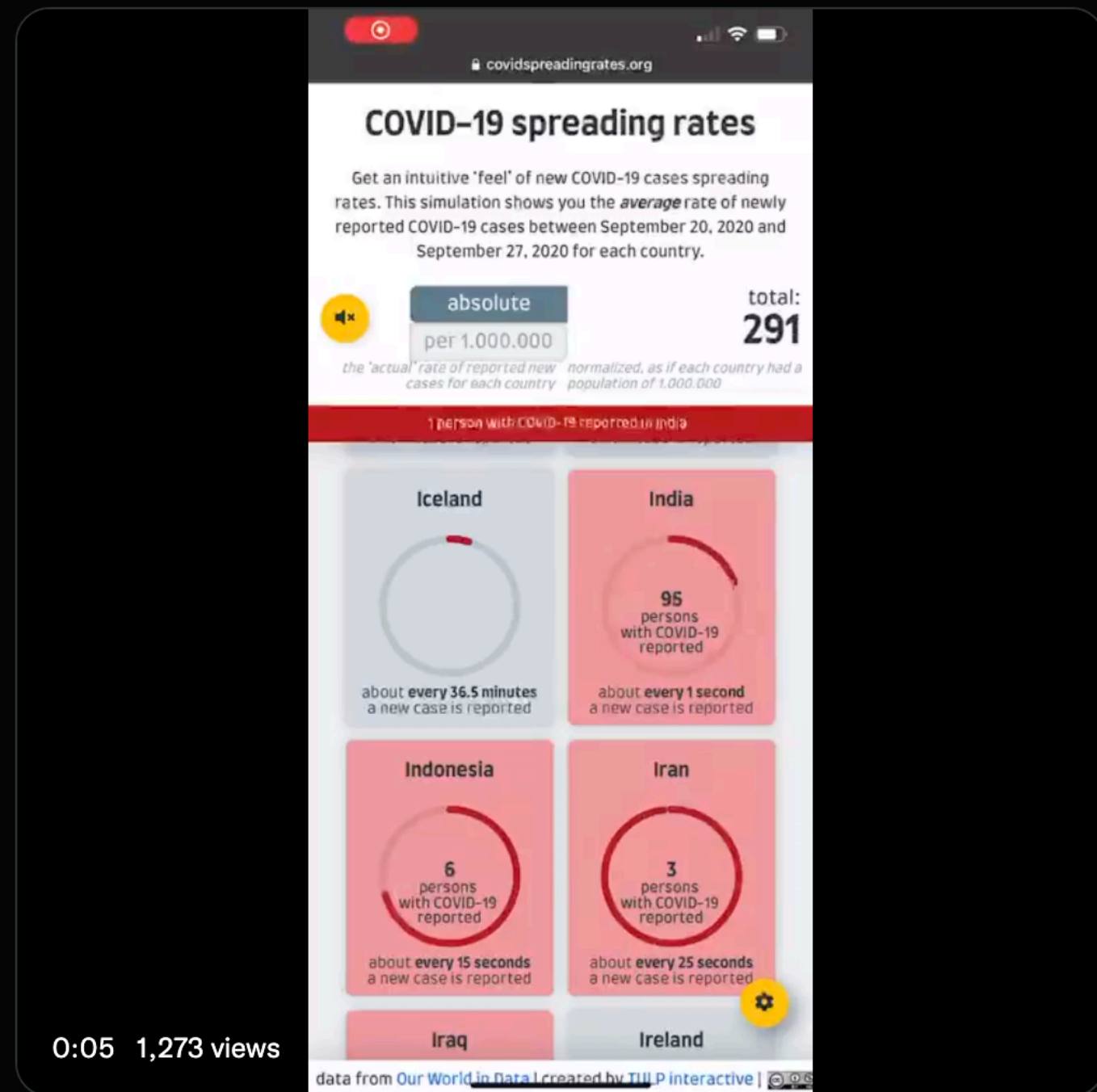




Chris Messina @chrismessina · Sep 28, 2020
This is compelling and... terrifying.

covidspreadingrates.org

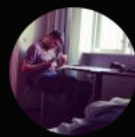
#COVID19 #coronavirus



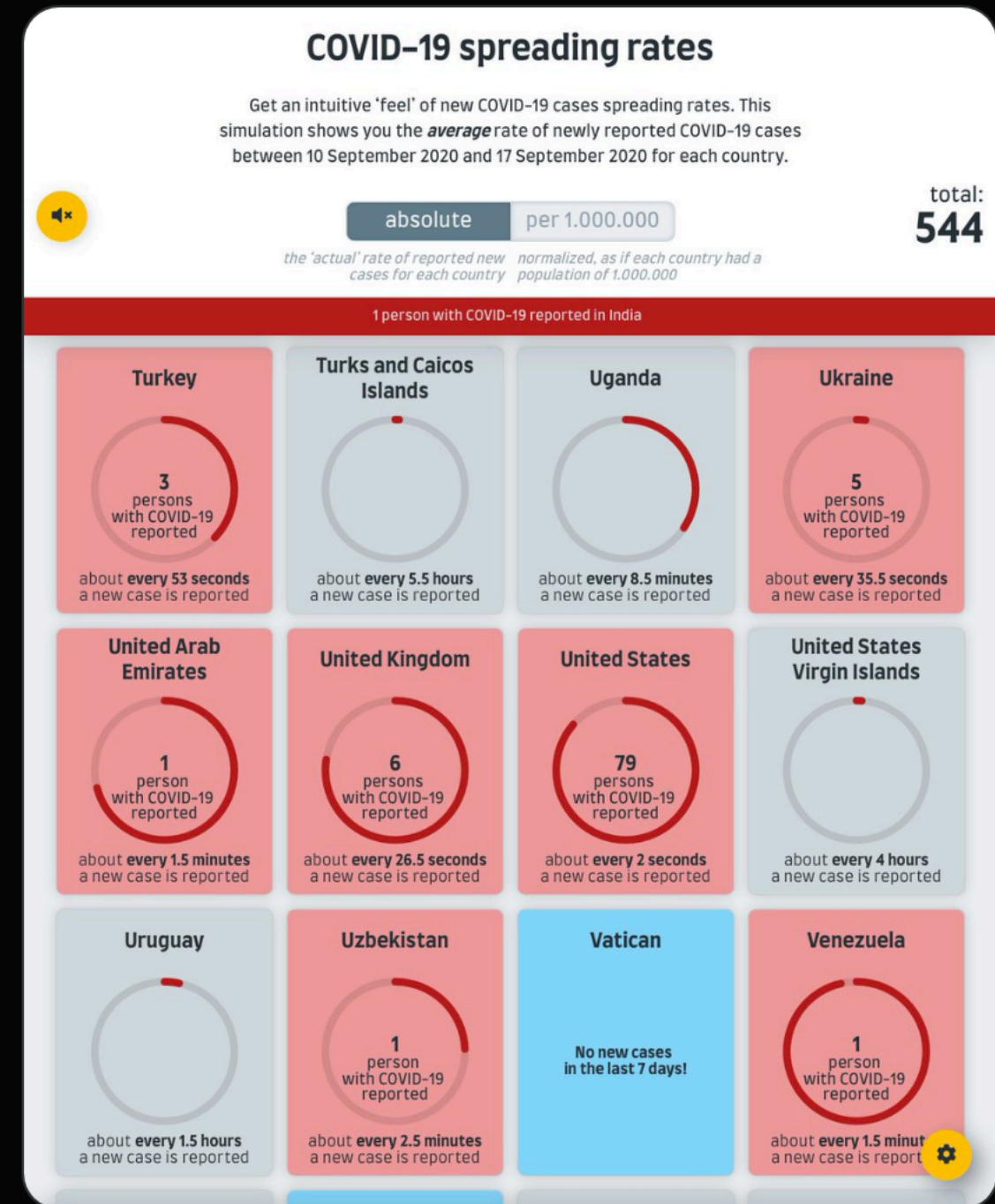
0:05 1,273 views 2 19 24



Roberto Rocha @robroc · Oct 8, 2020
Interesting way to visualize the spread of Covid-19: not as daily infection curves, but as the average time for a new case.
covidspreadingrates.org



Mark Eastwood @designedbymark · Sep 17, 2020
Beautifully visualised but scary to watch [#COVID19](https://covidspreadingrates.org) rates by country in 'real time' [#infographic covidspreadingrates.org](https://covidspreadingrates.org)



James @collettretail · Sep 16, 2020

But sure, let's go back to working in Offices (THE US THO 🤔)
covidspreadingrates.org



Nassos Kappa @nassoskappa · Sep 15, 2020
This is very informative but scary covidspreadingrates.org



Janis Wong @janiswong_ · Sep 21, 2020
Superb visualisation on how covid is spreading. See how many seconds it takes for a positive case to be confirmed in each country
covidspreadingrates.org

2 2



Istvan Hajnal @IstvanHajnal · Sep 14, 2020
Nice tool by @JanWillemTulp that gives you an intuitive feel of new [#COVID19](https://covidspreadingrates.org) cases spreading rates (between 7/9/20 and 14/9/20). Here's a screenshot of the relative view for a selection of countries.
Try it out for your selection of countries at covidspreadingrates.org



3

DISTANCE FROM SUN { 000 MILLION KM }
TIME ELAPSED { 00 MIN 00 SEC }

RIDING LIGHT

1. Think about the "Human Scale" of your data
2. Create a direct experience / simulation





TRAVEL DATA

Treinverkeer in Nederland op een gemiddelde werkdag

Geselecteerd station: **Utrecht Centraal**

De kaart laat het treinverkeer in Nederland op een gemiddelde werkdag zien van alle treinen die gedurende hun reis een stop maken op station **Utrecht Centraal**. Als de treinen over de kaart van station naar station bewegen laten ze een 'spoor' achter. Wanneer je op de knop rechts onderaan klikt, kun je wisselen tussen de kaart weergave, en een weergave waarbij je alle 'sporen' van de hele dag kunt bekijken.



tijd: 08:29



1. Question your assumptions
2. Consider the possibility of using 3D





ENERGY DATA

Power Switcher

The Power Switcher gives you your very own overview of the development of Switzerland's power supply. You decide whether and to what extent solar, wind and other power sources will be used in the future – and you're challenged to ensure an adequate power supply month to month. Use the sliders at the bottom left to configure the expansion of photovoltaics, electricity imports and more. In the illustrations at the bottom right, you can see right away whether you could supply Switzerland with the settings you have chosen. Does the light go out or stay on? It's up to you!

Share the Power Switcher



Adjust Settings

Scenario ⓘ

Choose a future scenario for Switzerland

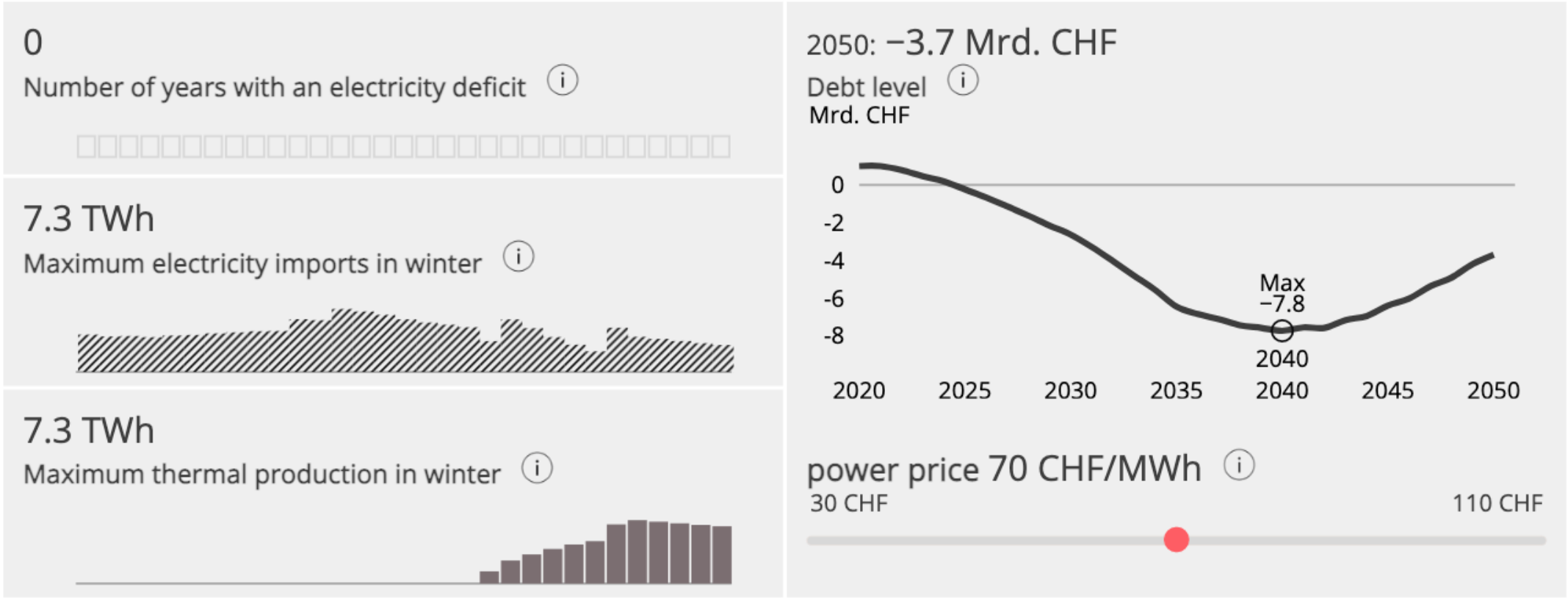
- Axpo
- Energy perspectives 2050+
- Current Expansion Speed
- National Councillor Grossen
- National Councillor Nordmann
- Former National Councillor Rechsteiner
- Helion

The Axpo scenario: significant increase in demand due to sector coupling, expansion of renewable energies, efficiency gains, gas-to-power and imports.

Capacity ⓘ

Adjust the power plant capacities

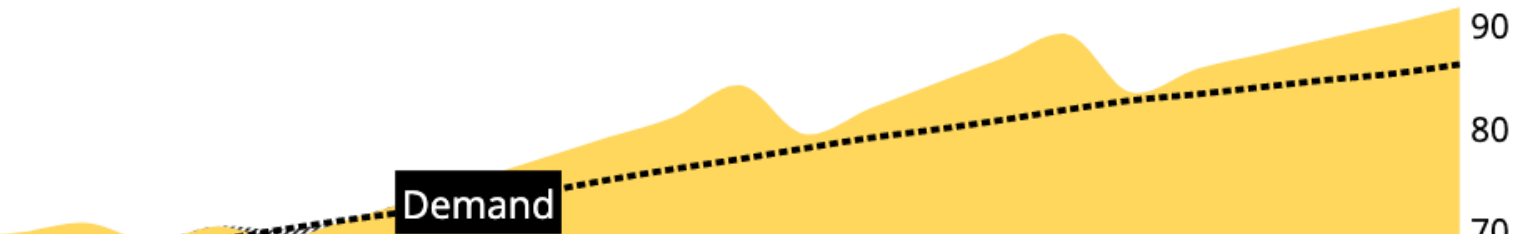
Key Results



Annual electricity mix ⓘ

- Winter (Oct-Mar)
- Whole year
- Summer (Apr-Sep)

Show Import potential



The Power Switcher gives you your very own overview of the development of Switzerland's power supply. You decide whether and to what extent solar, wind and other power sources will be used in the future – and you're challenged to ensure an adequate power supply month to month. Use the sliders at the bottom left to configure the expansion of photovoltaics, electricity imports and more. In the illustrations at the bottom right, you can see right away whether you could supply Switzerland with the settings you have chosen. Does the light go out or stay on? It's up to you!

Share the Power Switcher



^ Key Results

Choose a future scenario for Switzerland

Axpó

Energy perspectives 2050+

Current Expansion Speed

National Councillor Grossen

National Councillor Nordmann

Former National Councillor Rechsteiner

Helion

The Axpo scenario: significant increase in demand due to sector coupling, expansion of renewable energies, efficiency gains, gas-to-power and imports.

Adjust the power plant capacities

0
Number of years with an electricity deficit ⓘ


7.3 TWh

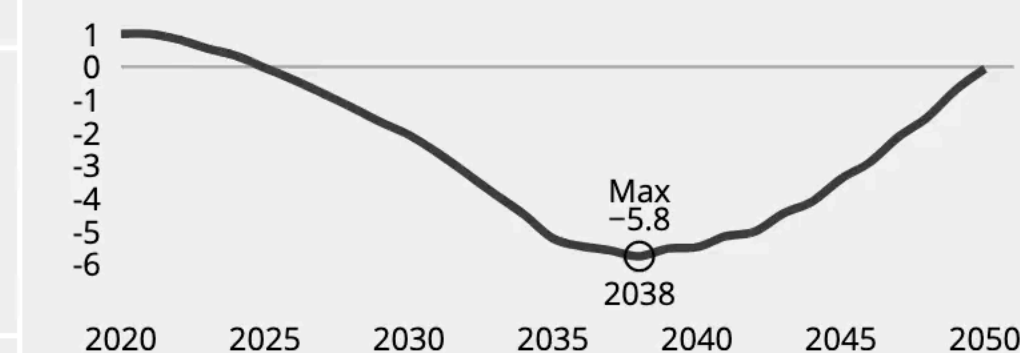
Maximum electricity imports in winter ⓘ

7.3 TWh

Maximum thermal production in winter ⓘ

2050: -0.057 Mrd. CHF

Debt level 
Mrd. CHF



power price 77 CHF/MWh ⓘ
30 CHF

^ Annual electricity mix (i)

Winter (Oct-Mar)

Whole year

Summer (Apr-Sep)

Show Import potential

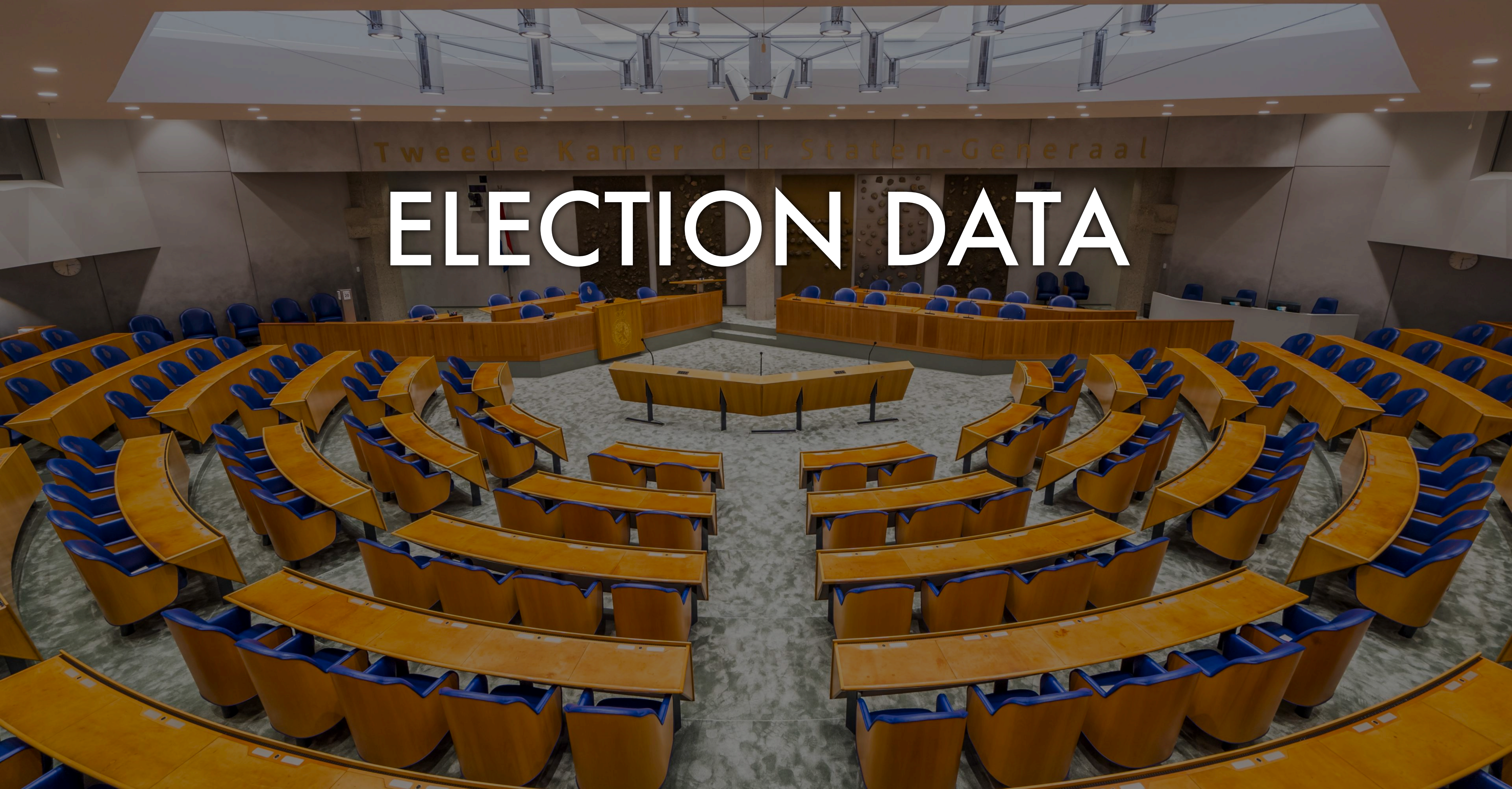


1. Apply **interactivity** so that users can **explore** and **try out** situations immediately
2. **Link multiple views** so that interactive changes are reflected in multiple ways



Tweede Kamer der Staten-Generaal

ELECTION DATA

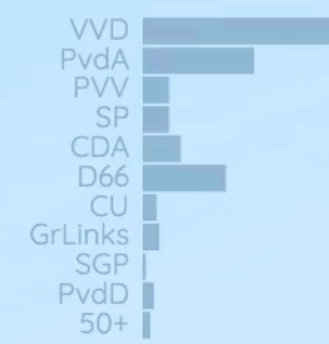


CLOSE VOTES

Which cities vote like yours?

Based on the 2012 parliament elections in The Netherlands, this visualization shows which cities distribute their votes similar over the political parties

Oegstgeest



size: [population](#) / similarity
layout: [radial](#) / geographical



1. Take a **new perspective** on a familiar dataset
2. Don't give away everything so that users can **discover** and **learn** themselves



THANK YOU

