

# Pieter Lange

Engineer @ mollie payments

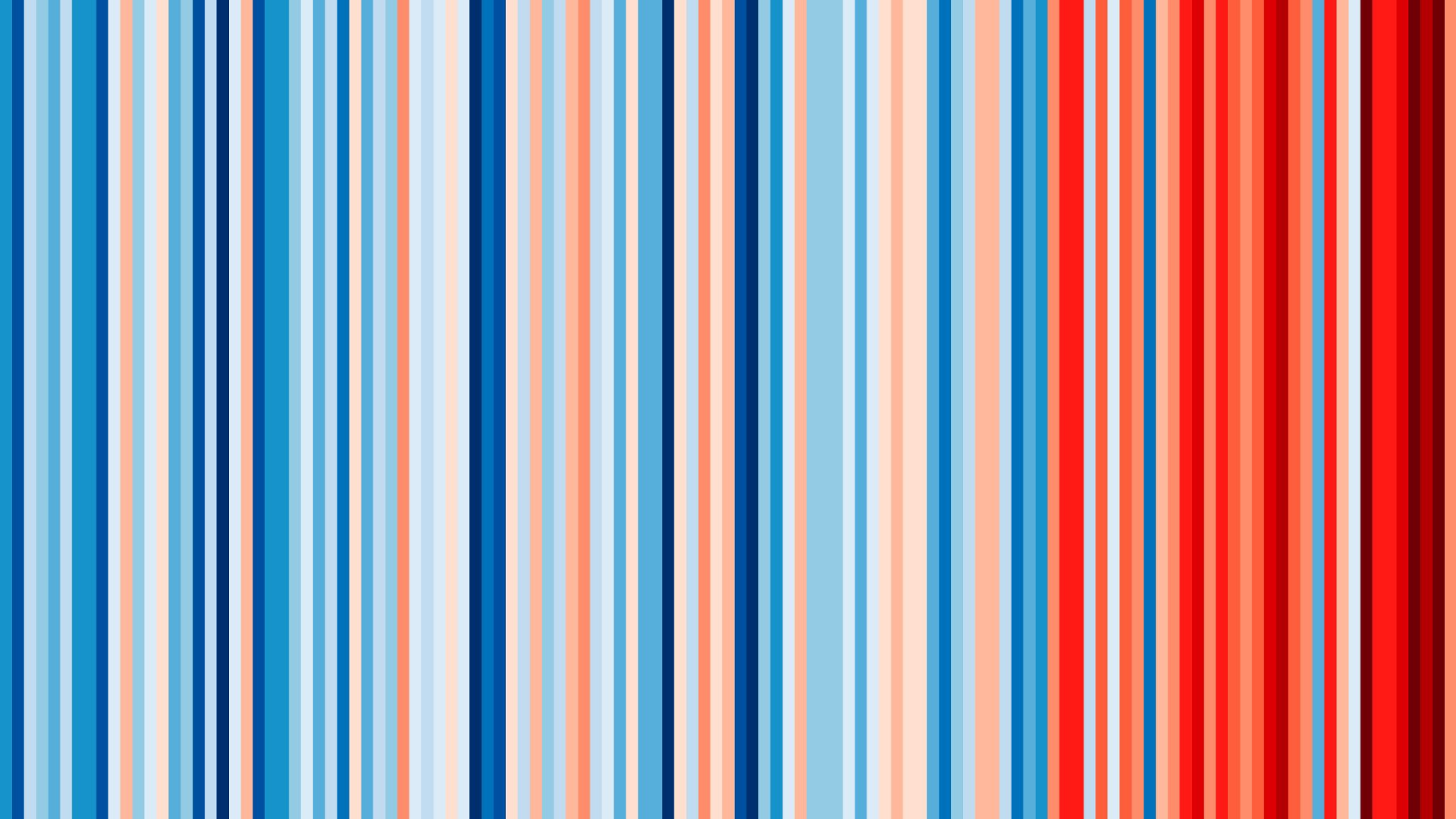
Former meetup organiser



# First time

Heard about this 2 days ago

Ignites should be fun (?) and engaging



# Climate/eco anxiety

- DevOpsDays Amsterdam
- A real problem



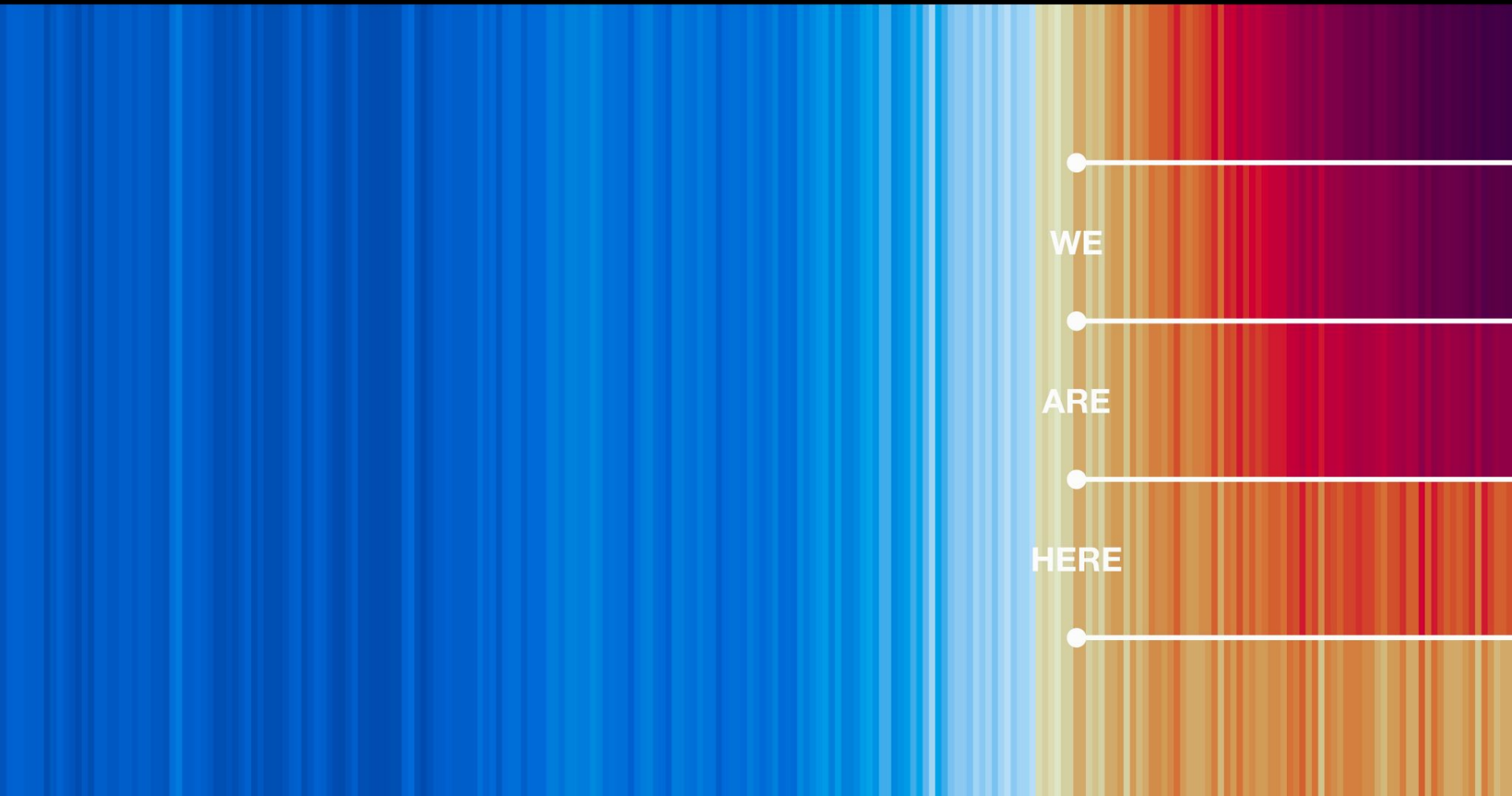
Global temperature change since 1850

Future choices up to 2100

WE

ARE

HERE



# Do something

And do it with a group

Examples:

- Litterpicking
- Join a protest
- Change your job/workplace





De Leidse onderzoekers Auke-Florian Huisman en Hielotte Rambonnet publiceren dit jaar een onderzoek over het effect van zonnepanelen op de biodiversiteit, met gebruik van data die werd verzameld door burgerwetenschappers. Onder hen deze vrijwilligers, die twee weken per kano de grachten van Leiden afvalvrij maken.



**DE GRACHTWACHT**

- [Plasticspotter.nl](https://plasticspotter.nl)
- Initially crowdfunded by citizens of Leiden





# DE GRACHTWACHT

- 2 biology PHD students
- ±15 core volunteers
- 600+ volunteers



# Citizen Science

- Weekly monitoring of Leiden canals
- Hard data CAN effect change
- Great opportunity for SciCom
- 24/7 exhibit





# DE GRACHTWACHT



- Canalcups
- Horeca waste
- Corona waste
- Market..

LEY-OP!!  
VIS HANDEL

plasticspotter.nl



# You said something about work

Our datacenters exhaust more CO2 than the air travel industry

## Carbon Copies: Airlines and Data Centers Are Twin Energy Hogs

Globally, airlines contribute around 2% of all anthropogenic (human-caused) carbon pollution.<sup>1</sup> Data centers are right up there with them, consuming about 3% of the global electric supply, and dumping hundreds of millions of tons of carbon into the atmosphere every year.<sup>2</sup>

This trend is sure to accelerate. In fact, several models suggest that data center energy usage could easily consume up to 10% of the global electricity supply in the next decade. It would be one thing if all those electrons were generated from wind or solar farms. But in reality, over 60% of the world's electricity is still produced using fossil fuels.<sup>3</sup>

[ The Internet of things, artificial intelligence, streaming entertainment, edge deployments, the launch of 5G mobile networks, plus the advent of more powerful (and power-hungry) processors are all destined to drive data center electrical usage higher. ]



According to the global marketing intelligence firm IDC, 152,000 new devices will be connecting to the internet every minute by 2025, bringing the total to 80 billion worldwide.

# You said something about work

As sysadmins/DevOps/SRE:

## Turn off unused systems



# You said something about work

As sysadmins/DevOps/SRE:

## Shrink/colocate underutilized systems



# You said something about work

As sysadmins/DevOps/SRE:

Make efficiency a requirement  
(code and datacenter)





# You said something about work

As people with influence:

## Compensate holiday not travelled by airplane



# You said something about work

As people with influence:

## Deny labor to fossil fuel industry



## Annualized Total Bitcoin Footprints

### Carbon Footprint

73.22 Mt CO<sub>2</sub>



Comparable to the carbon footprint of Turkmenistan.

### Electrical Energy

131.28 TWh



Comparable to the power consumption of Argentina.

### Electronic Waste

43.55 kt



Comparable to the small IT equipment waste of the Netherlands.

## Single Bitcoin Transaction Footprints

### Carbon Footprint

776.21 kgCO<sub>2</sub>



Equivalent to the carbon footprint of 1,720,350 VISA transactions or 129,368 hours of watching Youtube.

### Electrical Energy

1391.66 kWh



Equivalent to the power consumption of an average U.S. household over 47.70 days.

### Electronic Waste

461.60 grams



Equivalent to the weight of 2.81 iPhones 12 or 0.94 iPads. (Find more info on e-waste [here](#).)

**Oppose blockchain fanatics**

