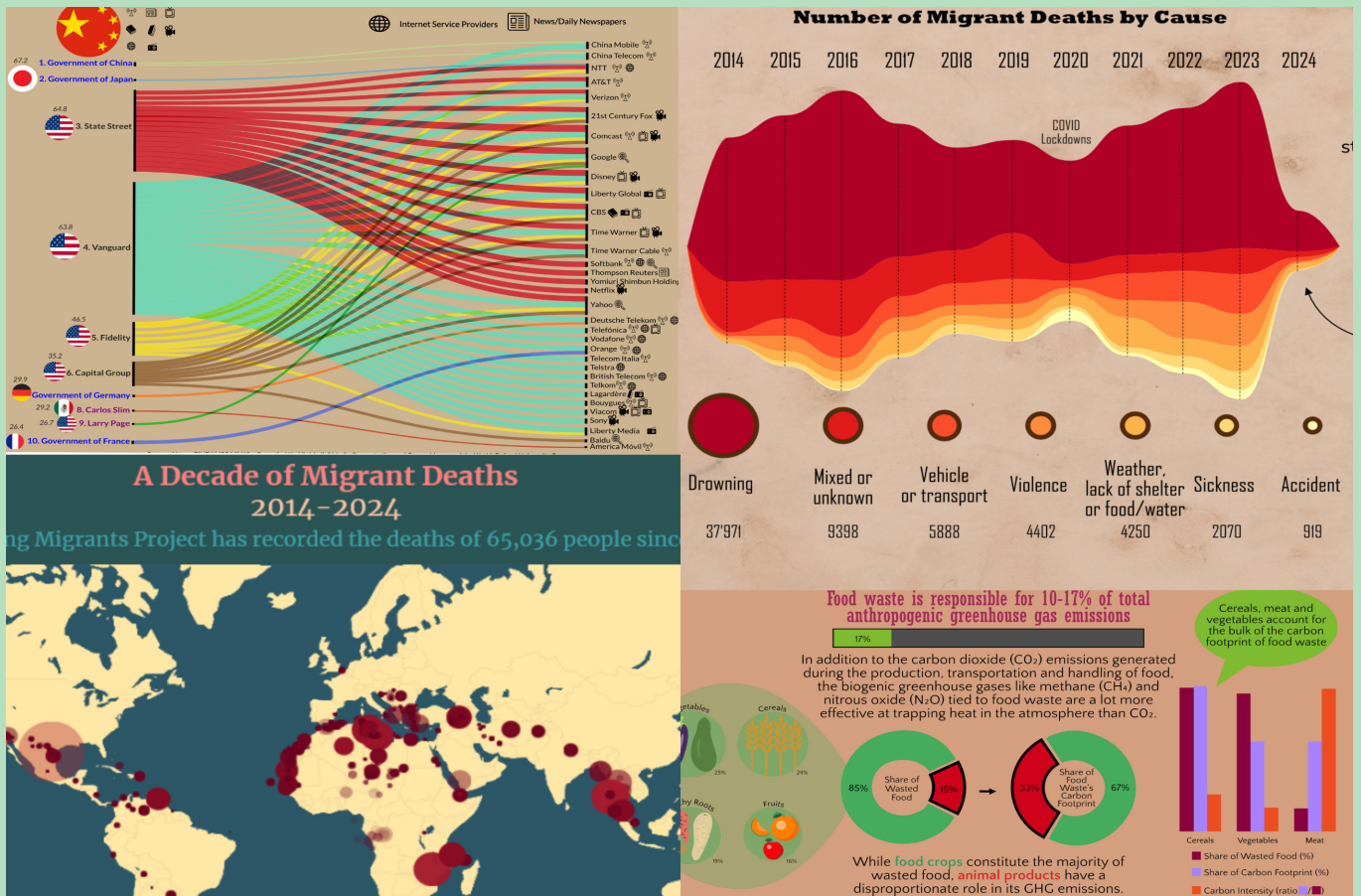


Ravenwood Studios

Visualization Portfolio



Alexandre Bovey

Data Visualization & Information Design



alexandre-bovey.com

Hi, my name is Alex



As an information designer, my mission is to highlight the insights from complex data and topics through compelling visualizations and stories.

I am passionate about helping the public to understand the fundamental issues of our time, and and to fight for social change.

Please [get in touch](#) if you're interested in the following services, I am ready to either take on the whole process from data exploration to visualization myself, or help you for more specific tasks!

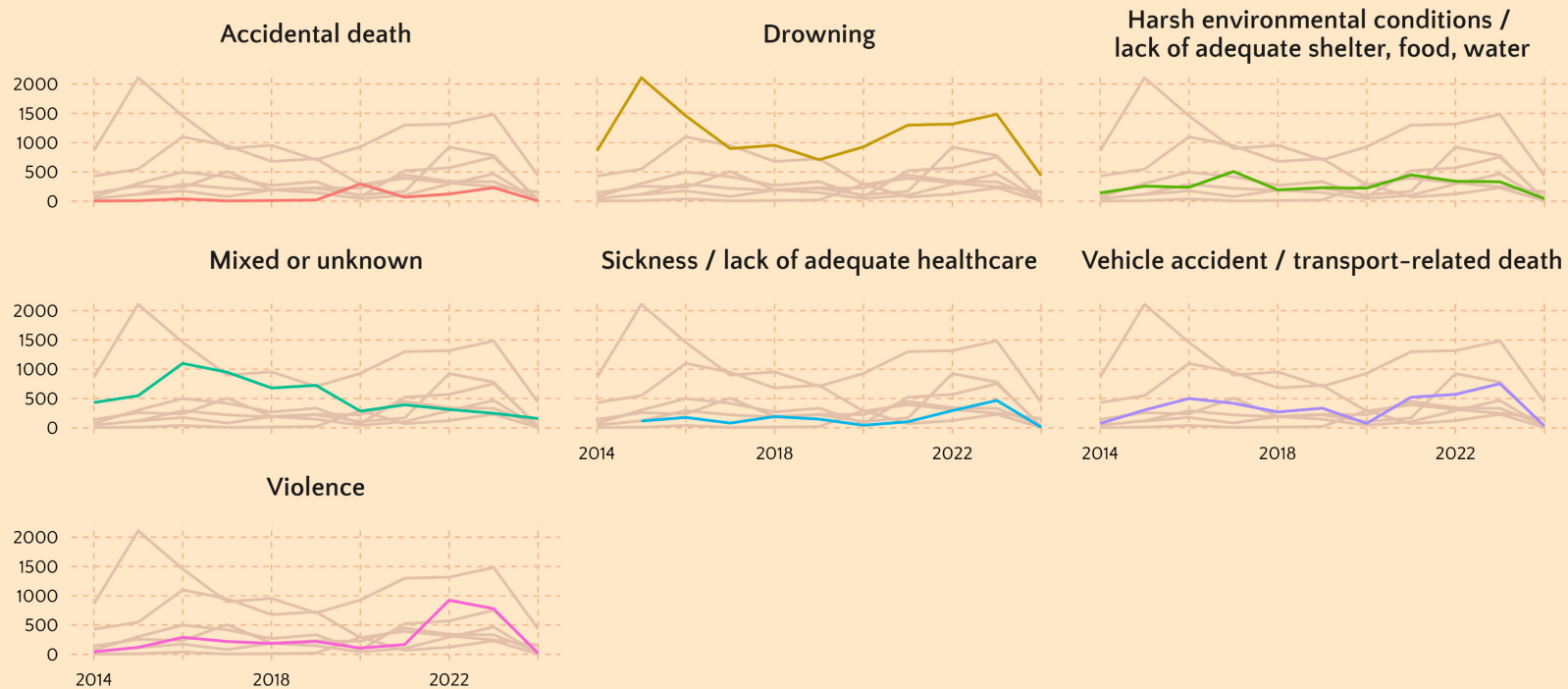
- ◆ Data Processing & Exploration
- ◆ Data Visualization & Infographic Design



alexandre-bovey.com

Chart Design

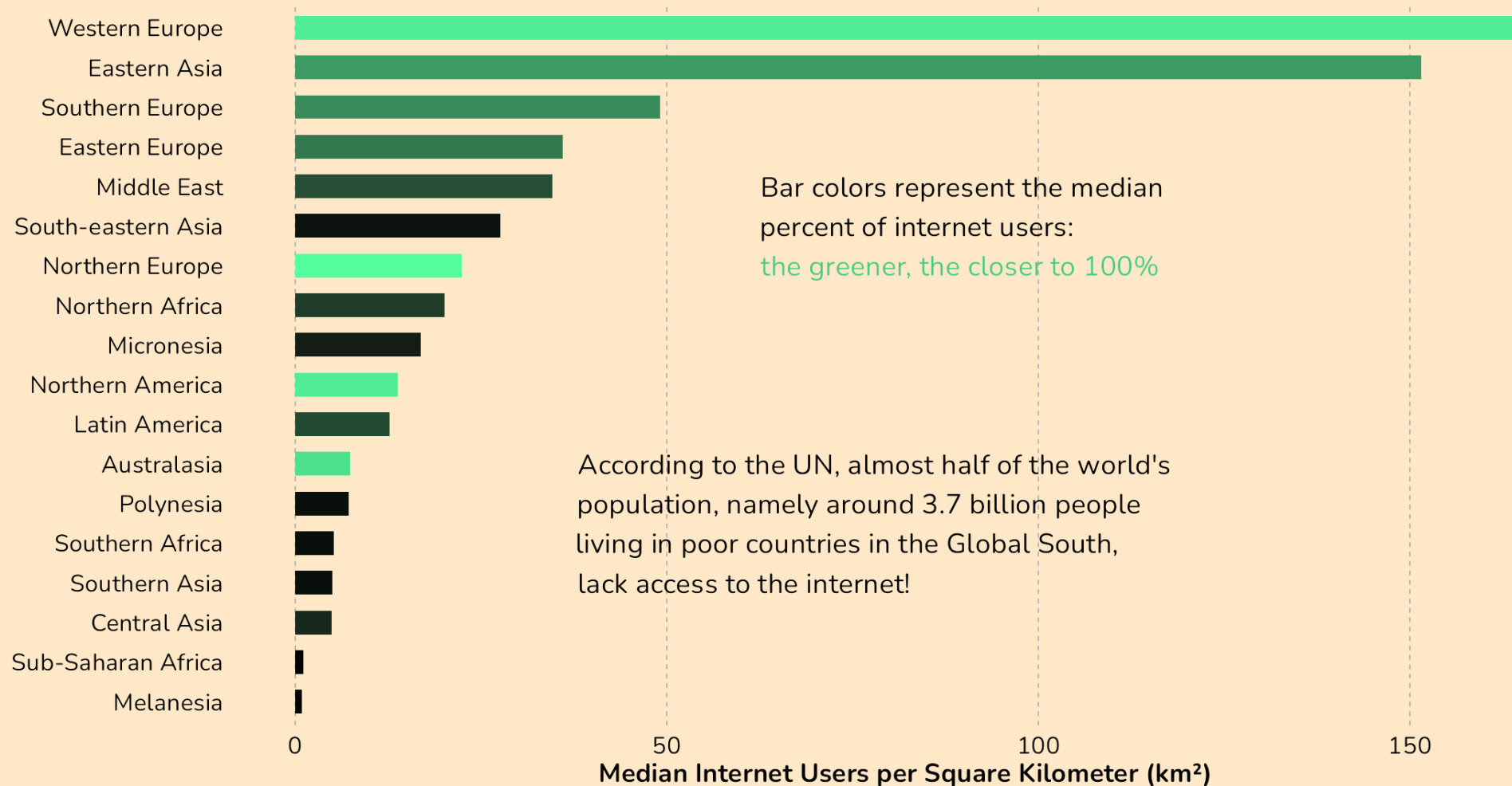
Number of Migrant Deaths by Cause since 2014



Visualization: Alexandre Bovey
Data: Missing Migrants Project, 2024



TidyTuesday 2024, #43: Internet Users by Country



Visualization: Alexandre Bovey

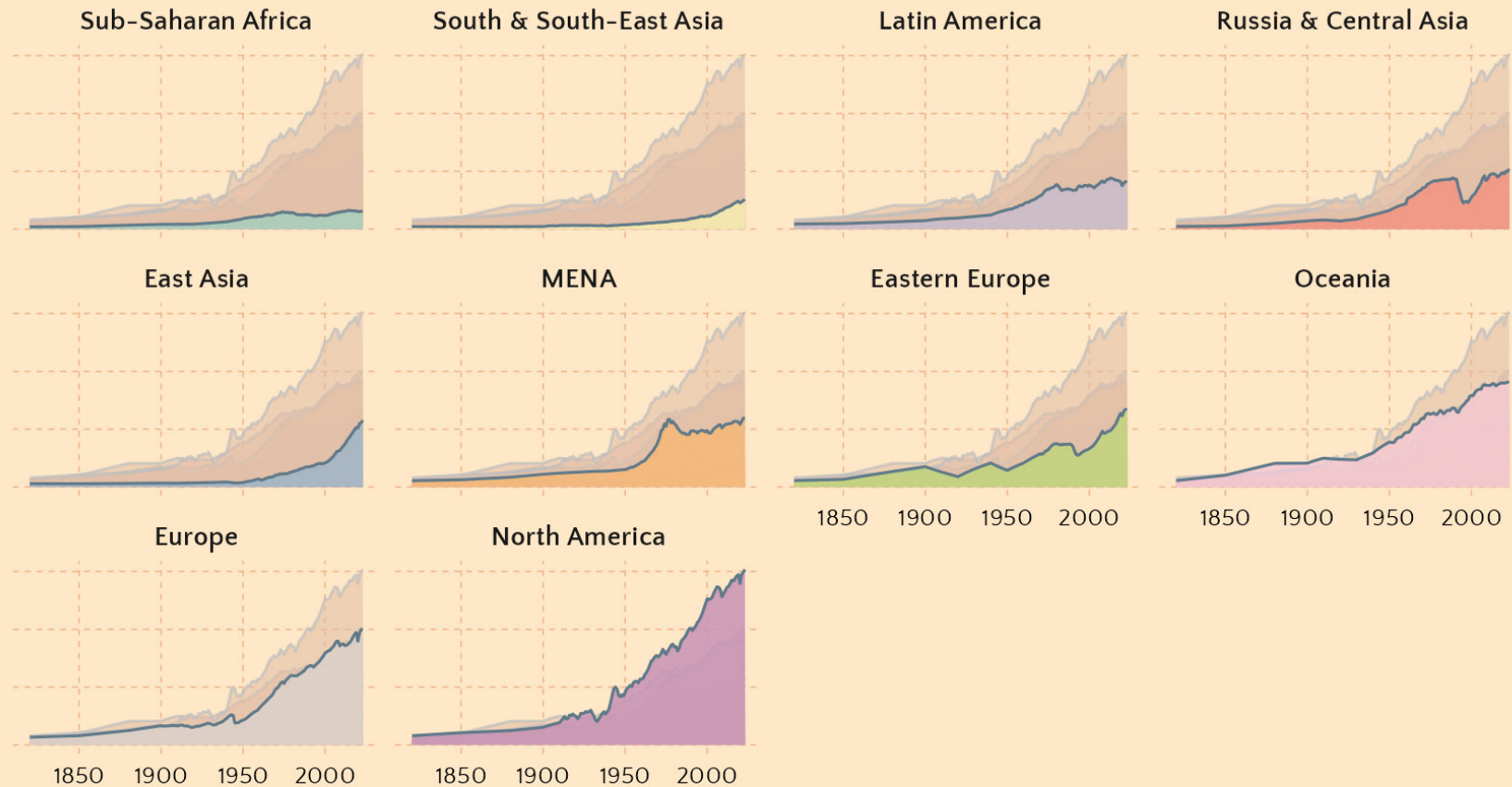
Data: CIA World Factbook, UN



alexandre-bovey.com

Average Income Per Adult from 1820 to 2023

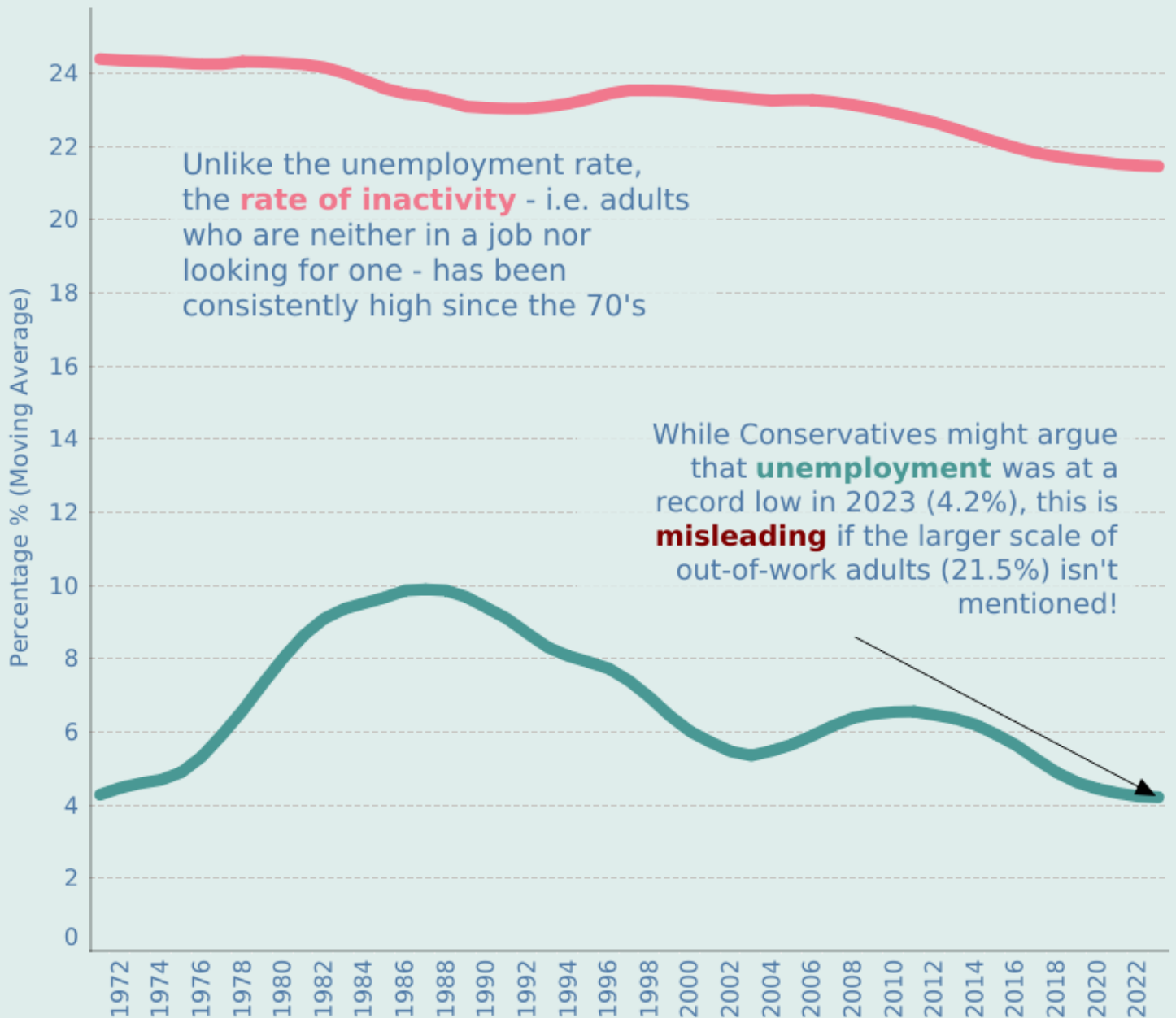
Euro € | ppp | constant (2023)



Data: World Inequality Database
Visualization: Alexandre Bovey



Unemployment Statistics in the UK: A Game of Shadows



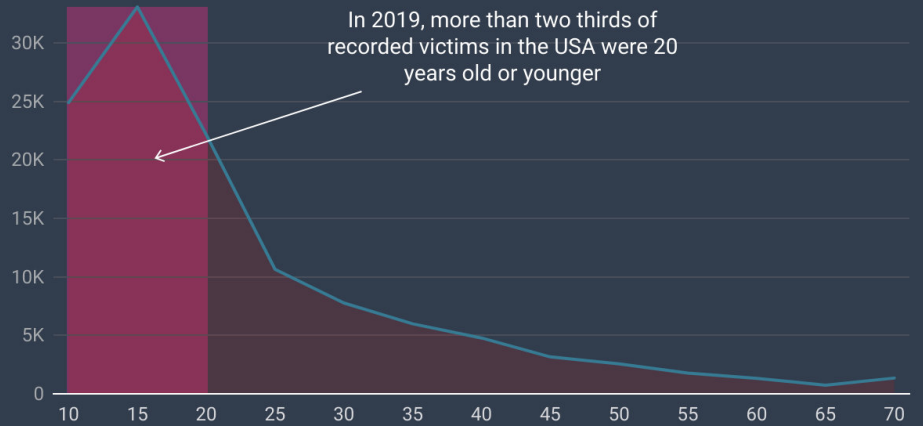
Source: ONS (12/03/2024)

Visualization: Alexandre Bovey



alexandre-bovey.com

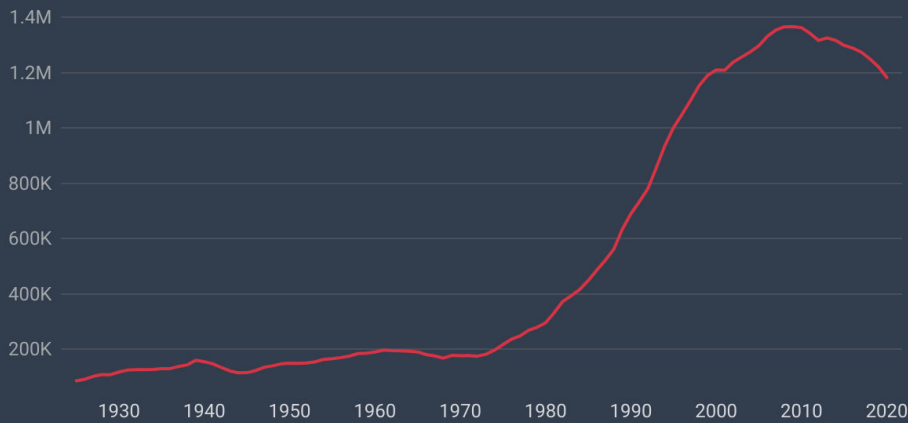
Children & Teens are the Primary Targets of Sexual Violence



Source: FBI's NIBRS (2019) • Created with Datawrapper

Growth of the U.S. Carceral Population Since 1925

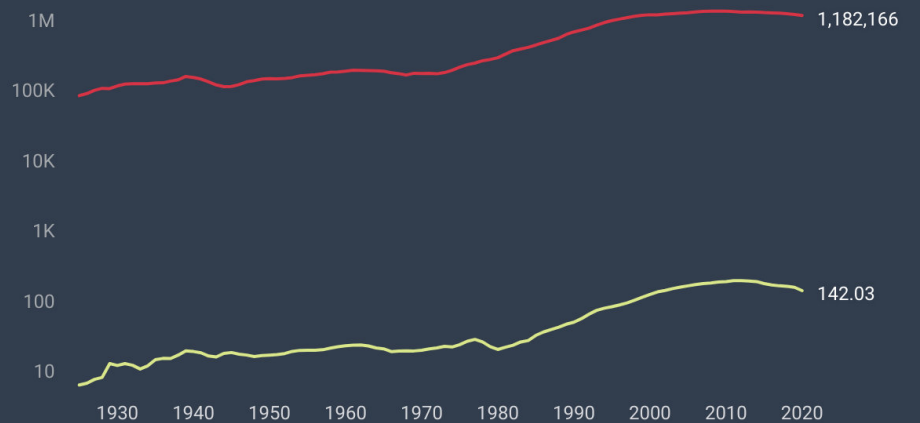
— Total population on a single day, in state prisons



Source: Prison Policy Institute • Created with Datawrapper

Growth of the U.S. Carceral Population Since 1925

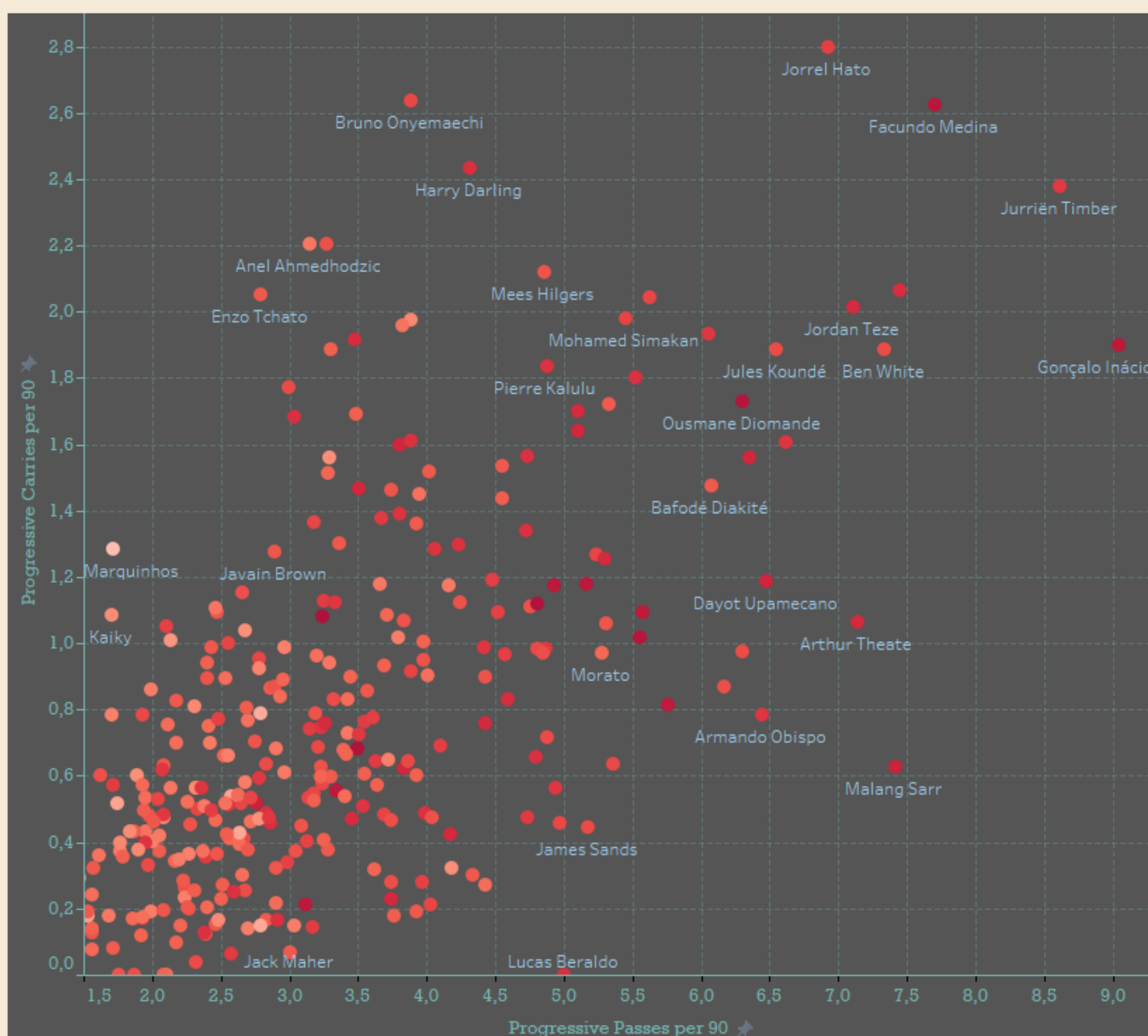
— State prisons — Federal prisons



Source: Prison Policy Institute • Created with Datawrapper



Last Season's Most Promising Ball-Playing Centre-Backs



Touch Centrality (%)

6,552 13,817

Touch Centrality measures how much a player contributes to his team's possession in terms of ball control.

The % is the proportion the player's touches per 90 represent within his team's total touches (per 90).

All players 25yo or younger, with at least 500min played, in 22/23.

Leagues:

First tier: England, France, Spain, Italy, Germany, Portugal, Netherlands, Brazil, USA, Mexico + England's second tier (Championship).

Data viz from @alraven3
Source: Statsbomb data collected via Fbref.com with code from @BeGriffis



Florentino Luís

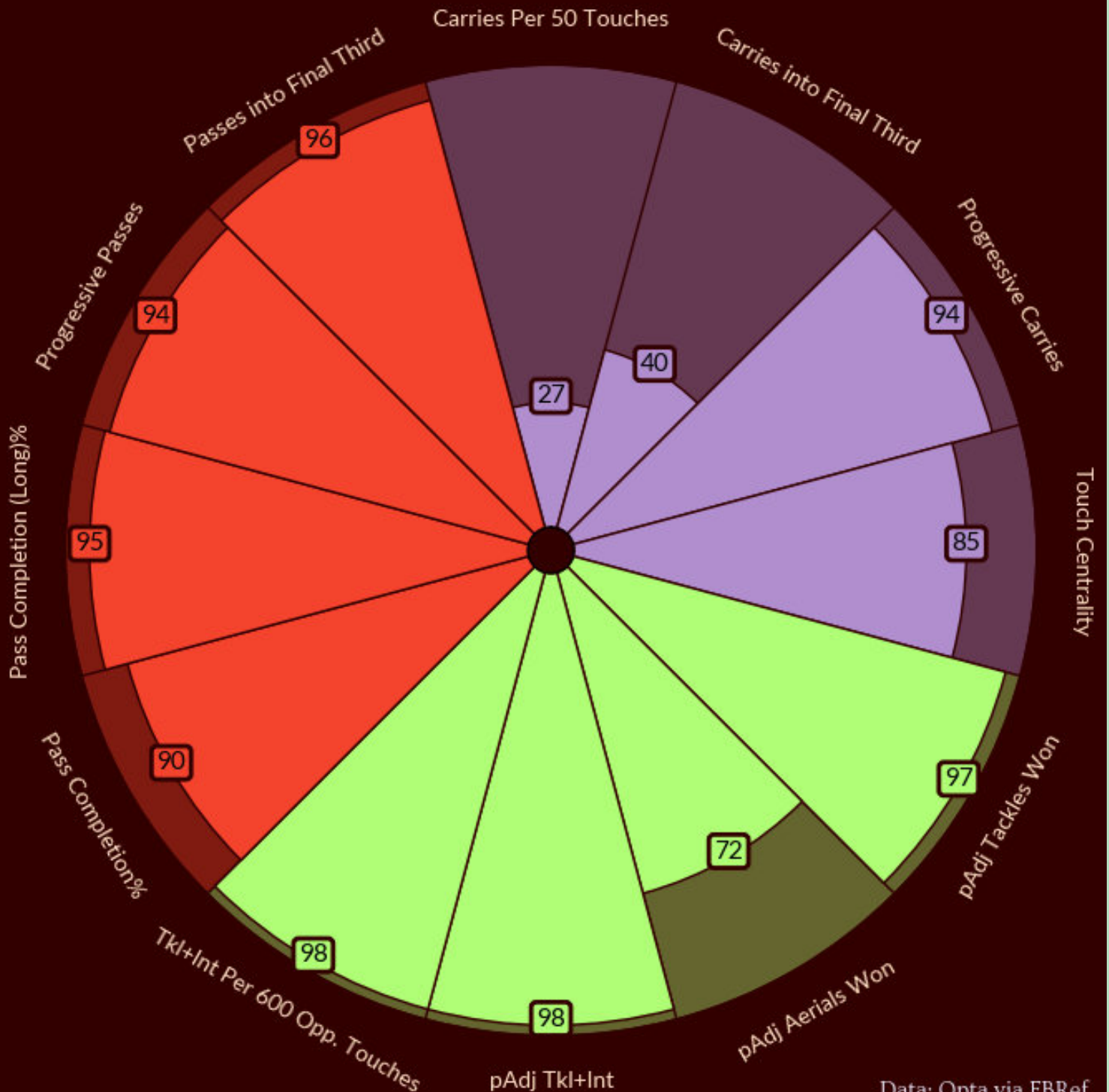
24yo | Benfica | 10.13 90s | 1.84m

Percentile Rank vs Midfielders | 2023/24 | Made by @alraven3

Defending

Carrying/Ball Control

Passing

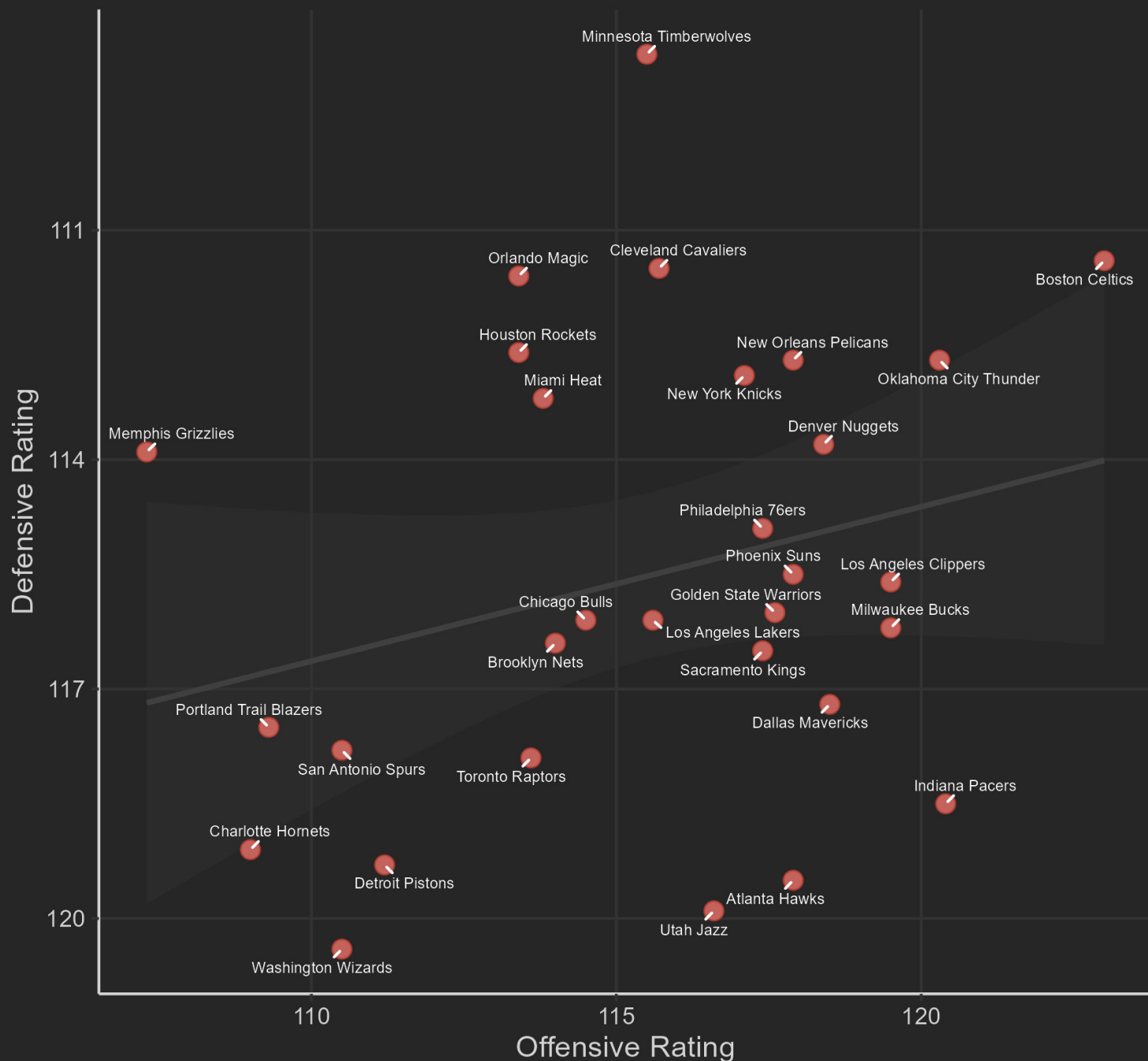


Data: Opta via FBRef
Own Percentiles based on Raw Data, for 16 'advanced' Leagues
All values per 90; Touch Centrality = Proportion of Player's Touches to His Team's Total Touches
Chart inspired by @Worville, made with Mplsoccer



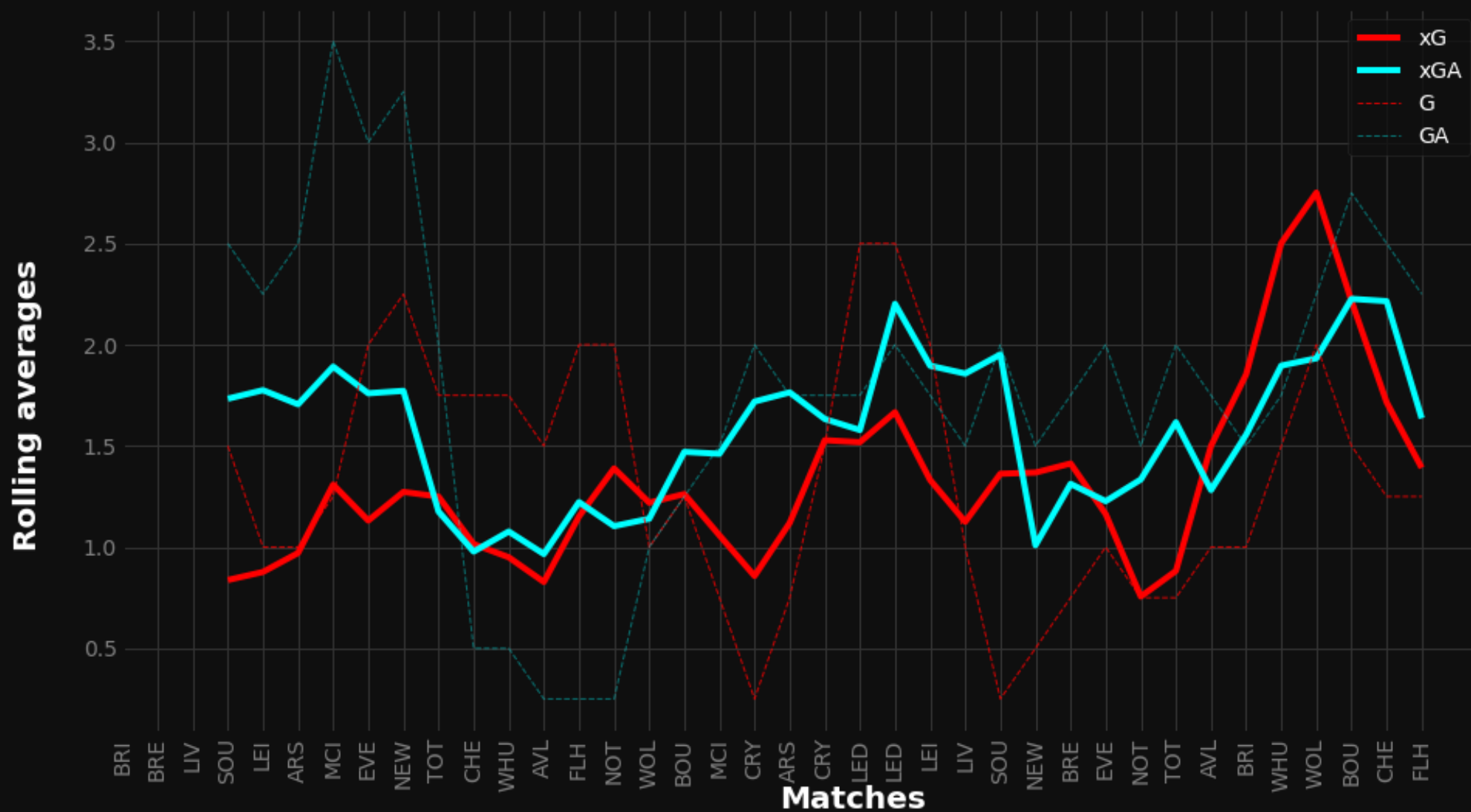
Offensive Rating of NBA Teams

2023-24 Regular Season



Man Utd 2022/23 season

Expected Goals Scored (xG) vs Expected Goals conceded (xG)



Dashboards

Layouts with multiple variables and charts, giving a more detailed overview of a topic

Beeswarm Plots Comparing Two Football Players' Performance Over a Season



Football Match Report

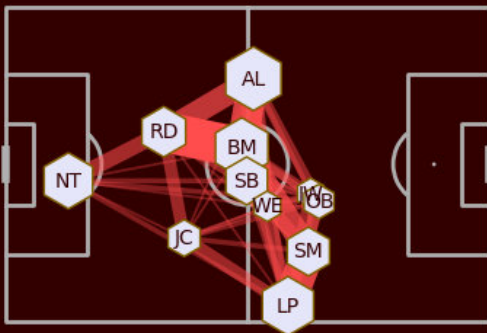
Newport County

1 - 1

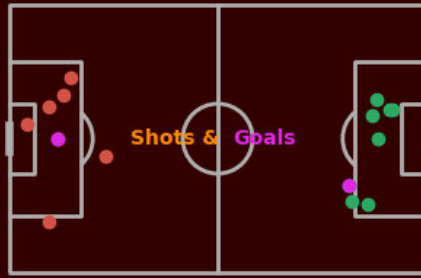
Barrow

League Two, September 16, 2023

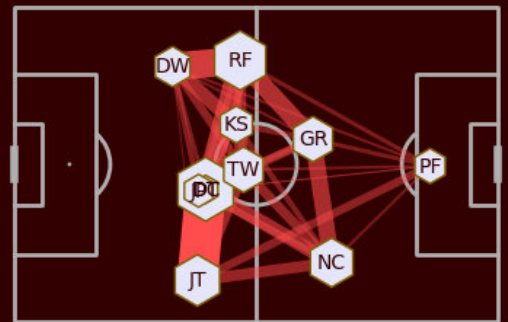
Home Pass Network



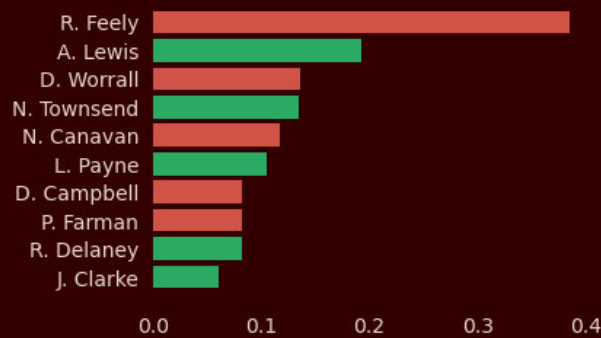
Shots & Goals



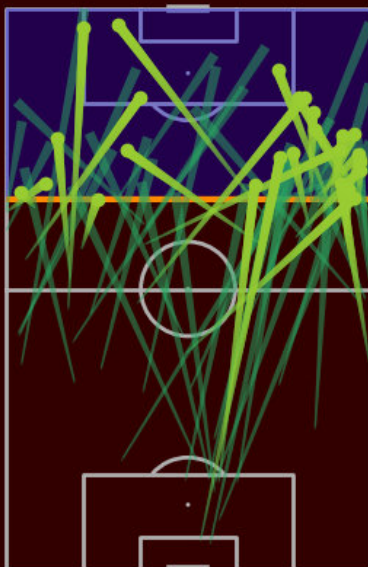
Away Pass Network



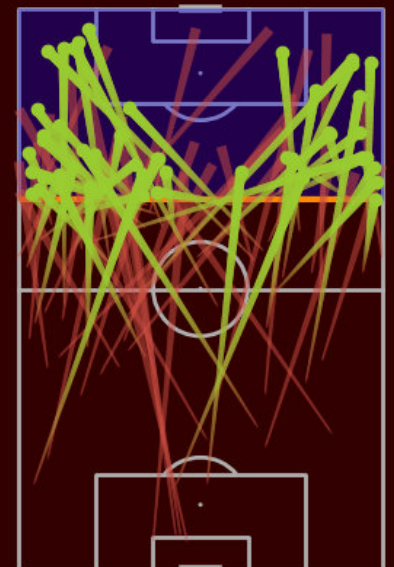
Top 10 Players: Passing xT



Home Passes into the Final 1/3

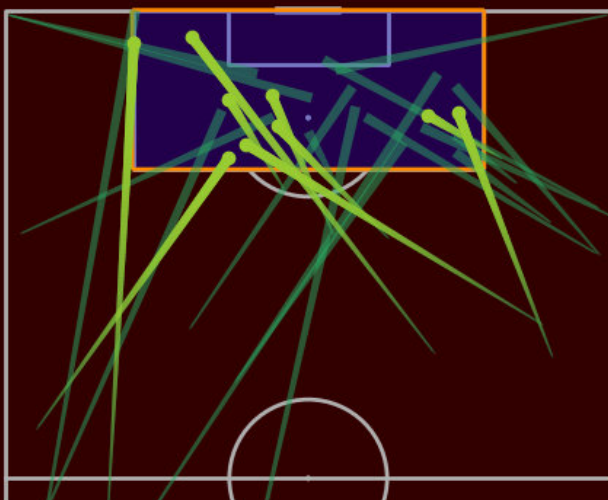


Away Passes into the Final 1/3



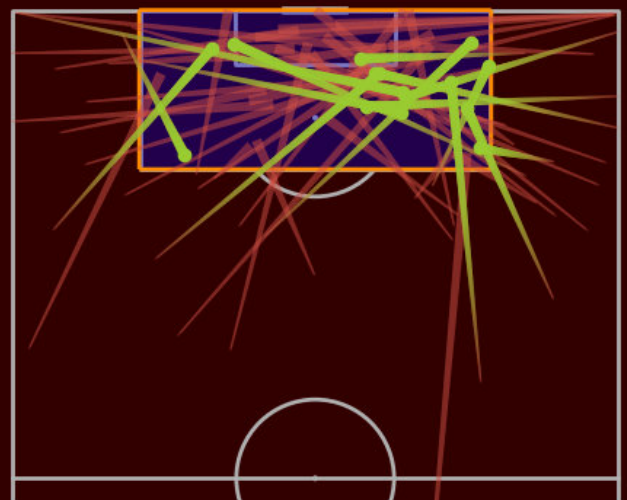
Box Entries	26	54
Big Chances	1	1
SOT	2	3
Possession	36.4%	63.6%
Field Tilt	40.0%	60.0%
PPDA	6.1	4.0

Home Passes into the Box



Away Passes into the Box

→ Completed Passes



@alraven3

Data via Opta



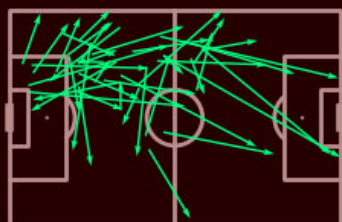
alexandre-bovey.com

*One football team's individual pass maps
for a specific game*

Lausanne-Sport's Passing against Servette

Swiss Super League, March 10, 2024

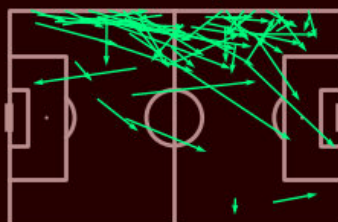
B. Dabanli



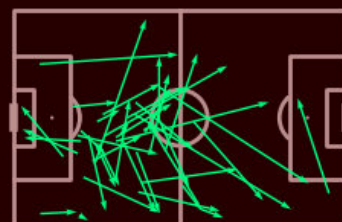
F. Diabaté



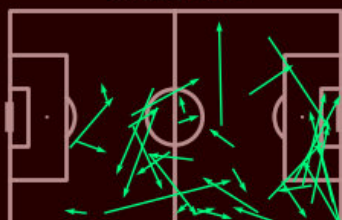
M. Poaty



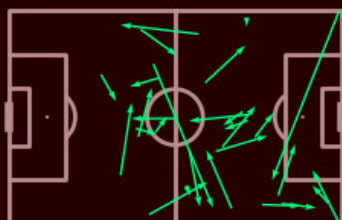
N. Dussenne



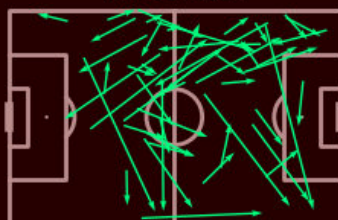
O. Custodio



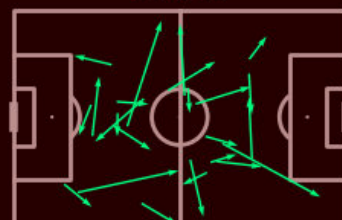
S. Pafundi



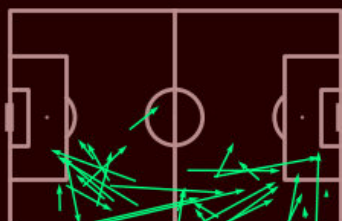
A. Bernede



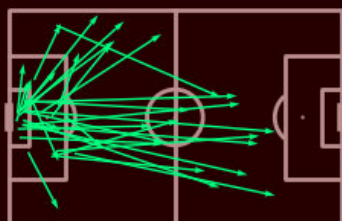
J. Roche



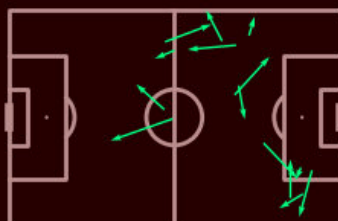
R. Giger



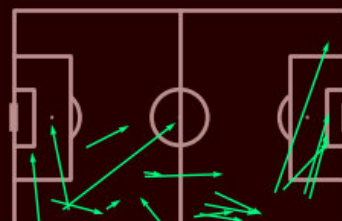
K. Letica



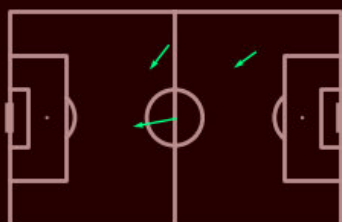
K. Sène



H. Loucif



B. Labeau



Data: Opta

Direction of Play →

@alraven3



Infographics

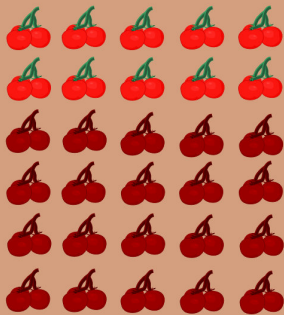
Posters containing a mix of visualizations, pictures/ drawings/symbols and text

Infographics on Global Food Waste

Overview of Modern Food Waste

While at least 25'000 people die of hunger every day and close to a billion people are undernourished, frightening amounts of food get wasted, which in turn contributes to the global ecological crisis.

At least a third of total food is wasted every year across production, distribution and consumption



Over one billion tons of food get wasted, about a third of the mass of the Great Pyramid of Giza.



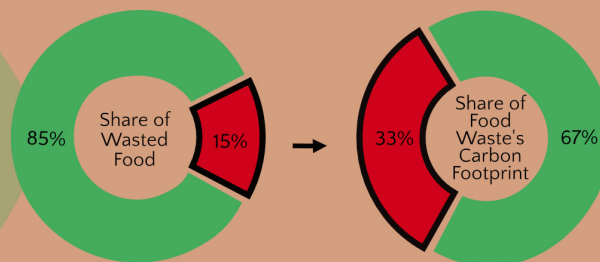
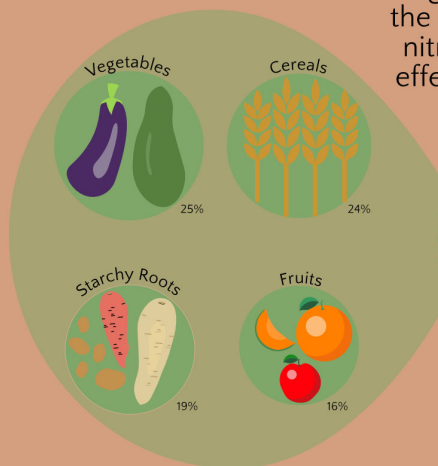
According to conservative estimates, the equivalent of one billion meals is being wasted by households every single day, which would be enough to give 1.3 daily meals to everyone impacted by hunger.



Food waste is responsible for 10-17% of total anthropogenic greenhouse gas emissions

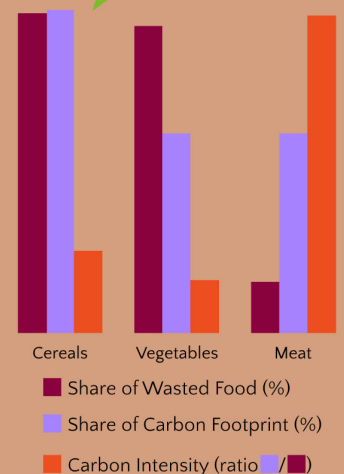


In addition to the carbon dioxide (CO₂) emissions generated during the production, transportation and handling of food, the biogenic greenhouse gases like methane (CH₄) and nitrous oxide (N₂O) tied to food waste are a lot more effective at trapping heat in the atmosphere than CO₂.



While **food crops** constitute the majority of wasted food, **animal products** have a disproportionate role in its GHG emissions.

Cereals, meat and vegetables account for the bulk of the carbon footprint of food waste



Sources: UNEP (2024), FAO (2013), Mbow *et al.* (2019), Zhu *et al.* (2023), Crippa *et al.* (2021), Klaura *et al.* (2019).

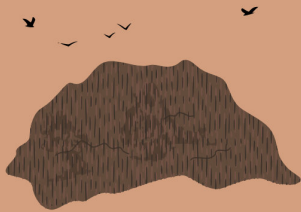
Visualization: Alexandre Bovey

(Part 1)



alexandre-bovey.com

Infographics on Global Food Waste



The majority of food waste ends up in **landfills**, where it releases methane while degrading under anaerobic conditions. Methane emissions also come from ruminants' digestive process and some specific production methods (e.g. rice paddies).

Nitrous oxide emissions are mainly tied to synthetic fertilizers and manure management.

The production of all this wasted food has a huge **water footprint**, and contributes to **habitat and biodiversity loss**, whose primary driver is the conversion of natural ecosystems for agriculture.



Food waste takes up the equivalent of a third of the world's agricultural land



The volume of water used each year to produce food that is wasted is equivalent to three times the volume of Lake Geneva

Food waste is widespread across the world, not just in rich countries. There are some regional differences however: consumption-based losses are predominant in richer countries, whereas production-based losses are more widespread in poorer regions (e.g. Africa, South America).

Food waste includes an enormous sacrifice of animal lives: 18 billion - or nearly one in four - land animals who are raised to die in factory farming aren't eaten



The overwhelming majority of this waste - as well as premature deaths on the farm - are chicken, at a staggering 16.8 billions (93.6%).



Europe, North and South America, are responsible for 80% of global meat waste. Meanwhile, China and the USA account for a third of animal lives lost because of food waste, due to their large population sizes and diets. In contrast, despite its large population India consumes - and therefore wastes - a lot less meat.

Insufficient data and research

- The main type of comparative country-level data is about household waste, and even then there are gaps and issues with this coverage.
- Hence many stages of the food waste process are under-measured, such as manufacturing or transportation.

Sources: UNEP (2024), FAO (2013), Mbow *et al.* (2019), Zhu *et al.* (2023), Crippa *et al.* (2021), Klaura *et al.* (2019).

Visualization: Alexandre Bovey

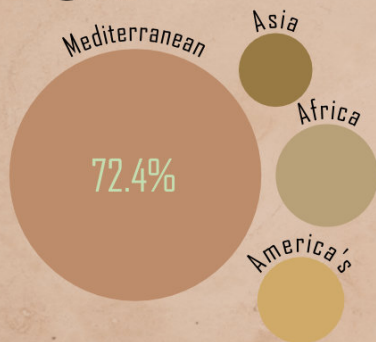
(Part 2)



alexandre-bovey.com

Infographic based on Missing Migrants Project data

Drowning Deaths By Region



Drowning is by far the largest cause of deaths - accounting for nearly two-thirds - and is concentrated in the Mediterranean. This is a direct result of Europe's policies in the past decade, intended to make migration routes as dangerous as possible.

Total Dead and Missing by Cause



THE DEADLY CONSEQUENCES OF THE BORDER REGIME

Number of Migrant Deaths by Cause

The UN's conservative estimate is a total of over 65'000 deaths since 2014, which probably represents only the tip of the iceberg. Investigations from Lighthouse Reports and others have shown that the reality is even grimmer, but states and border authorities try to hide it.

Note: the data for 2024 is incomplete, it's unlikely there's actually been a major decrease!

Made by Alexandre Bovey
Date: June 5, 2024
Source: Missing Migrants Project (UN)

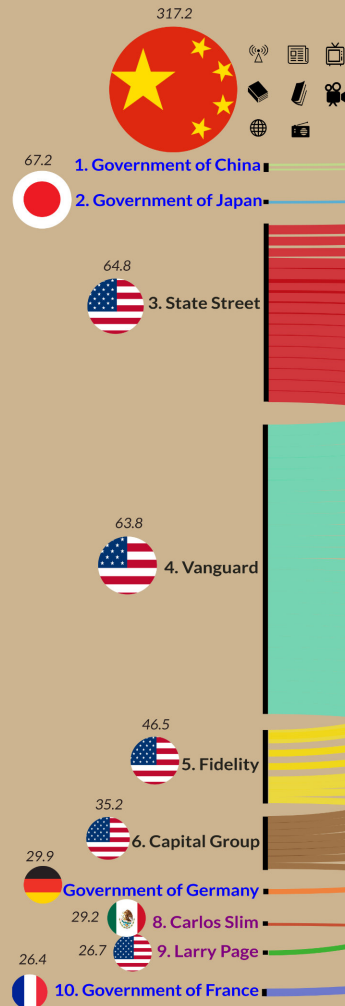


Infographic on global media concentration

Global Media Concentration

Top 10 Media Owners Worldwide - as of Sept. 2013
Value of Media Holdings (\$ Billions)

■ Governments ■ Individuals ■ Institutional Investors



Companies and the Industries they Dominate



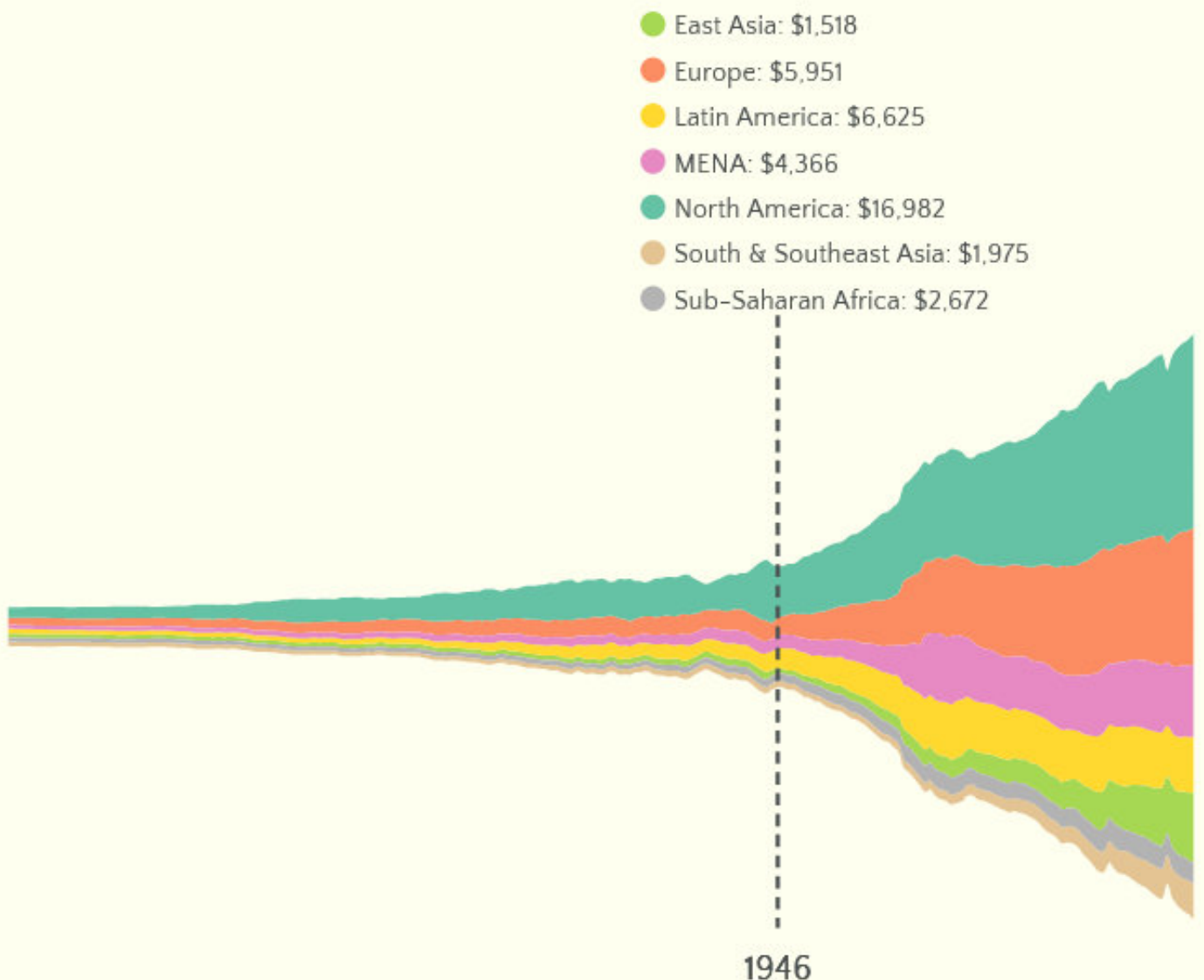
Source: Noam, Eli (Ed.) (2016) Who Owns the World's Media? Media Concentration and Ownership around the World, Oxford University Press.



Interactive Visualizations

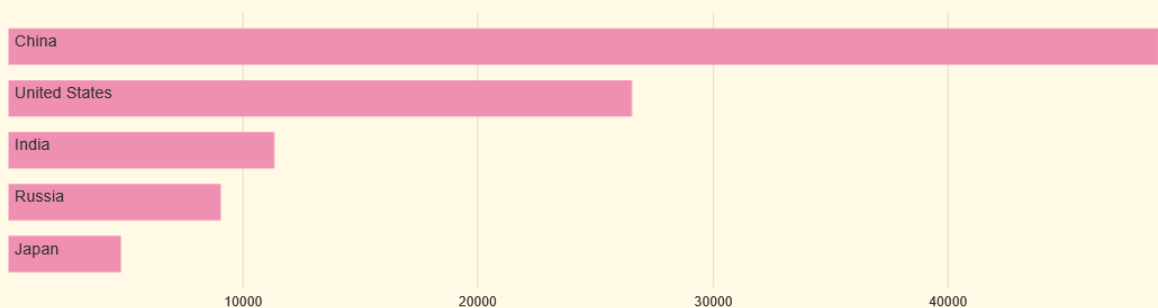
I have experience creating interactive charts and visualizations using Tableau, Flourish, Python, R, and D3.js/React/Svelte.

Based on the [World Inequality Database](#), I created this responsive and interactive gallery of 13 charts with D3.js and React. Click [here](#) for the D3-only version and [here](#) for the D3/React version.

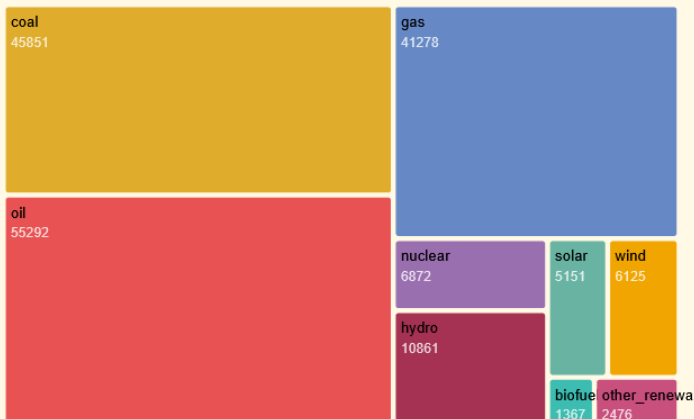


This [interactive dashboard](#) made with D3.js and React includes charts on the global energy consumption mix in 2024, as well as the global evolution of energy consumption by source since 1965.

Top 5 Countries by Energy Consumption (2024)

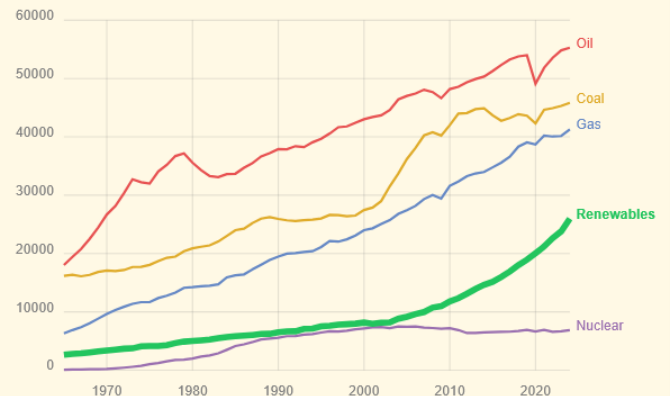


World Energy Mix (2024)



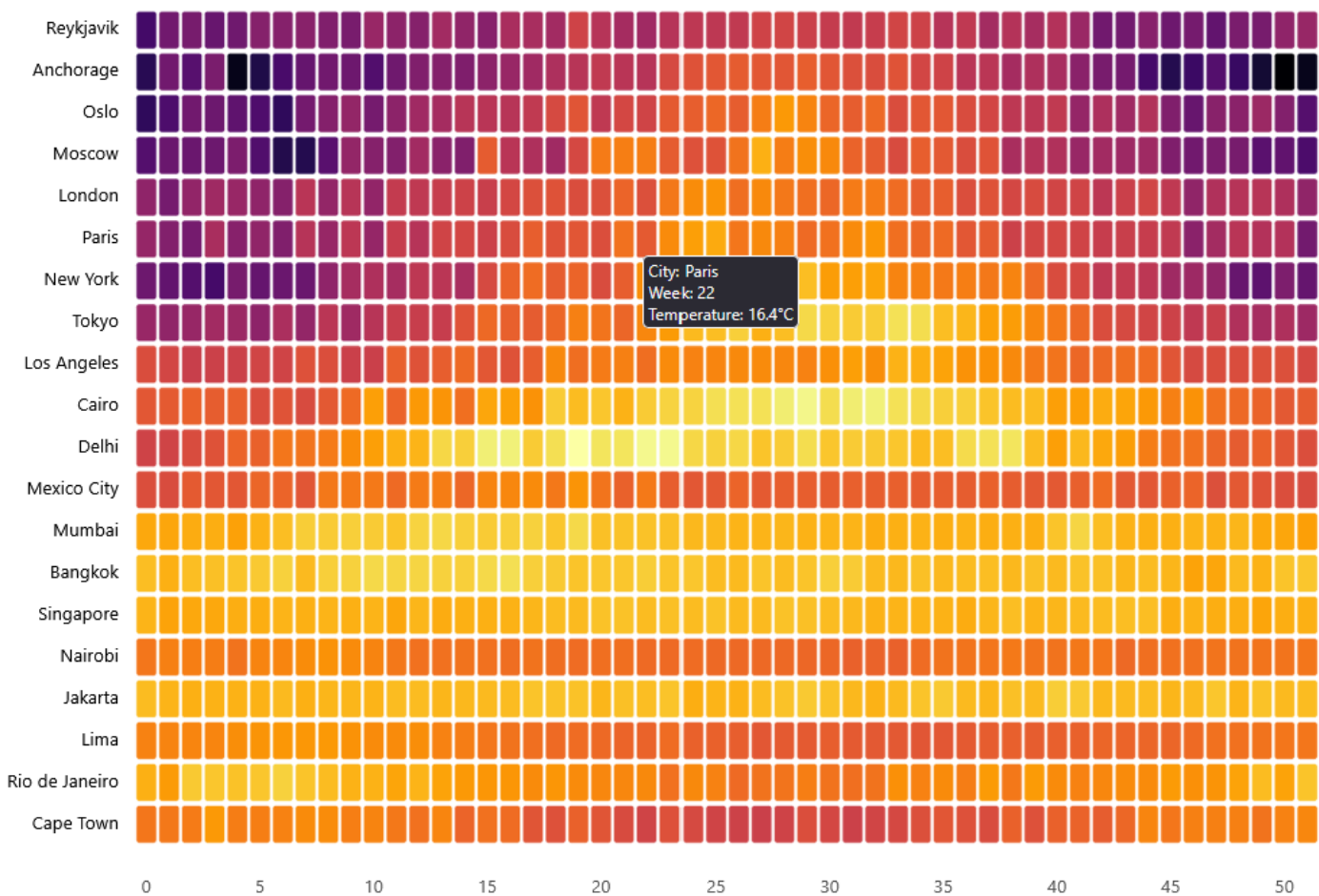
The Global Evolution of Energy Consumption (1965-2024)

Despite Some Progress, Renewables Remain Far Behind Fossil Fuels



This is a [heatmap](#) of weekly temperatures in a set of cities across the world in 2025. The data is fetched from an API and there's a tooltip to explore weekly values.

Heatmap: Weekly Temperatures Across the World in 2025

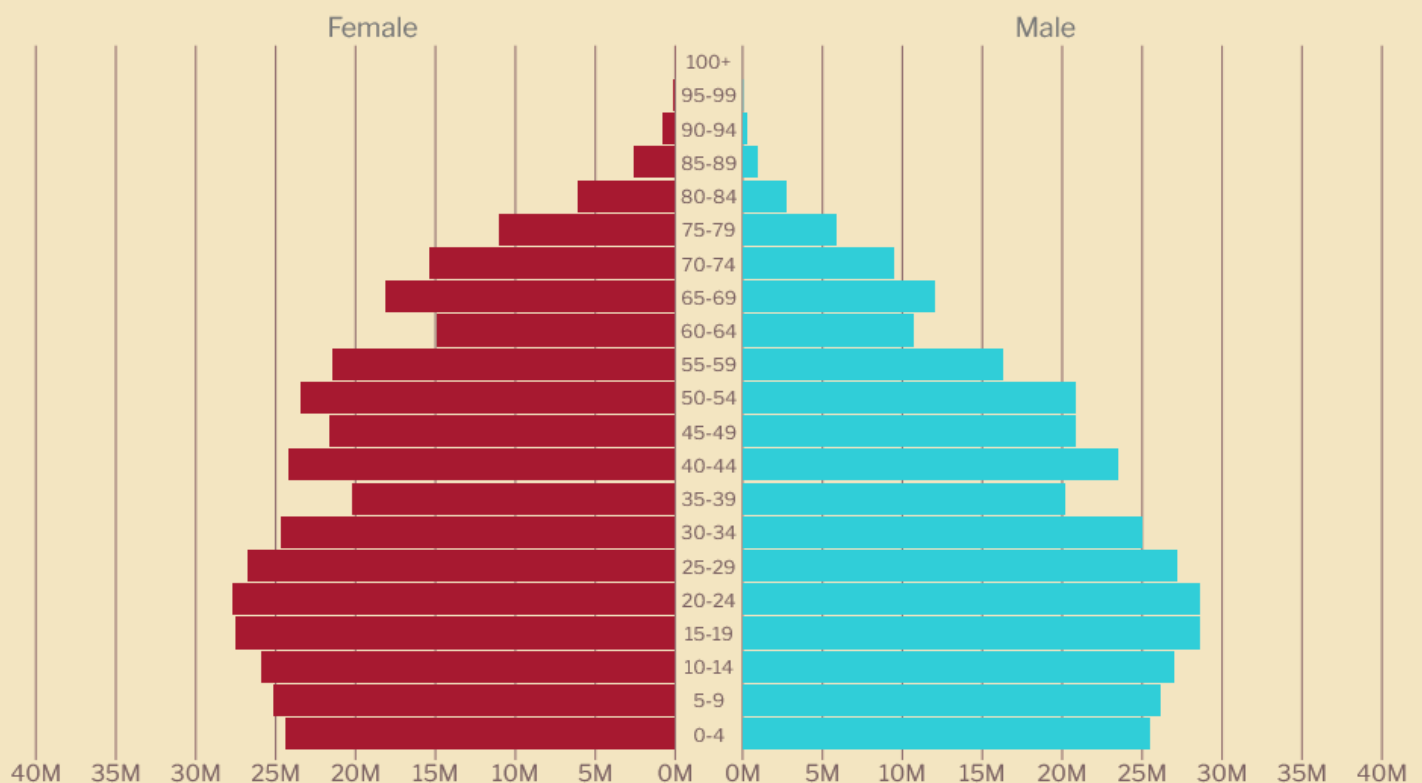


Data: [Open-Meteo API](#)



Based on the UN's World Population Prospects (2024), I created a population pyramid which shows the distribution of population by age group and gender from 1960 to 2020. Click [here](#) for the D3-only version and [here](#) for the D3/React version.

Europe's Population by Age and Gender (1980)



1960

1980

2000

2020

Europe



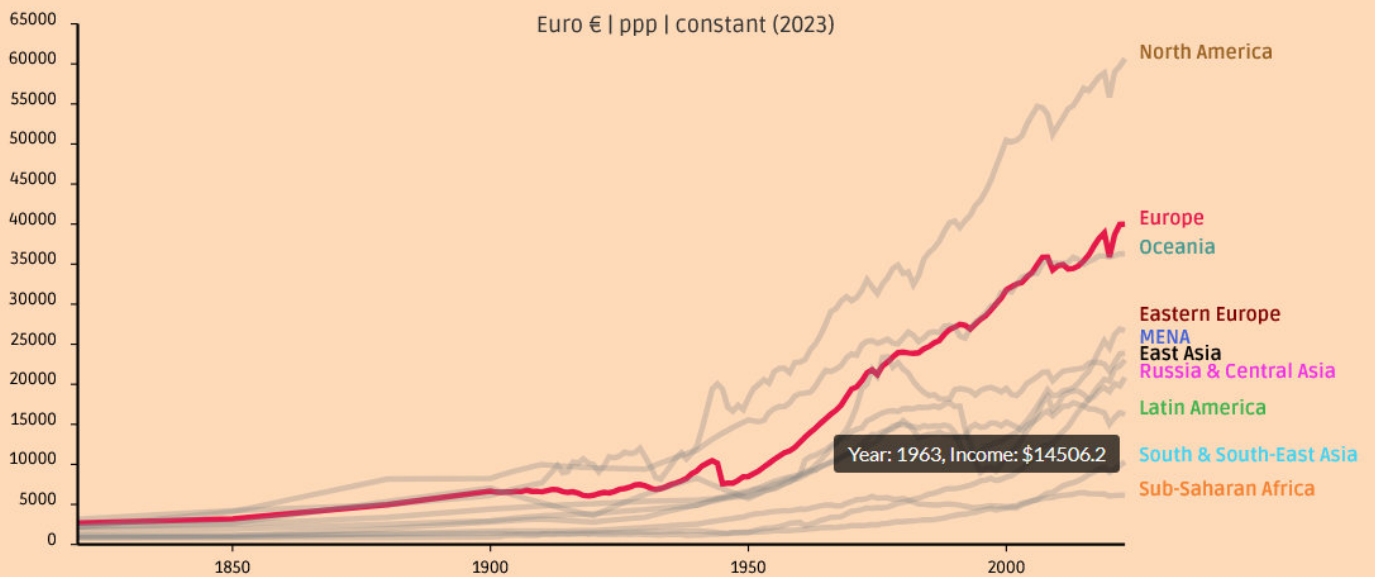
Data is from the UN's World Population Prospects 2024



Based on the [World Inequality Database](#), I created this [interactive line chart](#) with D3.js and Svelte. The user can explore each line – i.e. the average incomes for each region – by hovering over them, which highlights the region's line and shows the datapoint's info (year and income).

Average Income Per Adult

Euro € | ppp | constant (2023)



Visualization: Alexandre Bovey

Data: World Inequality Database, ranging from 1820 to 2023

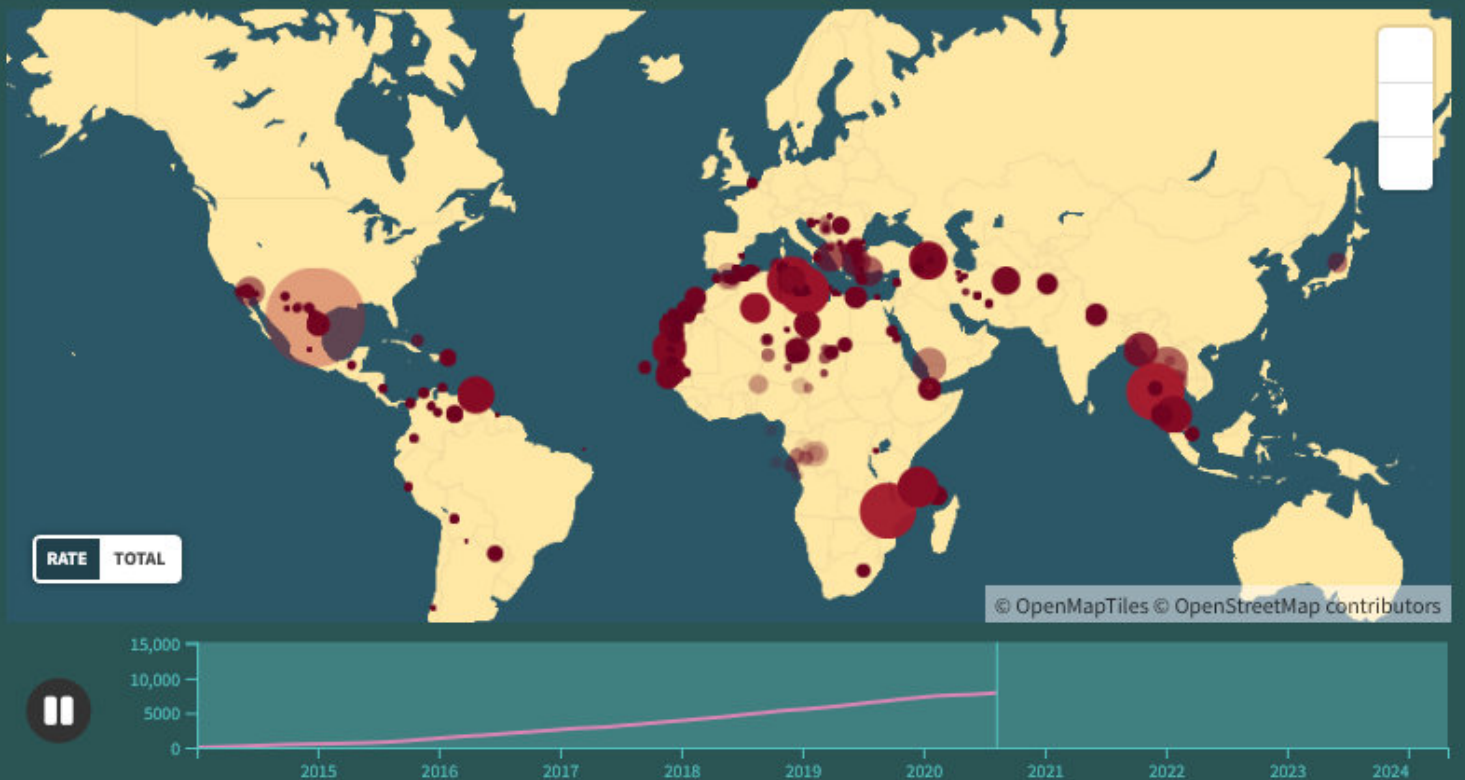


alexandre-bovey.com

This [animated map](#) – created with Flourish – allows the user to examine the geographic distribution of casualties over the span of a decade, with the possibility to zoom in and out, pause, and pick between rate and total.

A Decade of Migrant Deaths 2014–2024

The Missing Migrants Project has recorded the deaths of 65,036 people since 2014.



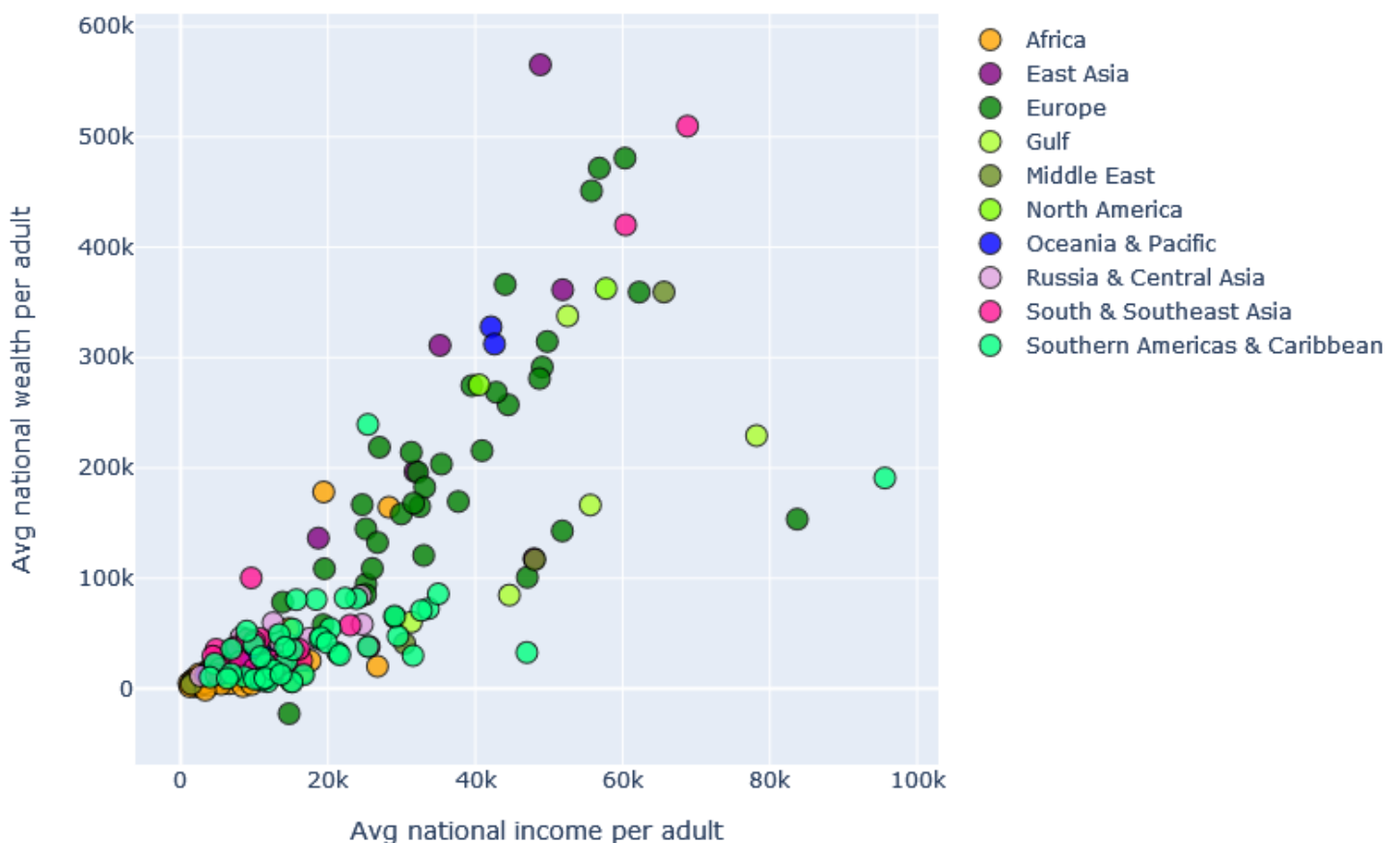
Source: [IOM's Missing Migrants Project](#)
Created by: Alexandre Bovey



alexandre-bovey.com

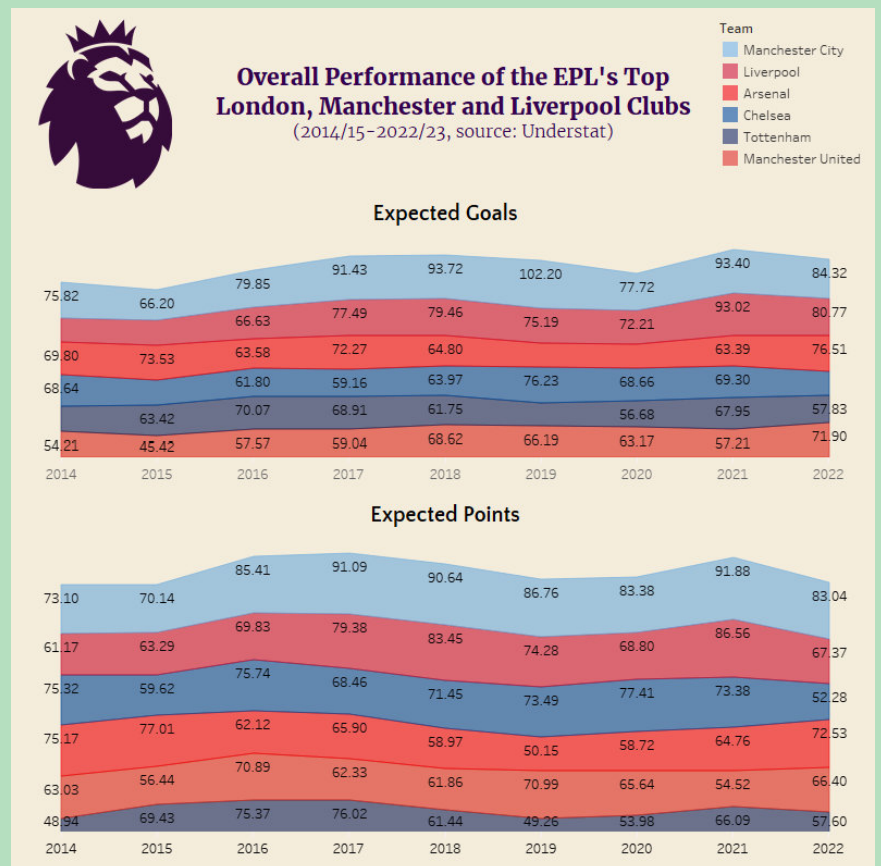
Based on data from the [World Inequality Database](#), this interactive page (HTML file) - created with Python's Plotly library - lets the user explore the various groups (i.e. country regions) and their respective data points in the scatterplot, zoom in and out for certain sections of the chart and download it as a PNG file.

International Wealth & Income Inequality in 2021

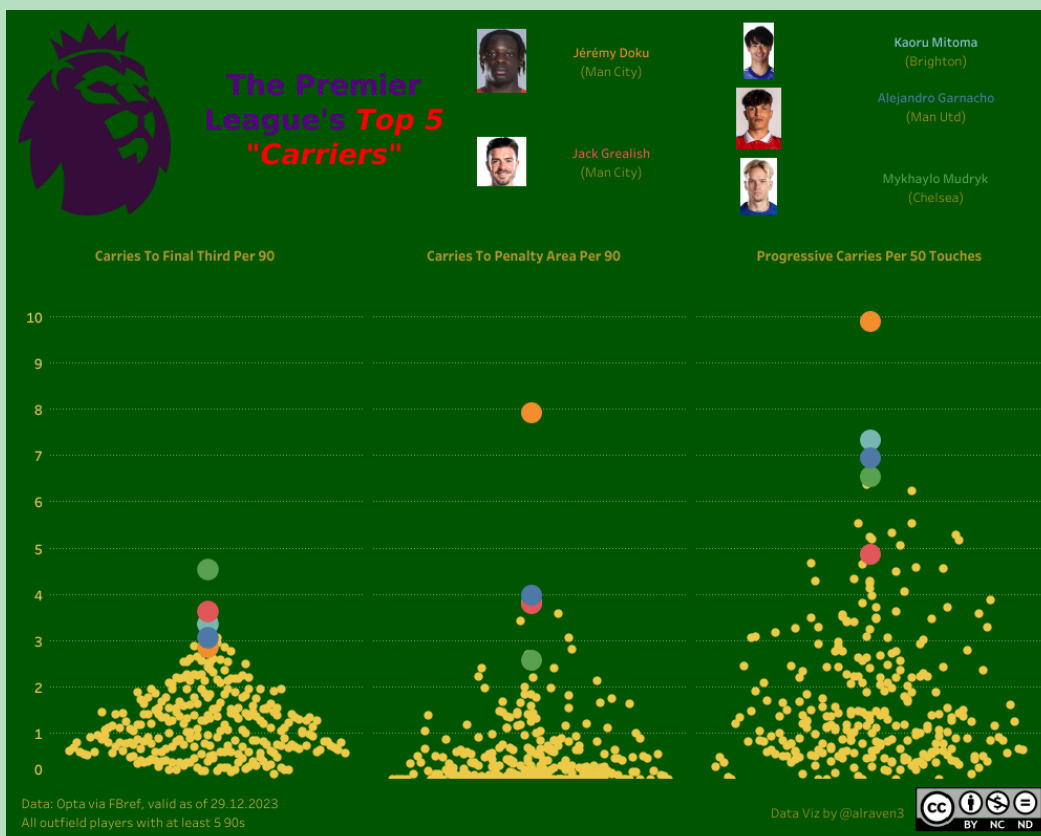


[Tableau Public](#) lets the user explore the charts, which makes the visualization more insightful and transparent!

[Check it out here!](#)



[Check it out here!](#)

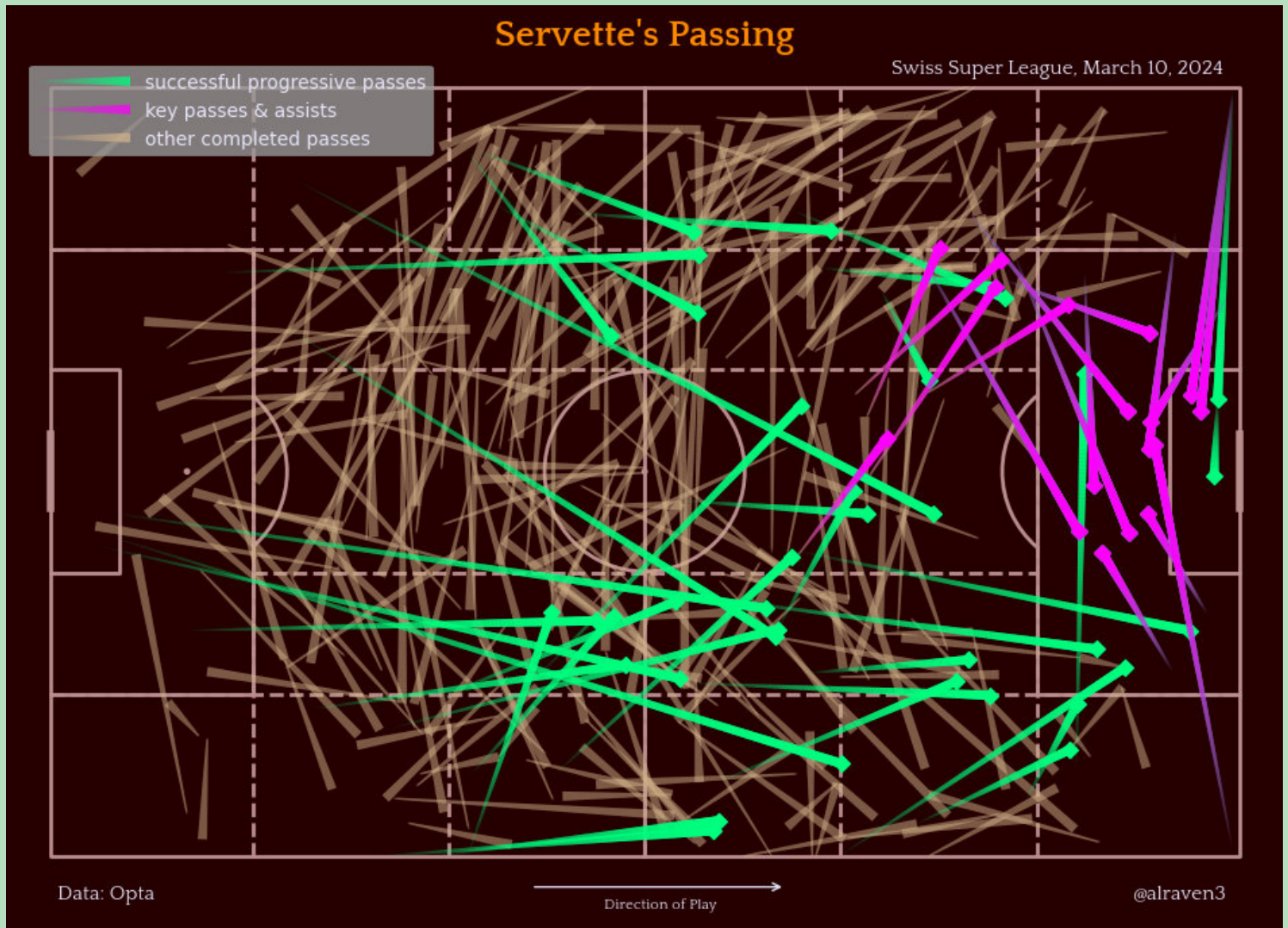


alexandre-bovey.com

Football Visuals

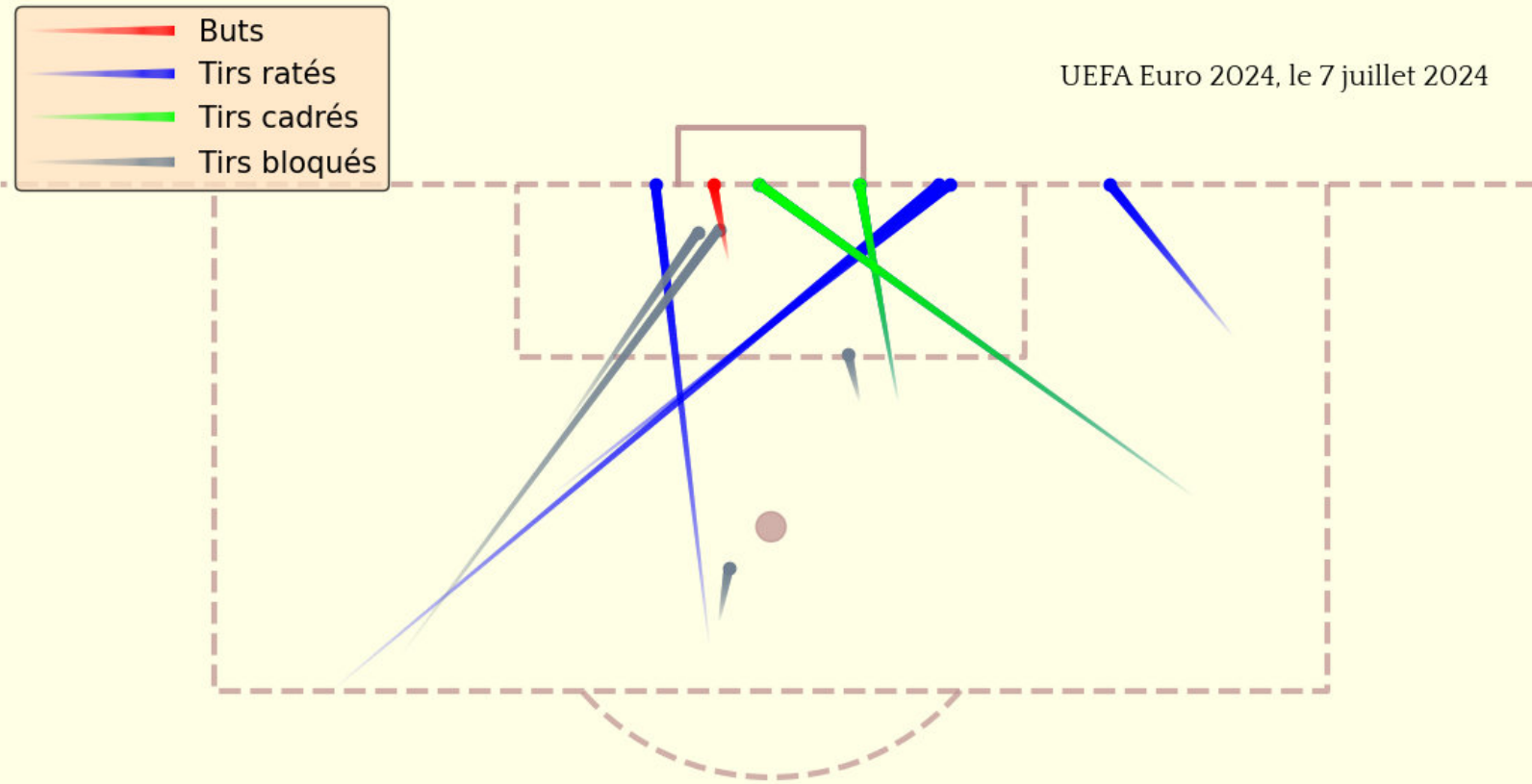
I have created an extensive set of [Python codes](#) for football analytics, including the following event data maps that visualize a team or player's actions during a game. These can be used for performance analysis and scouting in professional football (or journalism).

Passmaps, shotmaps & Progressive Action Maps



Les tirs de la Suisse

UEFA Euro 2024, le 7 juillet 2024



Source: Opta

Visualisation: Alexandre Bovey

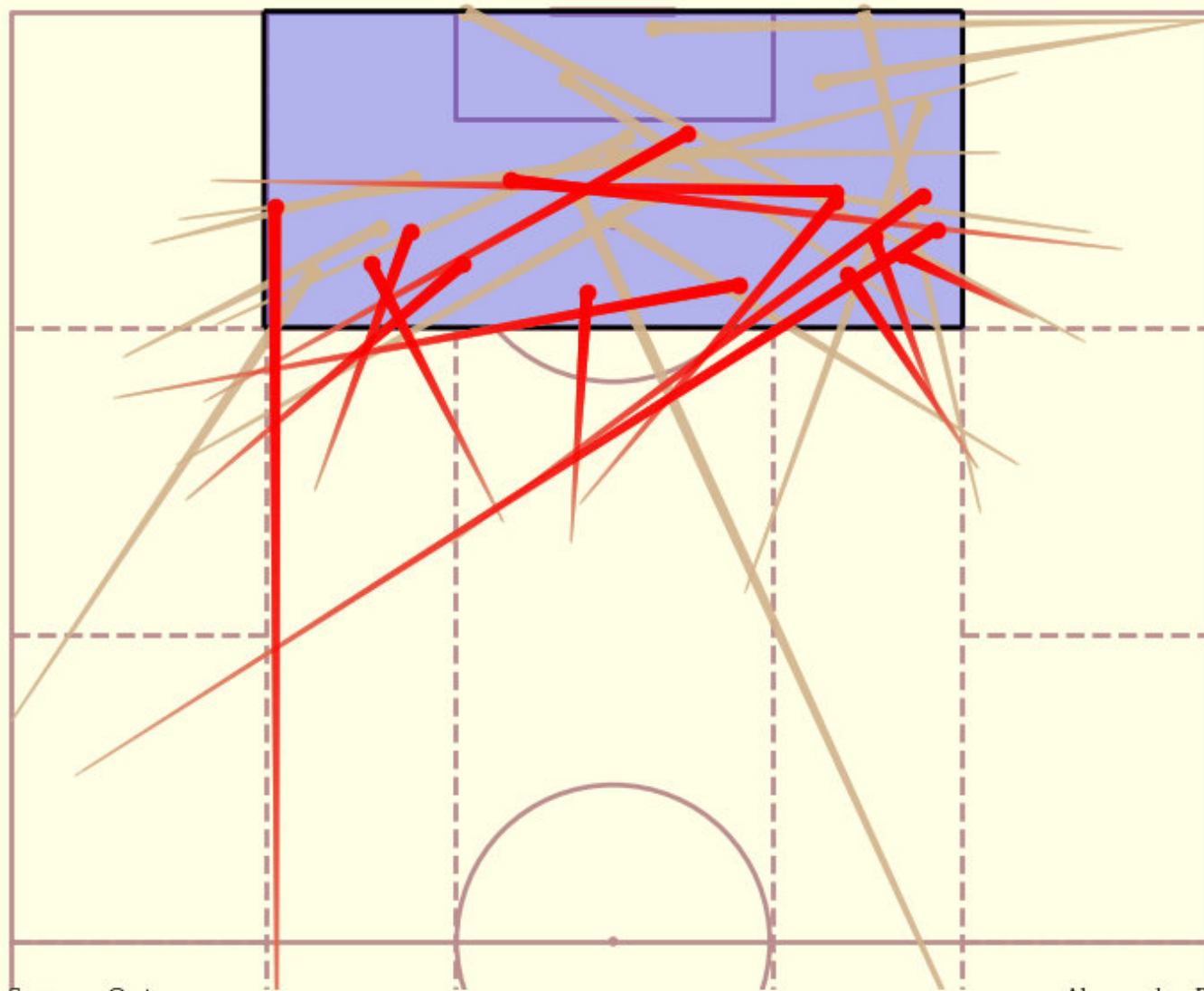


alexandre-bovey.com

Les passes dans la surface adverse: Suisse

Passes réussies
Autres passes

UEFA Euro 2024, le 7 juillet 2024



Source: Opta

Alexandre Bovey



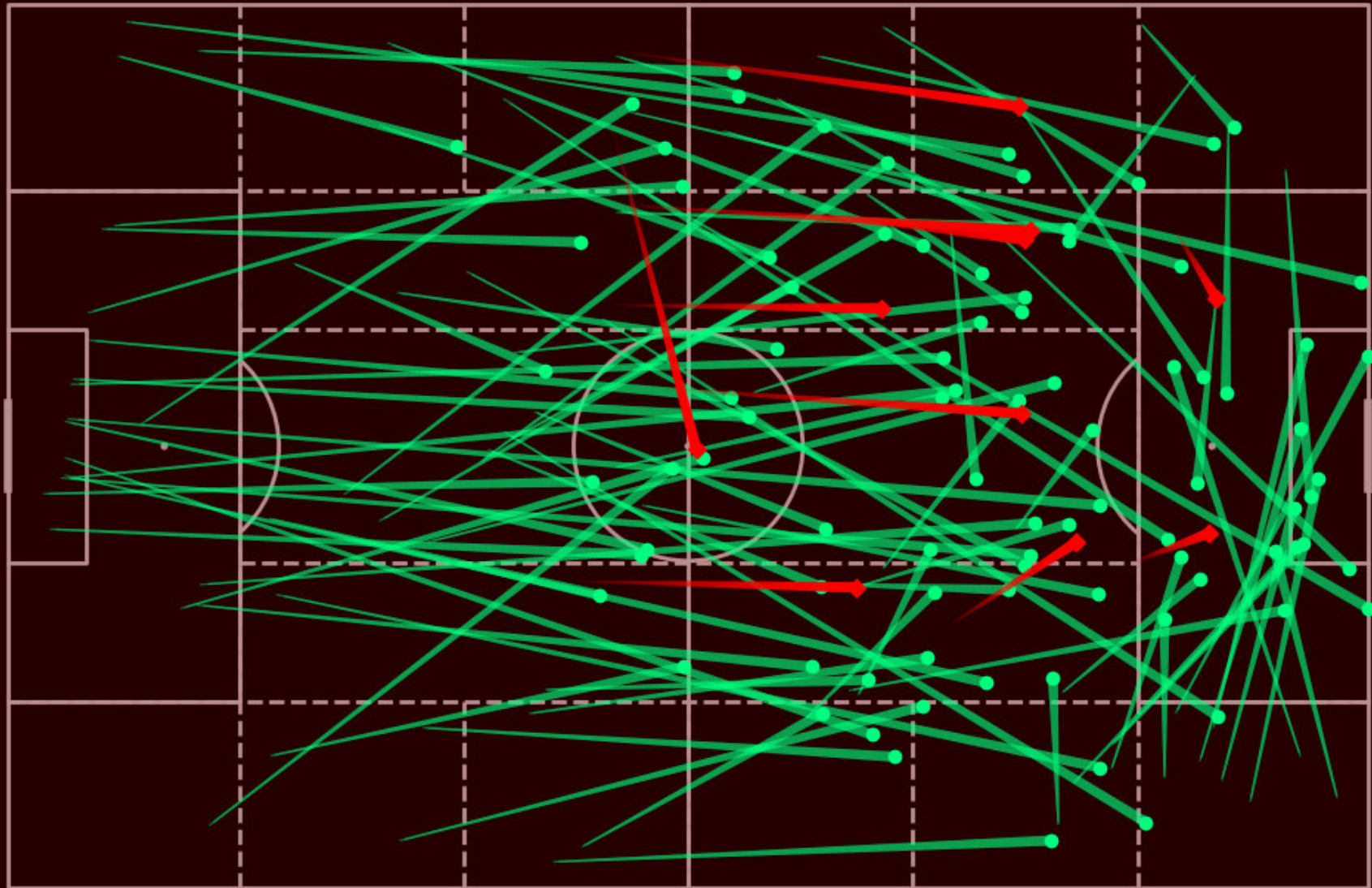
alexandre-bovey.com

Lausanne-Sport's Progressive Actions Map

progressive carries
progressive passes

FC Lausanne-Sport

Swiss Super League, March 10, 2024



Data: Opta

Direction of Play

@alraven3

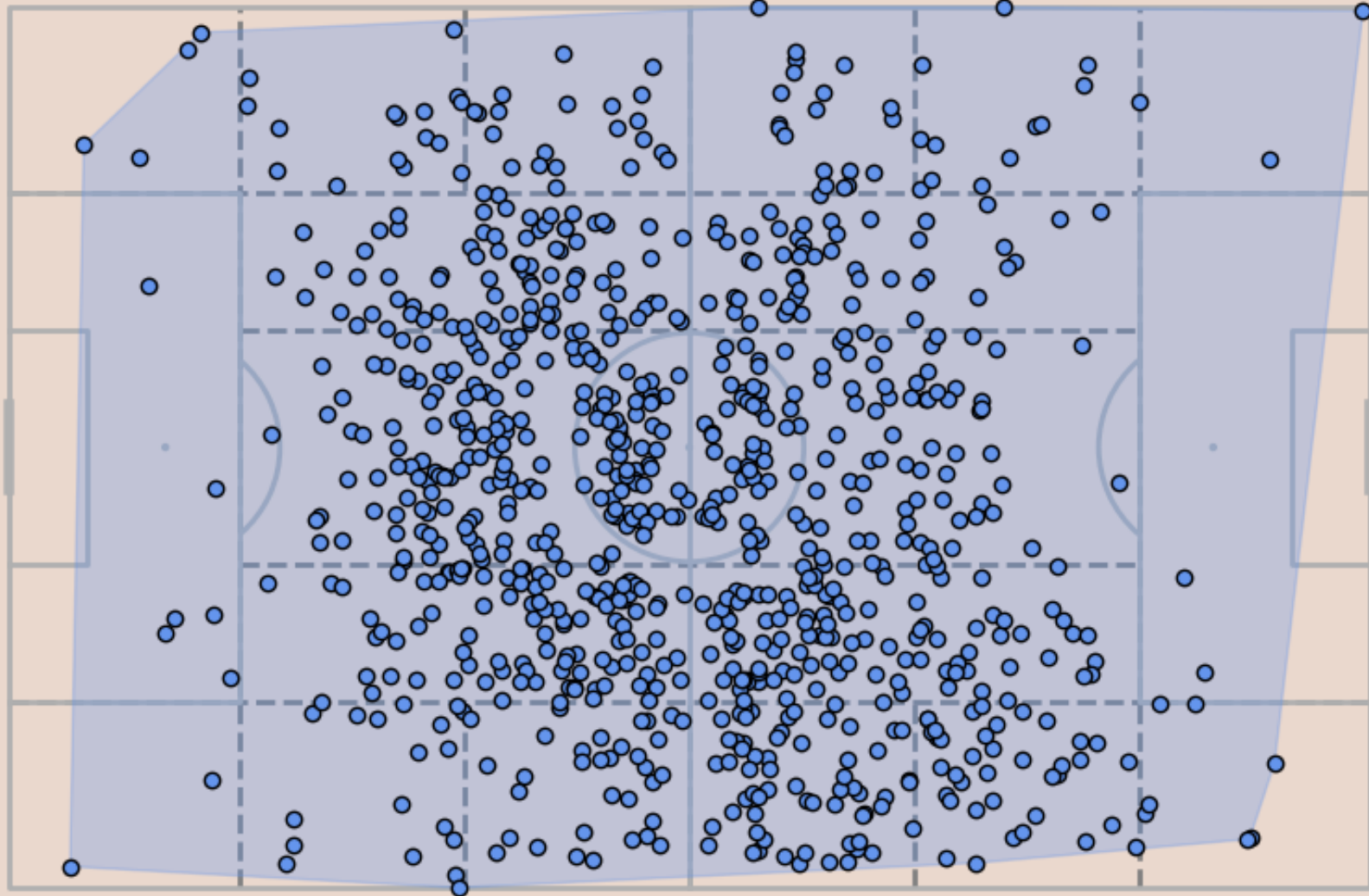


alexandre-bovey.com

Convex Hulls

Federico Redondo's Passing - Convex Hull

Argentinos Juniors - 21 appearances, 8 90's - Primera División, 2023



Data: Opta

@alraven3



Heatmaps

