

INFORM EU Capacity building

Data visualisation

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AGENDA

- Introduction by DG MARE
- Introduction to the topic & objectives of the session
- Data selection
- Data visualisation
- Q&A / sharing of experience
- Conclusions


Data visualisation – Where do we begin?

- *“Creating charts or graphs to show patterns or outliers to your audience that may not be visible in ‘raw’ data”*
 - What data are we working with?
 - What do we want to highlight?
 - Who are we communicating with and why?
 - What format best communicates with my audience?
 - What format best supports what I’m trying to say?

Data selection

- **When selecting your data consider:**
 - **Audience** – Who are you talking to? Why are they interested?
 - **Purpose** – What information or message is your data supposed to communicate?
 - **Balance & Fairness** – Does your data tell the full story? Is it well-balanced?
 - **Ethics** – Will the data you are sharing have ethical implications?

YOUR TURN – Define: The audience & the purpose

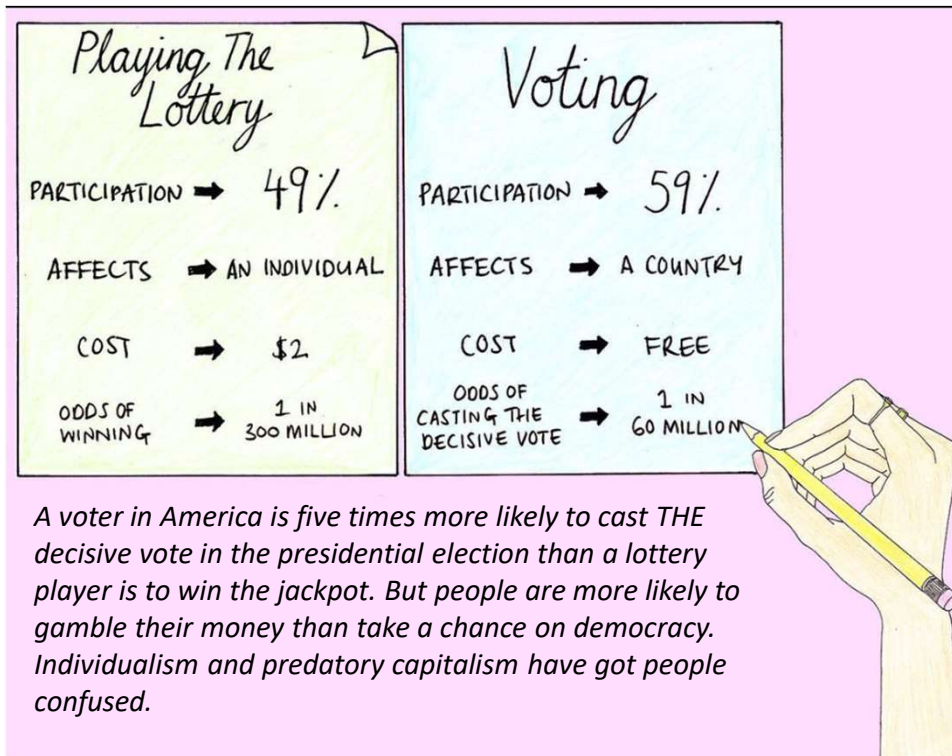


Playing The Lottery	Voting
PARTICIPATION → 49%	PARTICIPATION → 59%
AFFECTS → AN INDIVIDUAL	AFFECTS → A COUNTRY
COST → \$2	COST → FREE
ODDS OF WINNING → 1 IN 300 MILLION	ODDS OF CASTING THE DECISIVE VOTE → 1 IN 60 MILLION

Source: @monachalabi

A voter in America is five times more likely to cast THE decisive vote in the presidential election than a lottery player is to win the jackpot.

YOUR TURN – Define: The audience & the purpose



Source: @monachalabi

Audience: "General public" in the US, eligible to vote

Purpose: Encourage voting, highlight priority put on voting, highlight the power of the individual vote, educate citizens about voting

Data visualisation - Tools

- **Excel**
- **Canva (using the Flourish integration)**
- **Stata**
- **PowerBI**
- **Tableau**
- **Looker studio**
- **Ggplot2 (uses R)**
- **Matplotlib (uses Python)**

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ENTRY LEVEL

Basic

Accessible

***Free**

Data visualisation - Tools

- Excel
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- **Stata**
- **PowerBI**
- **Tableau**
- **Looker studio (former Google Studio)**
- Ggplot2 (uses R)
- Matplotlib (uses Python)

MID LEVEL

Basic - Medium

Powerful

***Free / Subscription**

Data visualisation - Tools

- Excel
- Canva (using the Flourish integration)
- Stata
- PowerBI
- Tableau
- Looker studio
- **Ggplot2 (uses R)**
- **Matplotlib (uses Python)**

EXPERT LEVEL
Requires coding
Powerful
Open source

Data visualisation – Scenario

- **You have a national programme.**
- **Let's use Local Action Groups as an example.**
- **Your objective is to visualise the progress of the programme.**
- **You have three metrics.**
 - Funds committed
 - Funds spent
 - Projects funded

Data visualisation – Scenario

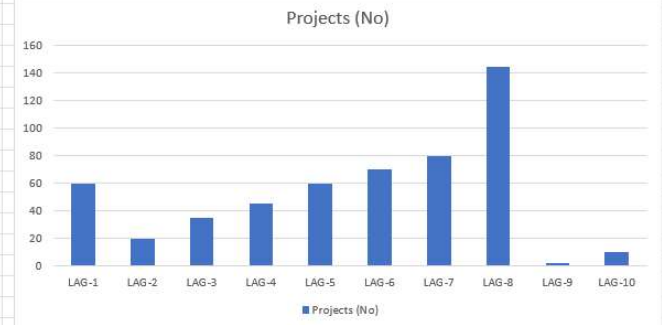
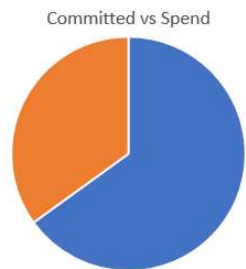
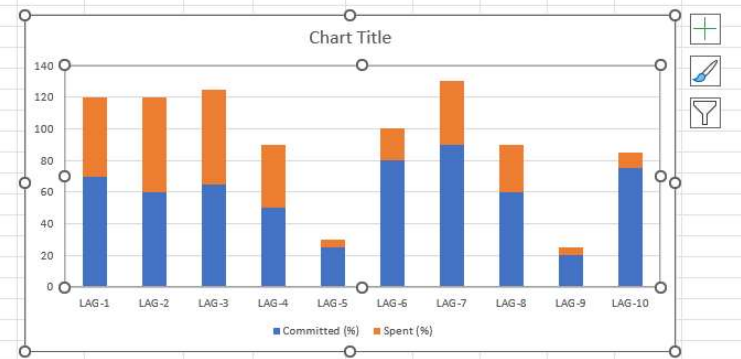
- **Your data**
- **How might we visualise this in Excel?**

	Committed (%)	Spent (%)	Projects (No)
LAG-1	70	50	60
LAG-2	60	60	20
LAG-3	65	60	35
LAG-4	50	40	45
LAG-5	25	5	60
LAG-6	80	20	70
LAG-7	90	40	80
LAG-8	60	30	145
LAG-9	20	5	2
LAG-10	75	10	10

Data visualisation – Scenario

- Excel
- Basic visualisations
- But does it create a picture of the data?
- Does it tell a story?

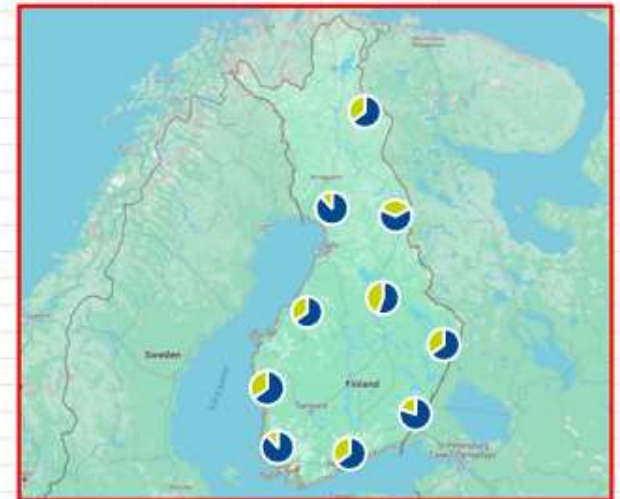
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Total	59.5	32	527



Data visualisation – Scenario

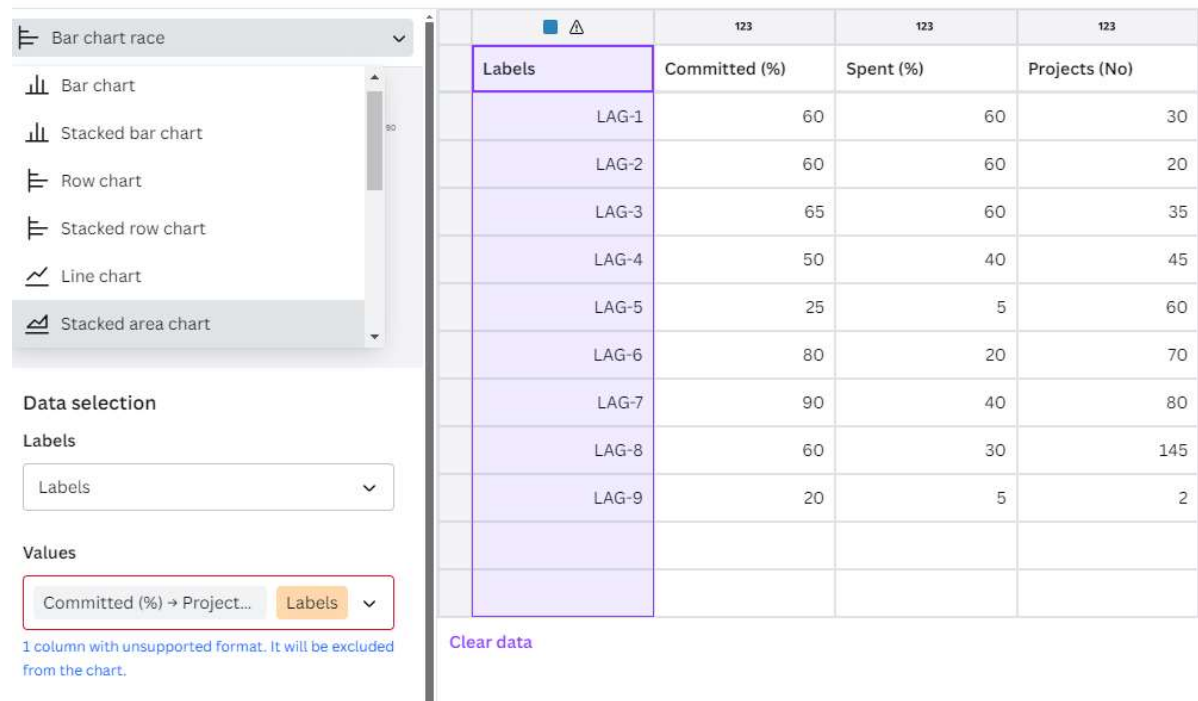
- **Excel**
- **Mapping tools for better visualisation**
- **Excel add-ins**
- **Pros – cheap and connected to existing datasets**
- **Cons – not the easiest to use – outputs can be basic**

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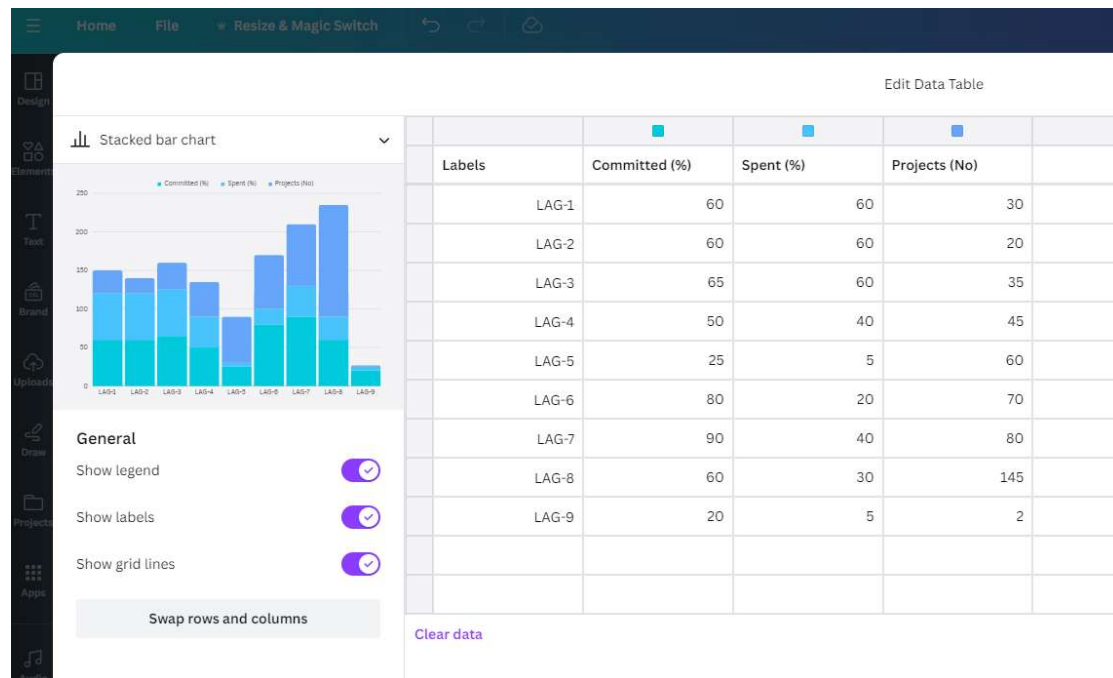
Data visualisation – Scenario

- Canva
- Import data directly from Excel (.csv)
- Easy to use interface



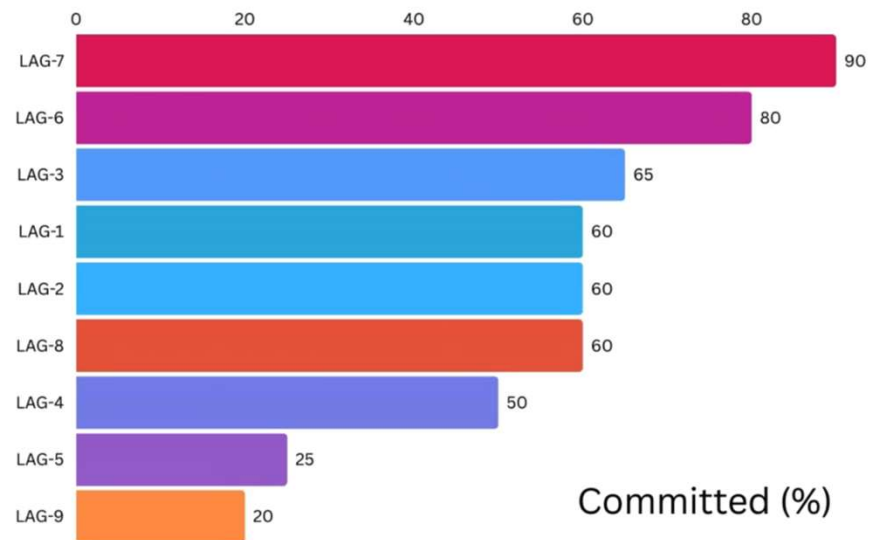
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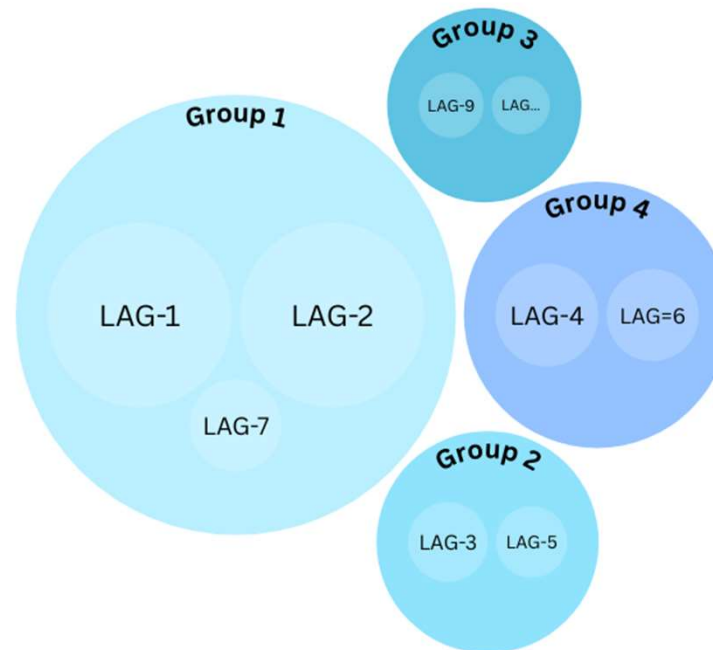
Data visualisation – Scenario

- **Canva**
- **Import data directly from Excel (.csv)**
- **Easy to use interface**
- **Several pre-set outputs including basic animation**



Data visualisation – Scenario

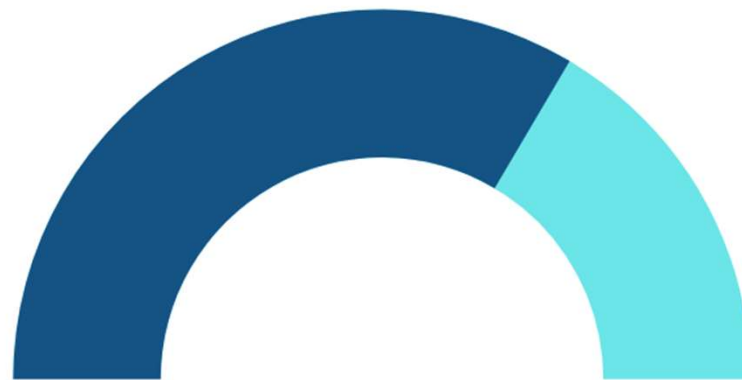
- **Canva**
- **Import data directly from Excel (.csv)**
- **Easy to use interface**
- **Several pre-set outputs including basic animation**
- **Group and visualise**



Data visualisation – Scenario

- **Canva**
- **Import data directly from Excel (.csv)**
- **Easy to use interface**
- **Several pre-set outputs including basic animation**
- **Group and visualise**
- **Make the visuals assessable**

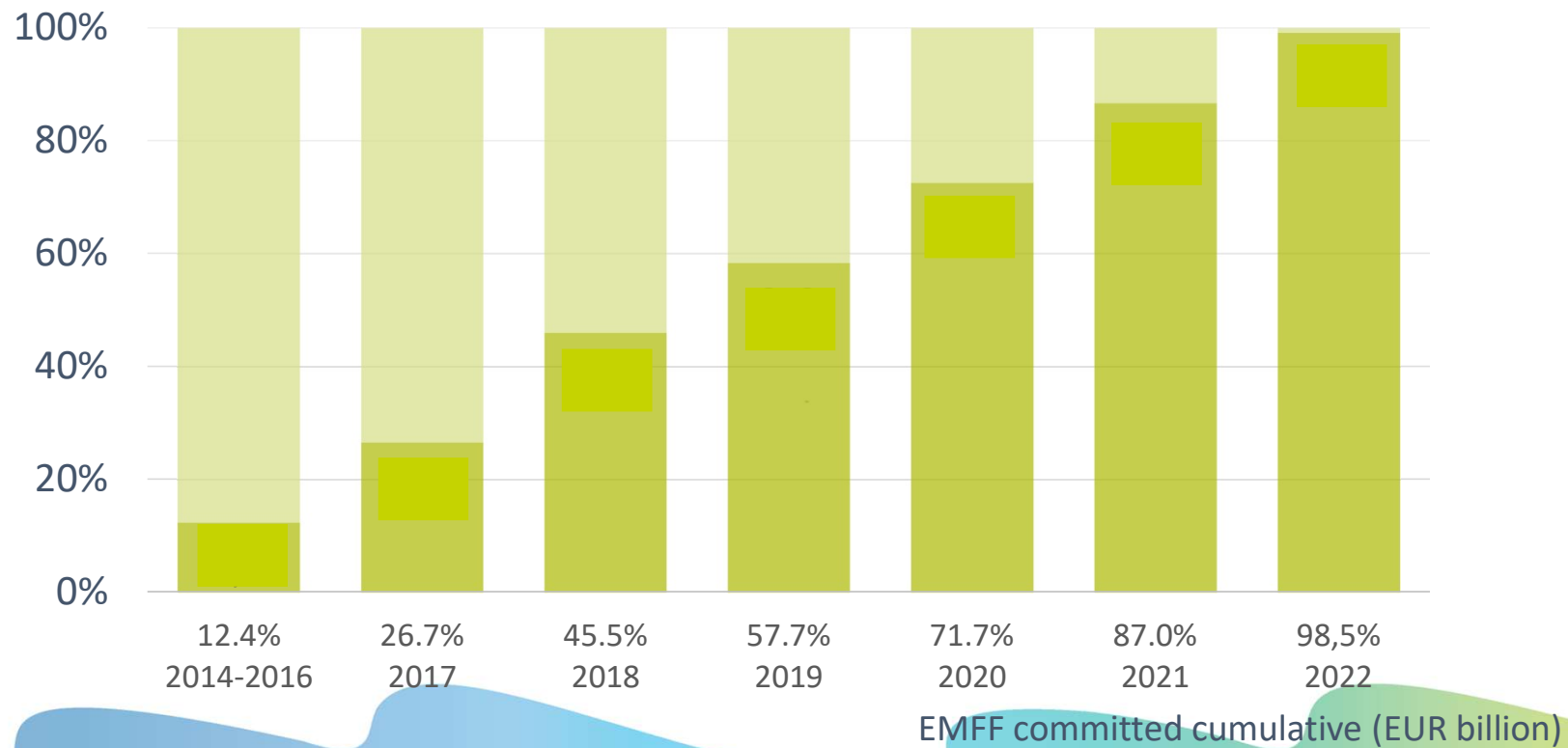
LAG-1 (Committed %)

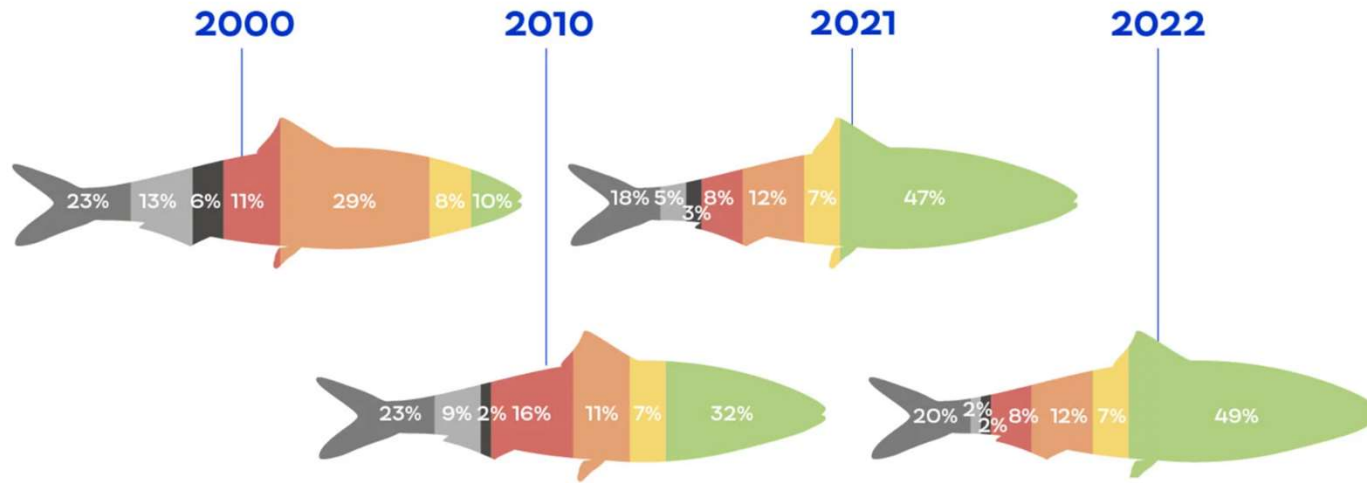


Data visualisation – Tell stories

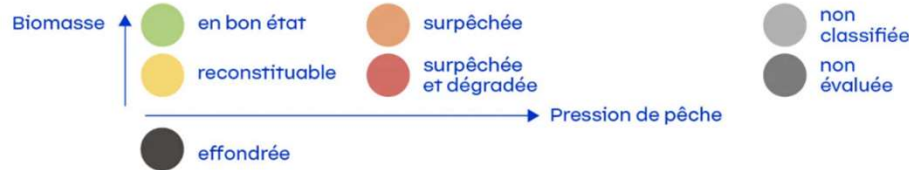
- **Comment title**
 - Use your dataset title to tell a story
- **Labels**
 - Label parts of your visualization to provide more information
 - Specific points, axes etc.
- **Highlighting**
 - Make certain parts of your data stand out
 - Draw attention to them

Commitments well on track





État des populations :

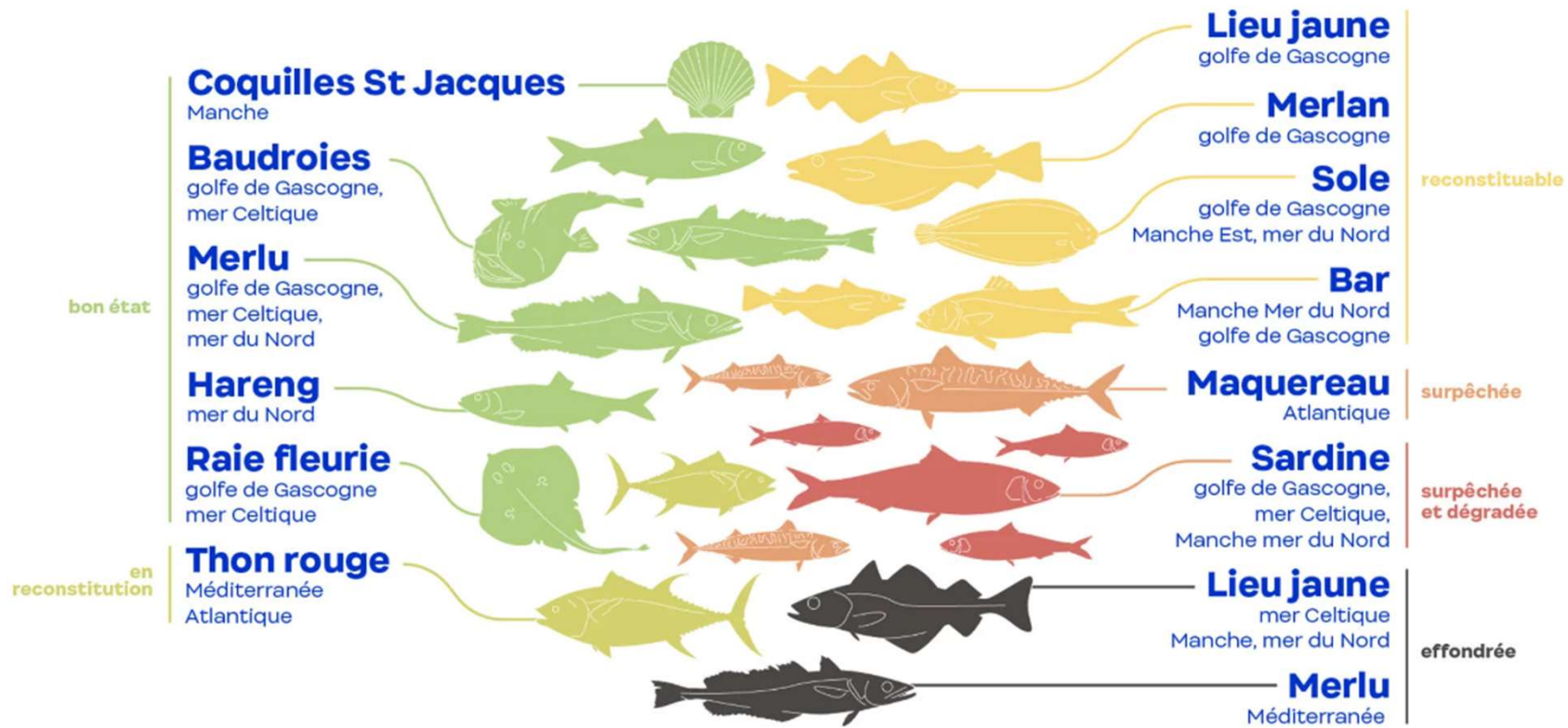


Bilan 2023 en France hexagonale : 56 % des volumes de poissons débarqués en 2022 proviennent de populations exploitées durablement. Une très légère progression.

Assessment of 2023 in mainland France: 56% of the fish landed in 2022 came from sustainably exploited populations. A very slight increase.

Evolution de l'état des populations de poissons exploitées en France hexagonale entre 2000 et 2022.
Crédit : Ifremer 2024, J. Barrault

Source: <https://www.ifremer.fr/fr/actualites/bilan-2023-en-france-hexagonale-56-des-volumes-de-poissons-debarques-en-2022-proviennent>



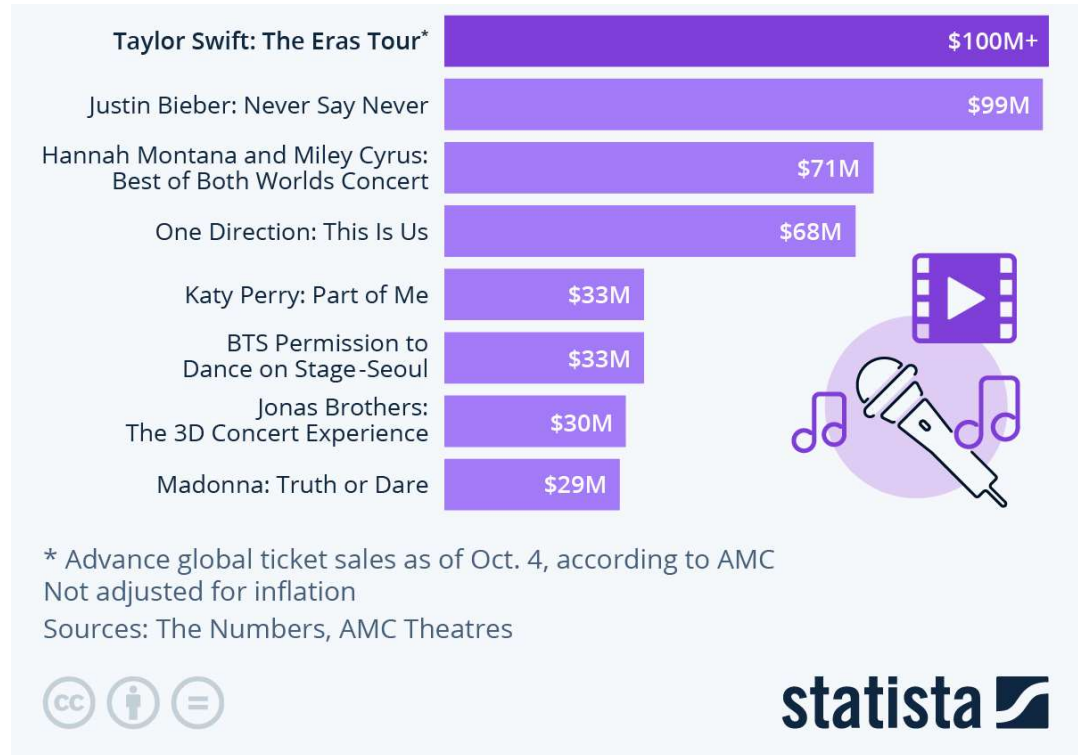
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YOUR TURN – Match the title

Option 1: 'The Eras Tour'
Already the Most Profitable
Concert Movie Ever

Option 2: Worldwide box office
revenue of the highest-grossing
music concert movies of all
time

Option 3: Analysis of 'The Eras
Tour' Concert Movie
Performance Metrics



YOUR TURN – Match the title

- Emphasises the success of the film
- Complements the information that is highlighted on the infographic
 - In bold text + darker purple
- Includes an opinion / comment on the information

'The Eras Tour' Already the Most Profitable Concert Movie Ever

Worldwide box office revenue of the highest-grossing music concert movies of all time



* Advance global ticket sales as of Oct. 4, according to AMC
Not adjusted for inflation

Sources: The Numbers, AMC Theatres



Q&A / Experience sharing



Conclusions

- **Data selection:** Be selective, consider what you are trying to do with the data overall, will impact each subsequent decision
- **Data processing:** Think about what you want from the end product, the resources you have available to invest (time, budget, skillset)
- **Data visualisation:**
 - Be aware of different tools – cost, accessibility, skill level
 - Consider what visualisations make the important part of your data “pop”
 - Don’t be afraid to keep it simple

Conclusions

- **HOMEWORK (Or further food for thought 😊):**
 - Think about one of your own datasets
 - Define a specific audience + purpose to communicate said data with them
 - Define (maybe even develop!) what visualisation is best suited
- **Share best practices with each other**
- **Additional resource:**
 - [Introducing data visualisation](#)
 - Course from the official portal for European data - 10 lessons (online webinars)