Applying data visualisation best practices on use cases

Direction Access to and Reuse of Public Information

Unit EU Open Data and CORDIS

Sector EU Open Data

ISA2 programme

What's ISA2?

ISA2 supports the development of **digital solutions** enabling public administrations, businesses and citizens in Europe to benefit from **interoperable cross-border** and **cross-sector public services.**

How OP is involved in ISA2?

OP is aiming at improving open services in the areas of:

- Data visualisation
- Linked open data
- Persistent identification

EU DataViz 2019 conference

publications.europa.eu/en/web/eudataviz/home

Agenda

09:00	Introduction
	Makeover 1: CO2 emissions per capita
10:30	Coffee break
	Makeover 1: presentation
	Makeover 2: 2020 Headline Indicators
12:00 – 13:00	Lunch
	Makeover 2
	Makeover 2: presentation
14:30	Coffeebreak
	Makeover 3: Non-participation in tourism
	Makeover 3: presentation
16:30	Q&A

INTRODUCTION

Participants

Institution/DG and role?

What data and tools do you work with?

Experience in data visualisation?

Expectations for today?

MAKEOVERS

Makeovers
Learning by doing

Based on Makeover
Monday
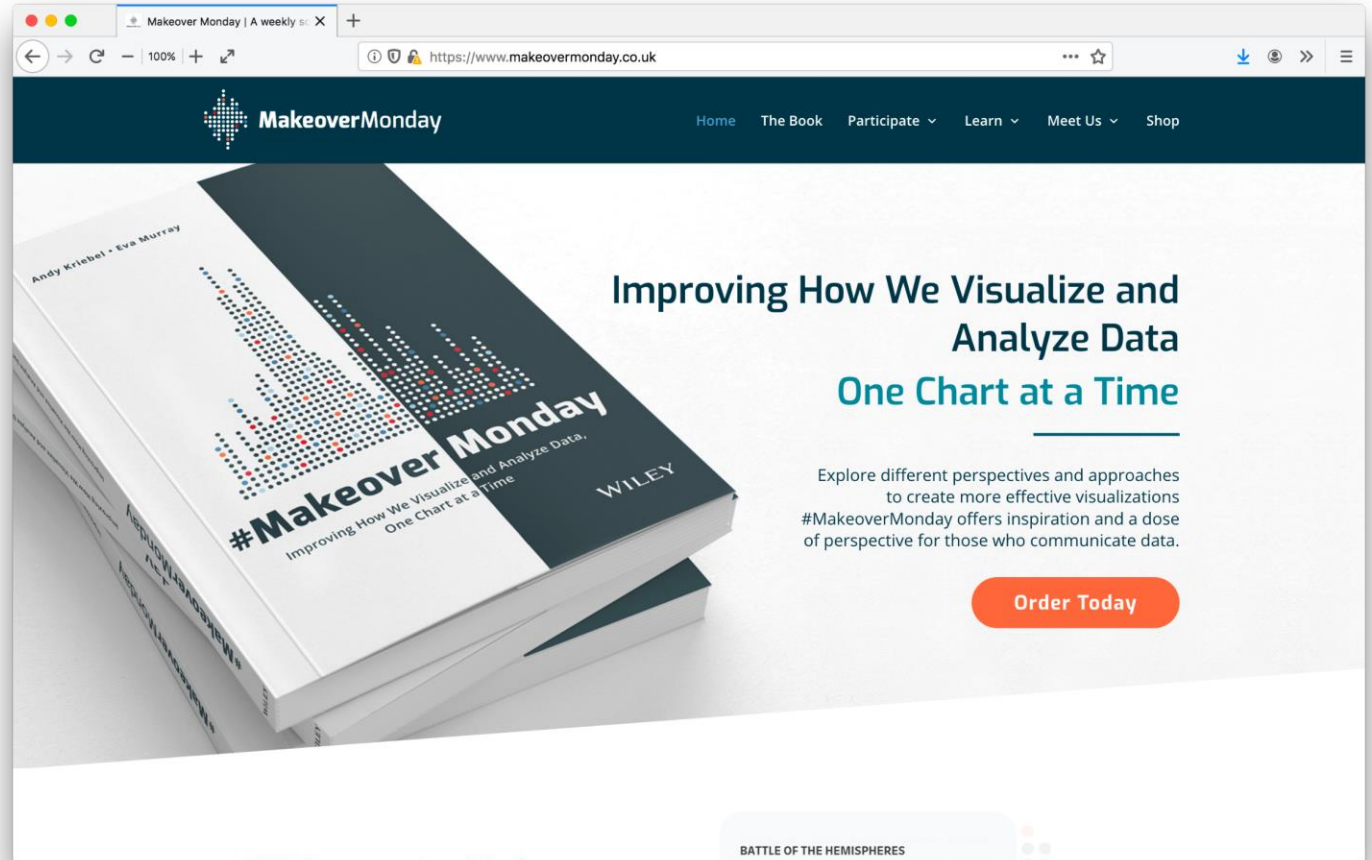
Makeovers
Learning by doing

Makeover Monday

trimydata.com

1. List what works well
2. List what could be improved
3. Make an alternative visualisation

Makeovers
Learning by doing

Makeover Monday

1. Inspect, understand the data
2. (add additional data)
3. Find an angle (+ target audience)
4. Filter, aggregate, reshape data
5. Choose chart type(s)
6. Sketch/develop visualisation(s) (tool is free to choose!)
7. Share visualisation
8. Get feedback

3 tools

Visual Vocabulary
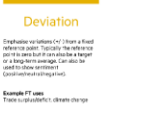
Choose a chart type

By the Financial Times

3 tools

[Chartmaker Directory](#)

By Andy Kirk

How to make chart x with tool y

3 tools

Data Visualization
Checklist

By the Stephanie
Evergreen and Ann K.
Emery

Rate your visualisation

Learn basic rules of
visualisation design

datavizchecklist.stephanieevergreen.com

Data Visualization Checklist

by Stephanie Evergreen & Ann K. Emery
February 2018

This checklist is meant to be used as a guide for the development of high impact data visualizations. Rate each aspect of the data visualization by circling the most appropriate number, where 2 points means the guideline was fully met, 1 means it was partially met, and 0 means it was not met at all. n/a should not be used frequently, but reserved for when the guideline truly does not apply. For example, a pie chart has no axes lines or tick marks to rate. If the guidelines has been broken intentionally to make a point, rate it n/a and deduct those points from the total possible. Refer to the Data Visualization Anatomy Chart on the last page for guidance on vocabulary and the Resources at the end for more details.

	Guideline	Rating
Text Graphs don't contain much text, so existing text must encapsulate your message and pack a punch.	**6-12 word descriptive title is left-justified in upper left corner** Short titles enable readers to comprehend takeaway messages even while quickly skimming the graph. Rather than a generic phrase, use a descriptive sentence that encapsulates the graph's finding or "so what?" Western cultures start reading in the upper left, so locate the title there.	2 1 0 n/a
	Subtitle and/or annotations provide additional information Subtitles and annotations (call-out text within the graph) can add explanatory and interpretive power to a graph. Use them to answer questions a viewer might have or to highlight specific data points.	2 1 0 n/a
	Text size is hierarchical and readable Titles are in a larger size than subtitles or annotations, which are larger than labels, which are larger than axis labels, which are larger than source information. The smallest text - axis labels - are at least 9 point font size on paper, at least 20 on screen.	2 1 0 n/a
	Text is horizontal Titles, subtitles, annotations, and data labels are horizontal (not vertical or diagonal). Line labels and axis labels can deviate from this rule and still receive full points. Consider switching graph orientation (e.g., from column to bar chart) to make text horizontal.	2 1 0 n/a
	Data are labeled directly Position data labels near the data rather than in a separate legend (e.g., on top of or next to bars and next to lines). Eliminate/embed legends when possible because eye movement back and forth between the legend and the data can interrupt the brain's attempts to interpret the graph.	2 1 0 n/a
	Labels are used sparingly Focus attention by removing the redundancy. For example, in line charts, label every other year on an axis. Do not add numeric labels *and* use a y-axis scale, since this is redundant.	2 1 0 n/a

Makeover 1
CO2 EMISSIONS PER CAPITA
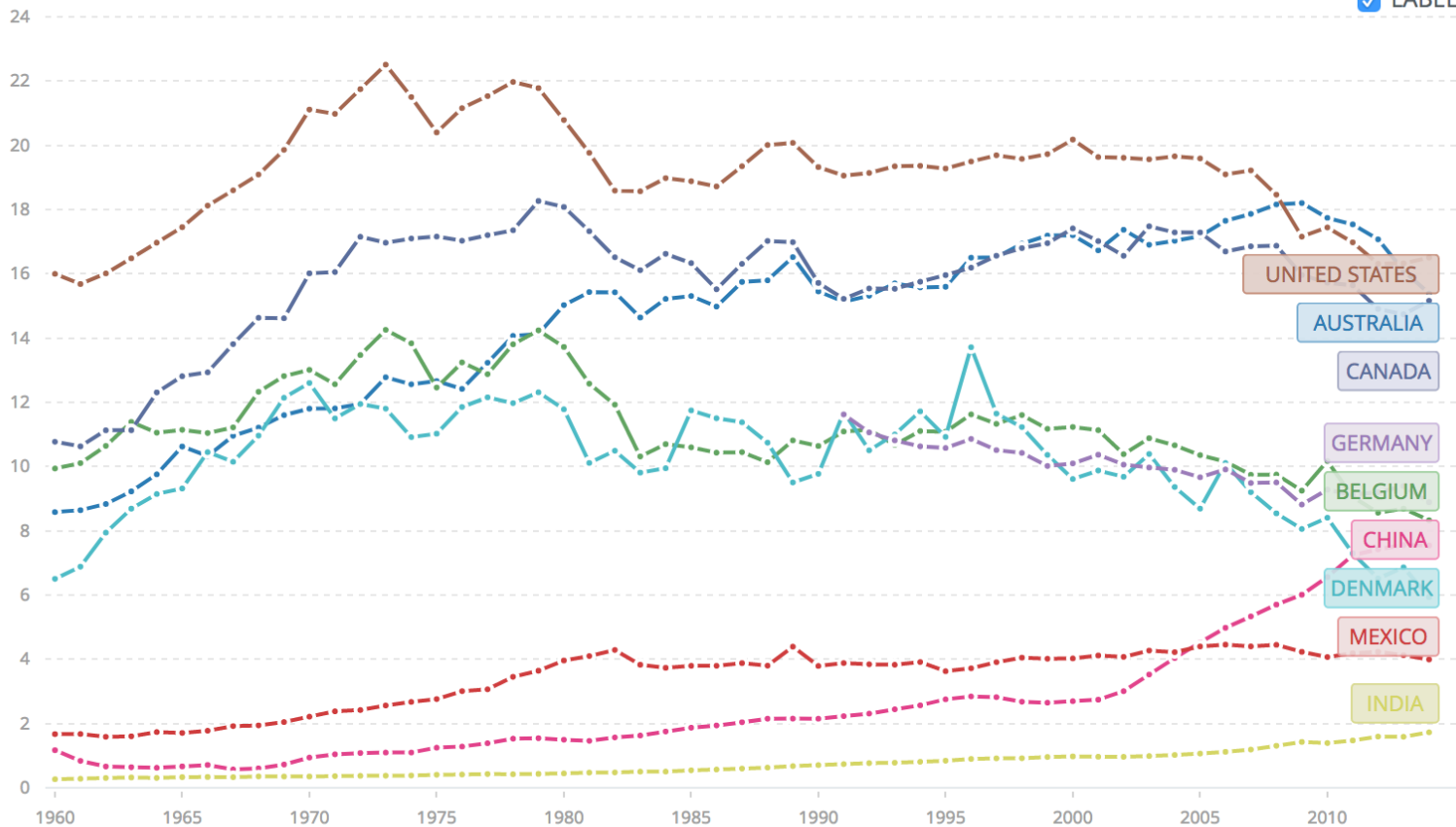
Makeover 1
CO2 emissions per capita

Data: tinyurl.com/yxc9urym

1. Inspect, understand the data
2. (add additional data)
3. Find an angle (+ target audience)
4. Filter, aggregate, reshape data
5. Choose chart type(s)
6. Sketch/develop visualisation(s) (tool is free to choose!)
7. Share visualisation
8. Get feedback

Showtime!

www.makeovermonday.co.uk/gallery

trimydata.com/2019/05/26/mm2019-week22/

Makeover 2
2020 HEADLINE INDICATORS

Europe 2020 headline indicators: target values and progress since 2008 (2017 data)

The **employment** target is within reach, if it continues to grow at the current pace. The EU has already met the tertiary **education** target and is approaching the target of early leavers from education and training.

Europe has made substantial progress in the area of **climate change and energy** and is on track with the Europe 2020 greenhouse gas, renewable energy and energy efficiency targets.
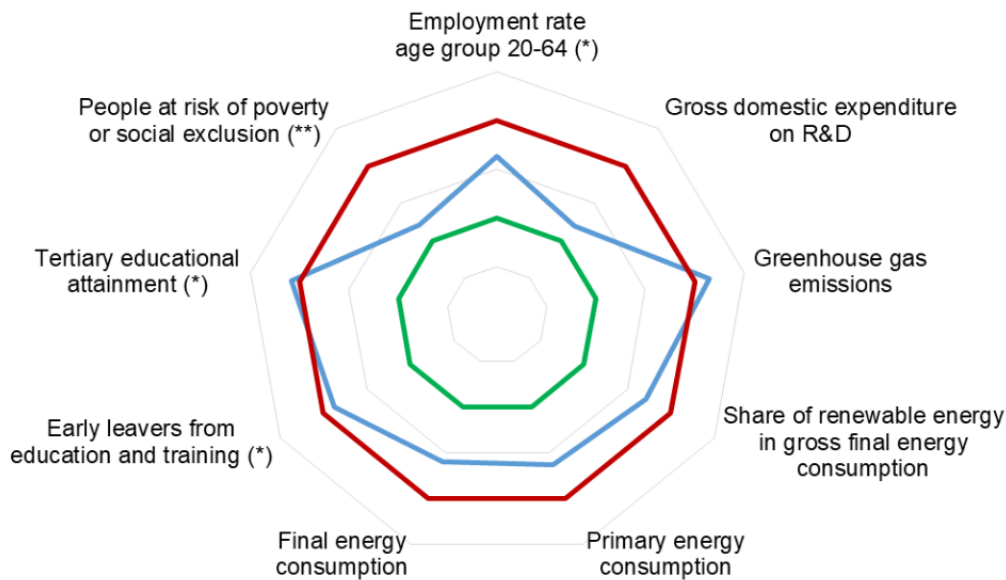
Investment in **R&D** as well as **risk of poverty and social exclusion** remain at a distance from targets.

Data: tinyurl.com/yxc9urym

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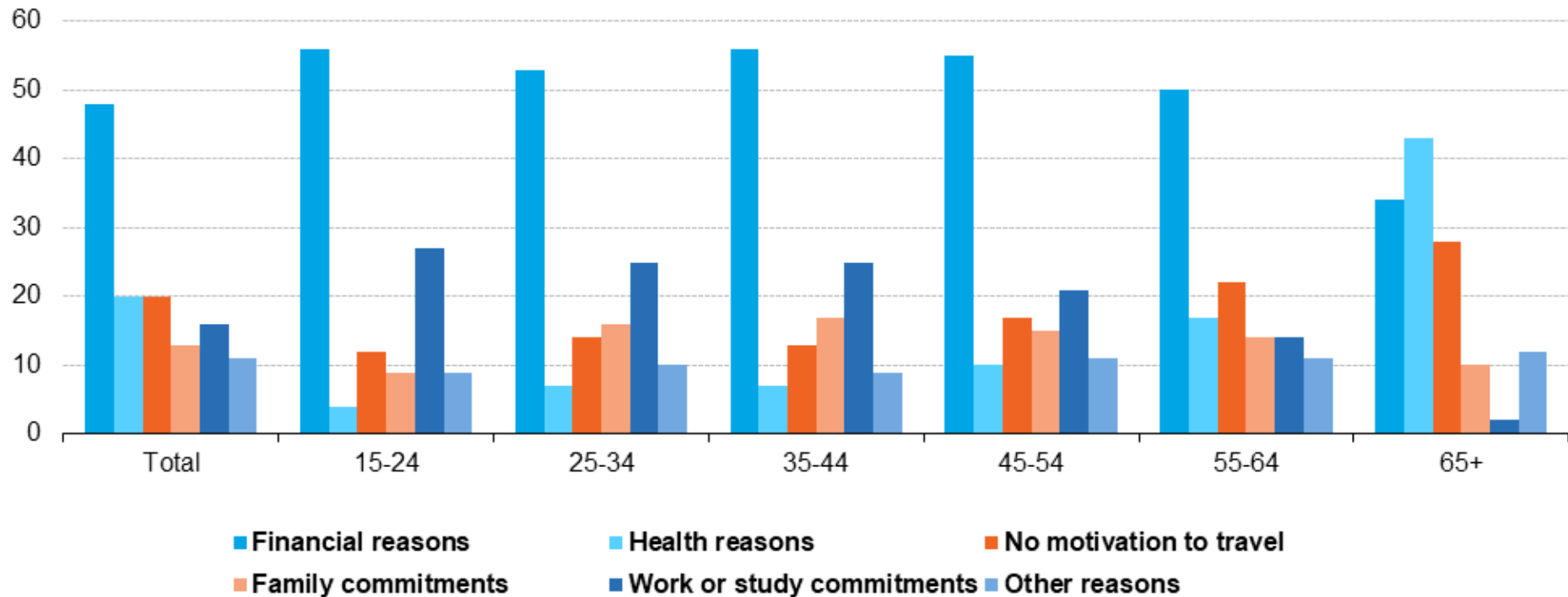8. Get feedback

Showtime!

Makeover 3
NON-PARTICIPATION IN TOURISM

Makeover 3
Non-participation in tourism

Main reasons reported for not participating in tourism by age group, EU-28, 2016 (%)

Source: Eurostat (online data code: tour_dem_npage)

Data: tinyurl.com/yxc9urym

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5. Choose chart type(s)
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7. Share visualisation
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Showtime!

Round table