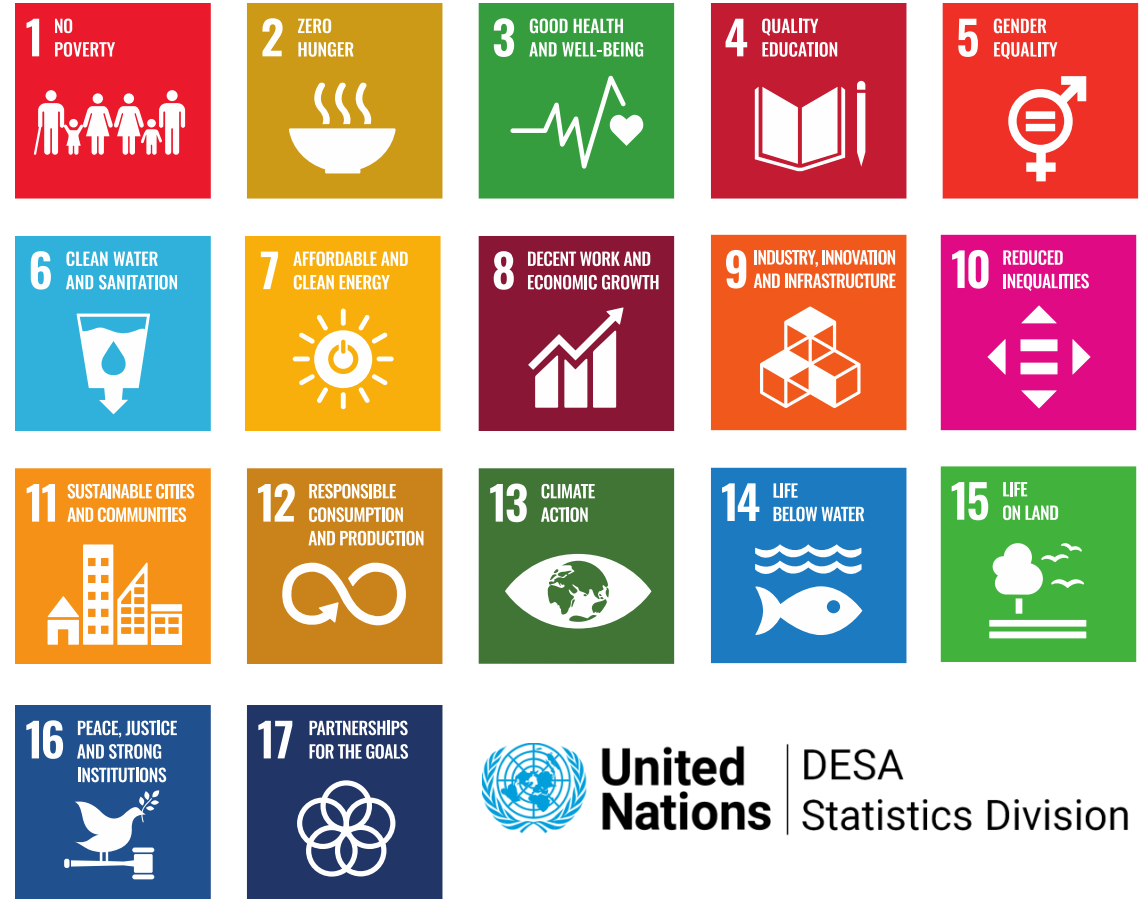


Session 4: Good practices in the use of data storytelling and data visualizations in VNR reports

Heather Page

UN Statistics Division | SDGs Monitoring Section

Workshop on supporting evidence-based VNRs and SDG reporting: data and statistics innovations
Ankara, Türkiye | 7 December 2023



United Nations

DESA
Statistics Division

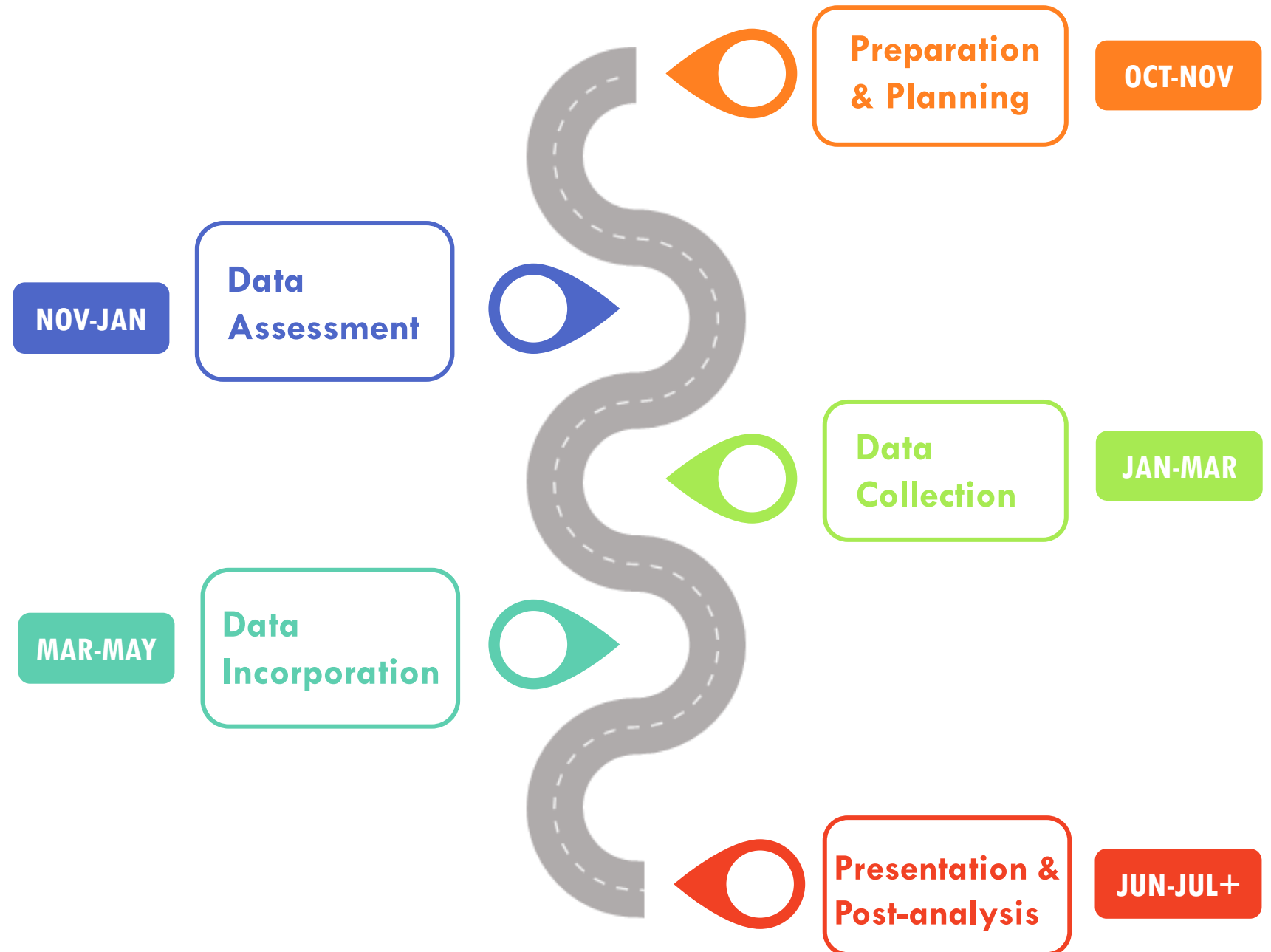
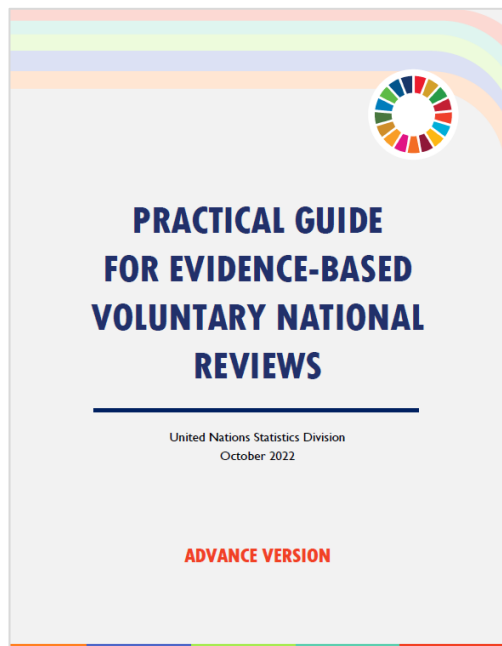


United Nations

DESA
Statistics Division



A Data Roadmap for VNRs



Data Roadmap:



Step 4

Data Incorporation

- Preparing the narrative and communicating data
- Including a Statistical Annex and SDG data platform

MAR-MAY

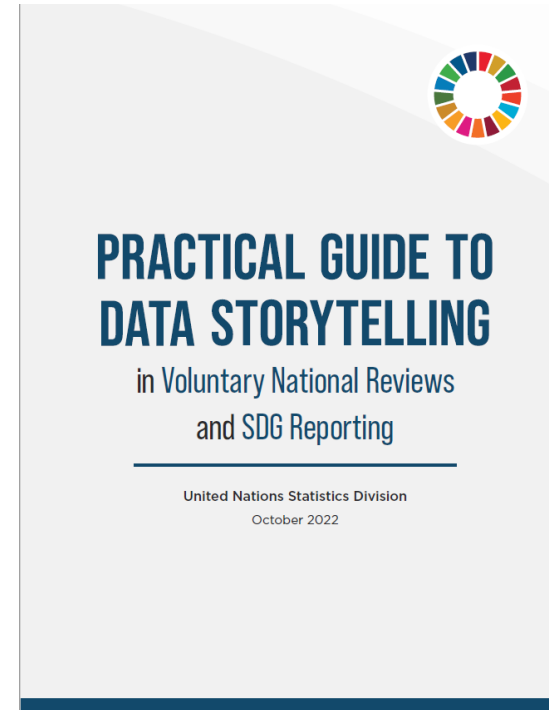




Data Roadmap: Data Incorporation

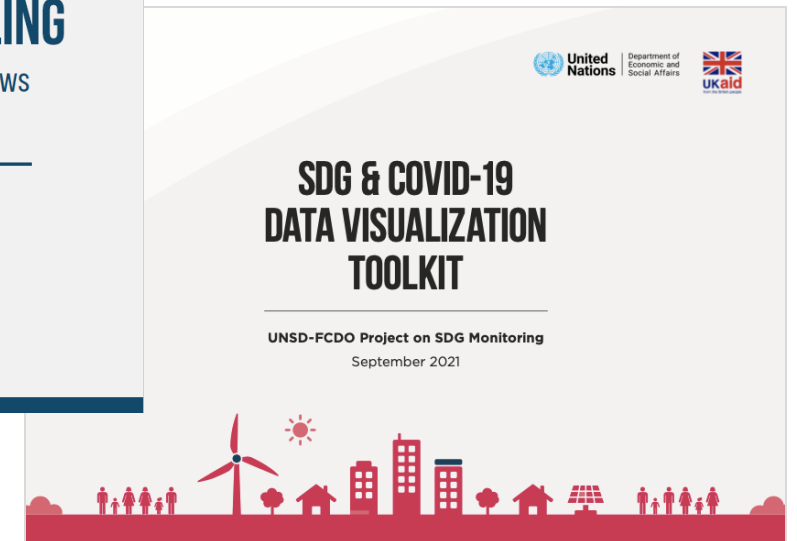
MAR-MAY

- **Preparing the Narrative:** supported by statistics in tables and charts
- **Data Storytelling & Data visualization**
- **Progress charts, Statistical Annex, SDG data platforms:** methodologies and visualization



Guide link:

<https://unstats.un.org/sdgs/data-storytelling/>



Toolkit link: <https://unstats.un.org/capacity-development/UNSD-FCDO/sdgs-data-visualization-toolkit/>



Introduction

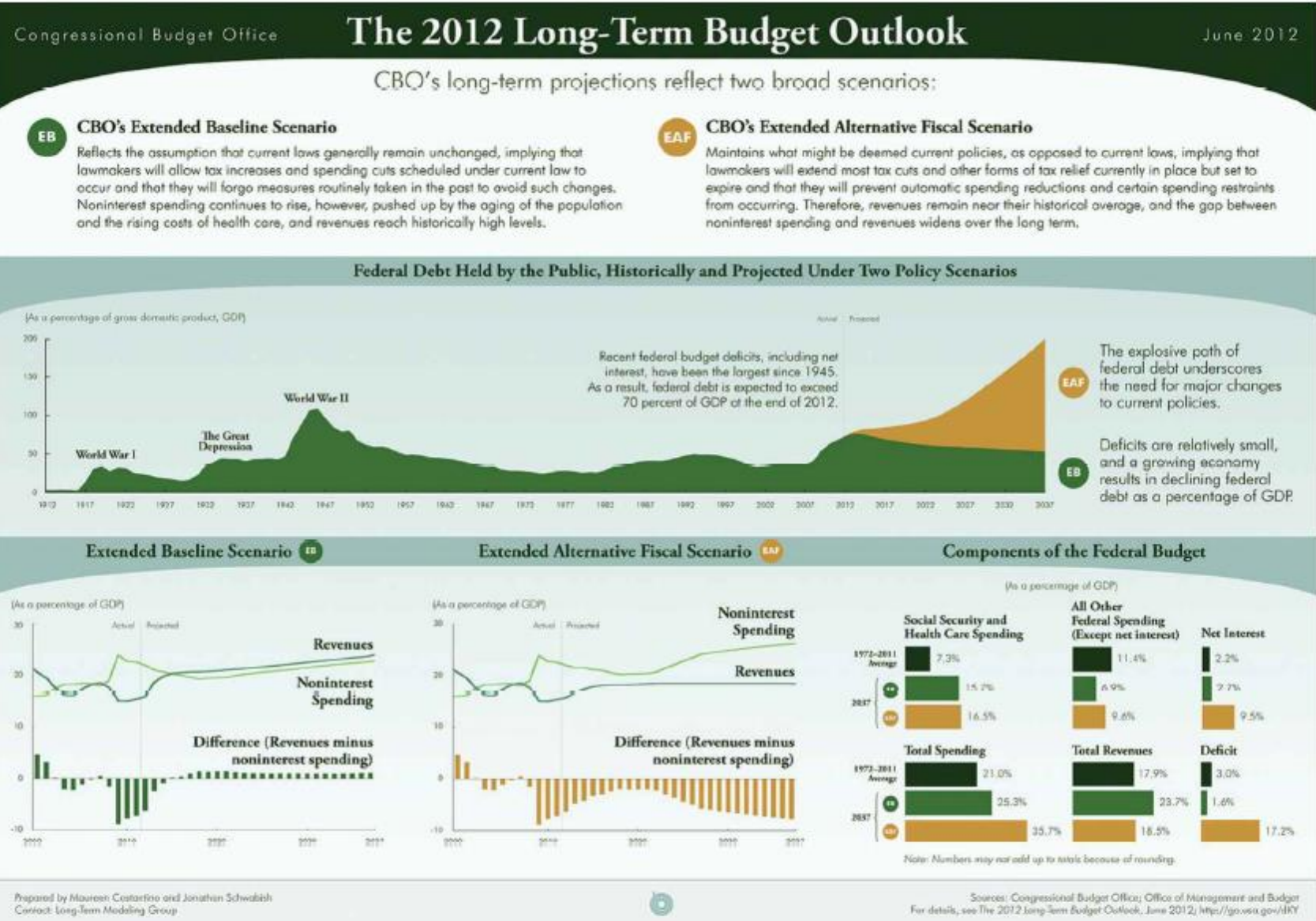
Option Name		Revenues, Outlays, and Balances as a Percentage of GDP				75 Year Present Value as a Percentage of		Trust Fund Exhaustion Year
		Year				GDP	Taxable Payroll	
		2020	2040	2060	2080			
Baseline ^a	Revenues ^b	4.9	4.9	4.9	5.0	5.2	14.4	20XX
	Outlays ^c	5.2	6.2	6.0	6.3	5.8	16.0	
	Balance ^d	-0.3	-1.3	-1.1	-1.3	-0.6	-1.6	

Option Name		Changes in Revenues, Outlays, and Balances as a Percentage of GDP				Change in 75 Year Present Value as a Percentage of		Change in Trust Fund Exhaustion Year	
		Year				GDP	Taxable Payroll		
		2020	2040	2060	2080				
1	Increase the Payroll Tax Rate by 1 Percentage Point in 2012	Revenues	0.4	0.4	0.3	0.3	0.3	1.0	XX
		Outlays	*	*	*	*	*	*	
		Balance	0.4	0.4	0.4	0.4	0.3	1.0	
2	Increase the Payroll Tax Rate by 2 Percentage Points over 20 Years	Revenues	0.3	0.7	0.7	0.7	0.5	1.6	YY
		Outlays	*	*	*	*	*	*	
		Balance	0.3	0.7	0.7	0.8	0.6	1.6	
3	Increase the Payroll Tax Rate by 3 Percentage Points over 60 Years	Revenues	0.2	0.5	0.8	1.0	0.5	1.5	ZZ
		Outlays	*	*	*	*	*	*	
		Balance	0.2	0.5	0.9	1.1	0.5	1.4	
4	Eliminate the Taxable Maximum	Revenues	0.8	0.9	0.9	0.9	0.9	n.a.	AA
		Outlays	*	0.3	0.5	0.5	0.3	n.a.	
		Balance	0.8	0.6	0.4	0.4	0.6	n.a.	
5	Raise the Taxable Maximum to Cover 90% of Earnings	Revenues	0.3	0.4	0.4	0.4	0.4	n.a.	BB
		Outlays	*	0.1	0.2	0.2	0.1	n.a.	
		Balance	0.3	0.3	0.2	0.2	0.2	n.a.	

Author's rendering of early draft of exhibit from the Congressional Budget Office.

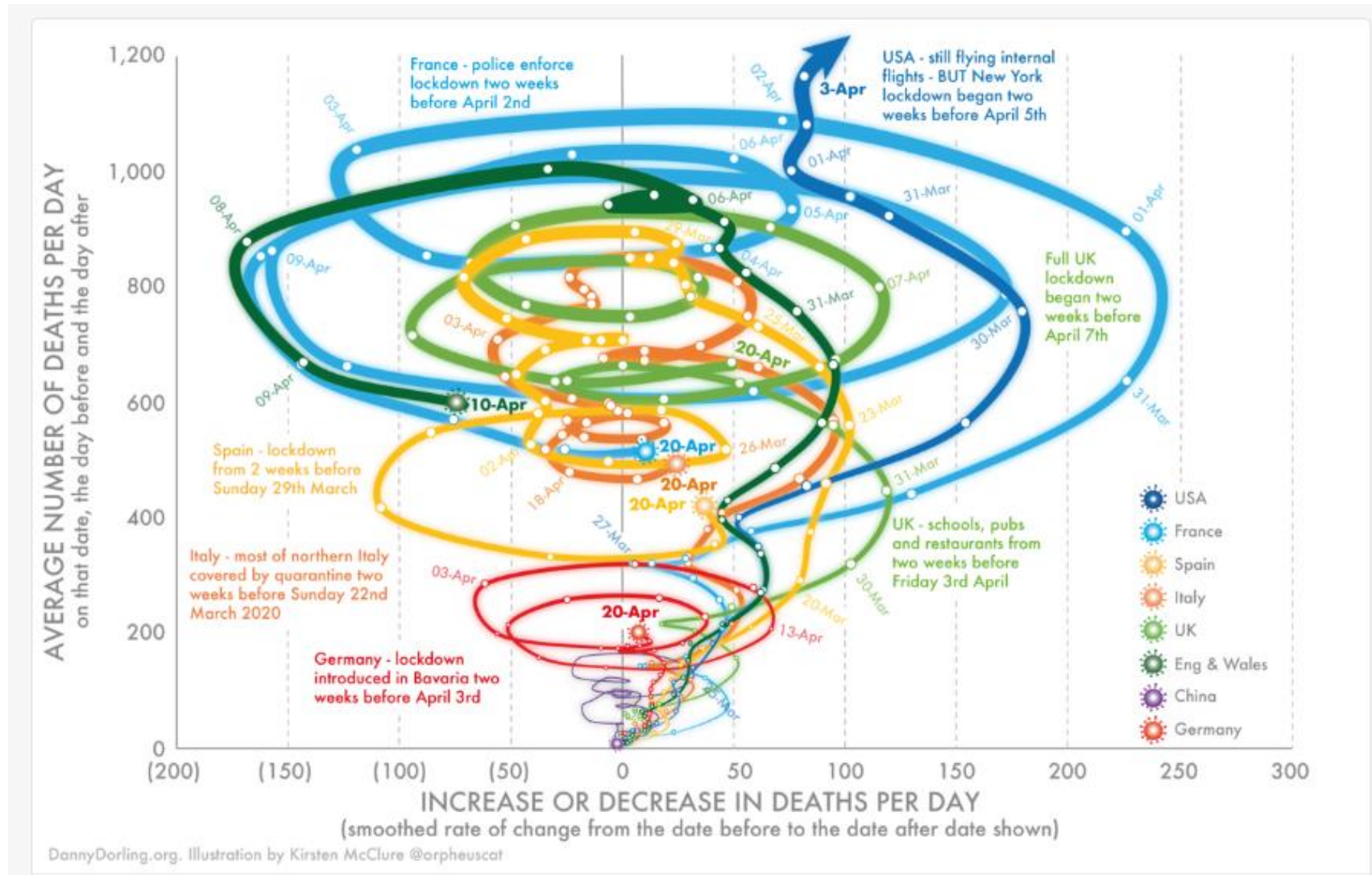


Introduction





Introduction



DannyDorling.org. Illustration by Kirsten McClure @orpheuscat

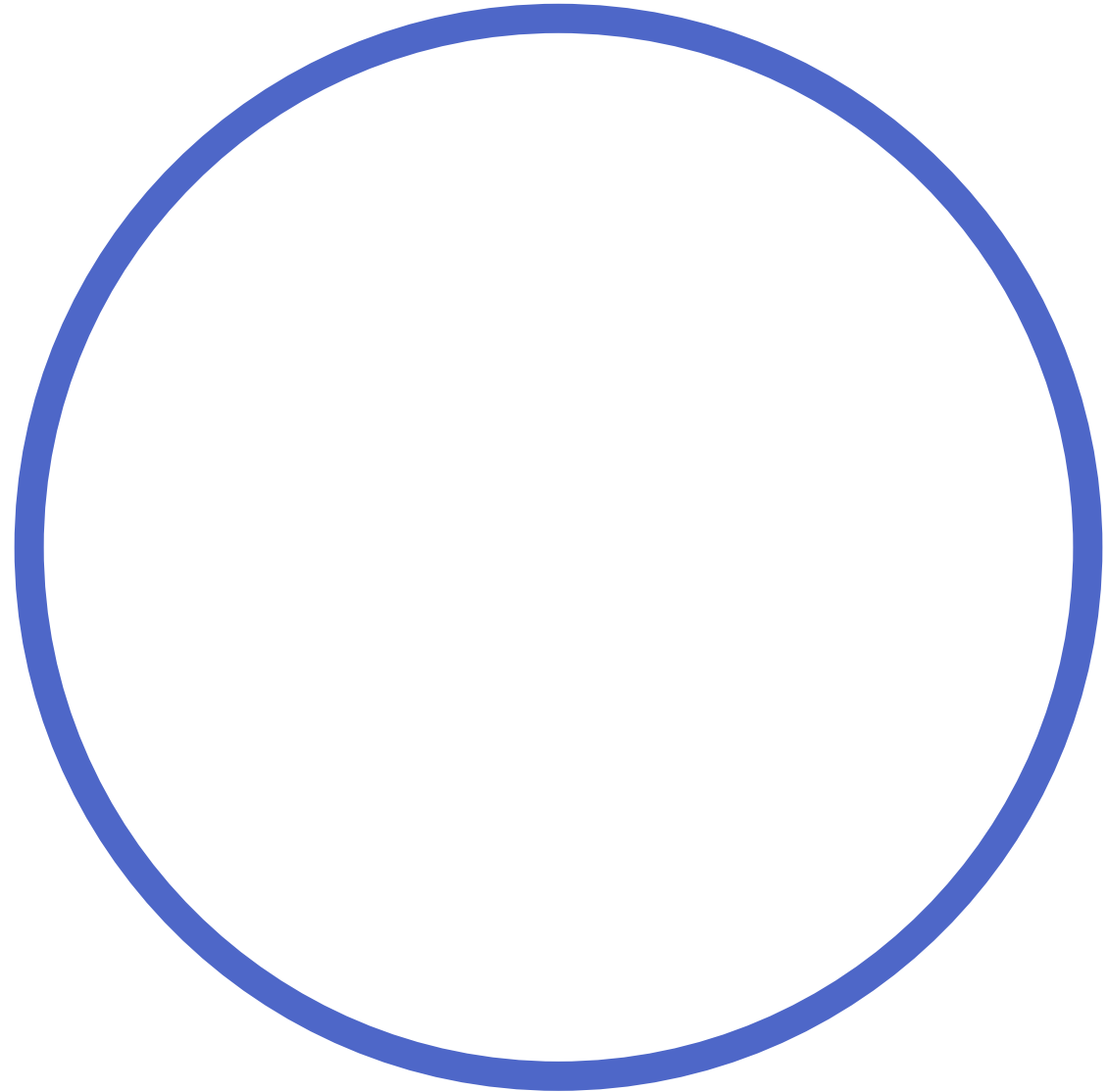


Introduction

A curved line
with every
point equal
distance from
the center



Introduction



Example from: [link](#)

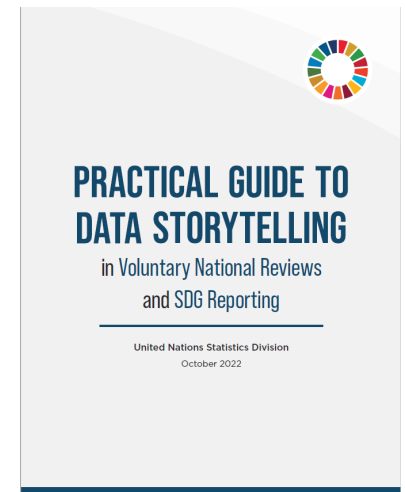


Data Storytelling

What is data storytelling?

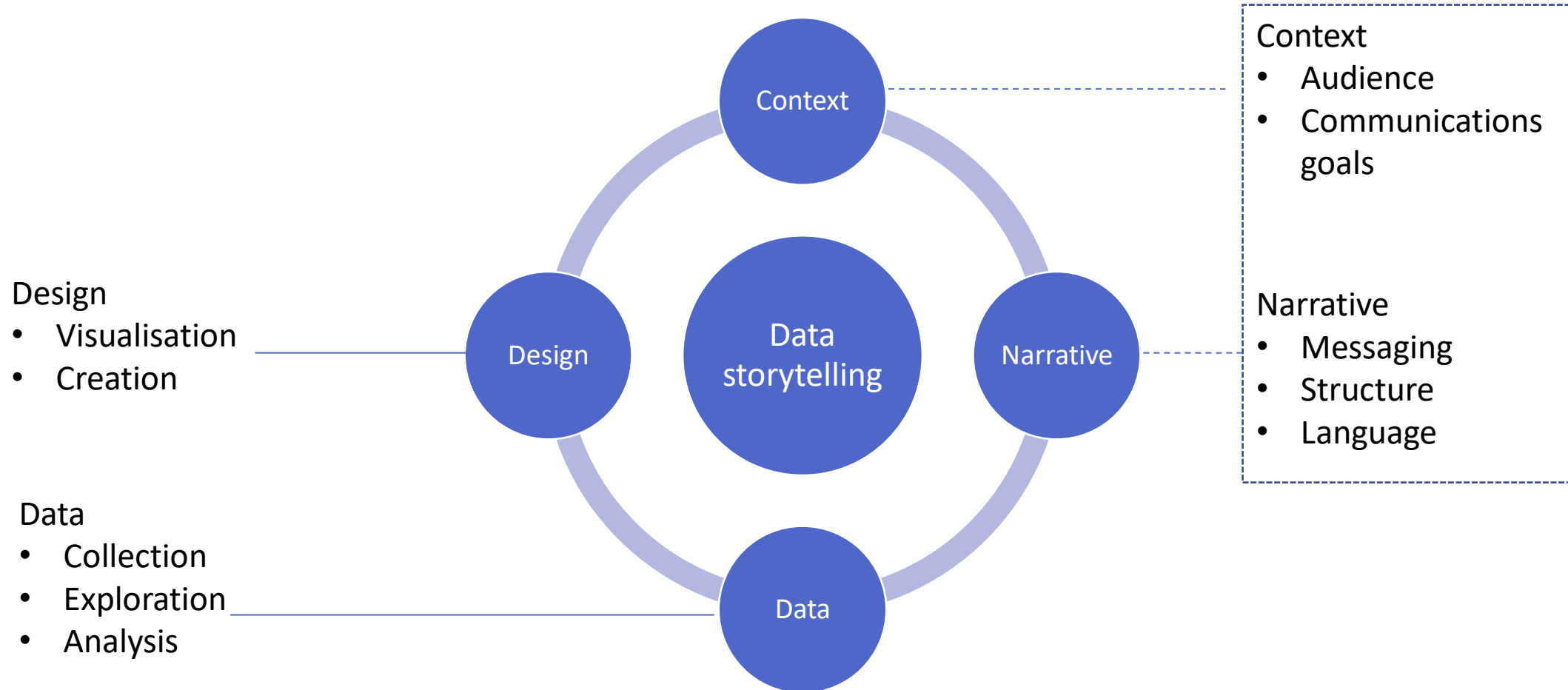
Data storytelling is a multidisciplinary process that combines the results of data analysis with compelling narratives and presents the combination via text and visuals to inform, engage, and influence the audience.

Source: [Venngage Data Storytelling Benchmark Report 2021](#)



<https://unstats.un.org/sdgs/data-storytelling/>

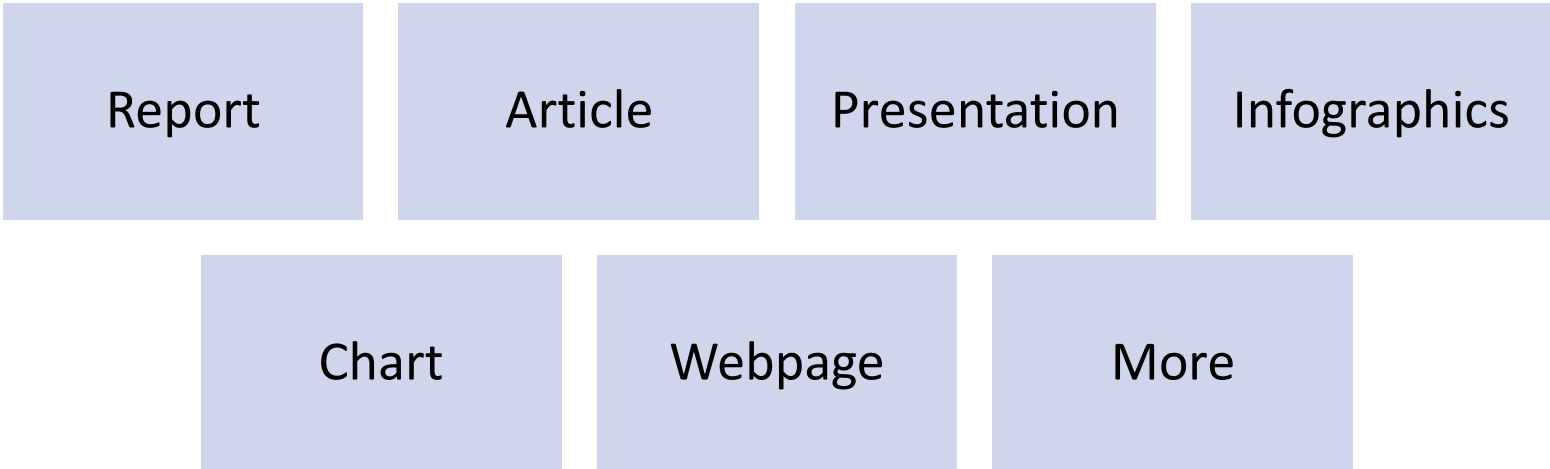
Data storytelling components



Source: [Venngage Data Storytelling Benchmark Report 2021](#)



Data stories come in many shapes, forms, and sizes



 SDG content is dense and heavy by nature



Numbers



Geographies



Topics



Terminologies

VNRs and SDG data stories have a broad audience

Different groups of users have different requirements and different levels of expertise – we need to recognize this through our outputs

I want to easily find out what the Goals are and how we're doing



Engaged citizen

Summaries w/ graphs, charts, maps

Infographics

Progress Charts

I want to quickly access clear visualisations I can share



Policy makers

Infographics

Summaries w/ graphs, charts, maps

I need the latest data on indicator 8.5.2 for my report



Government and NGOs

Statistical Annex

Data Platform

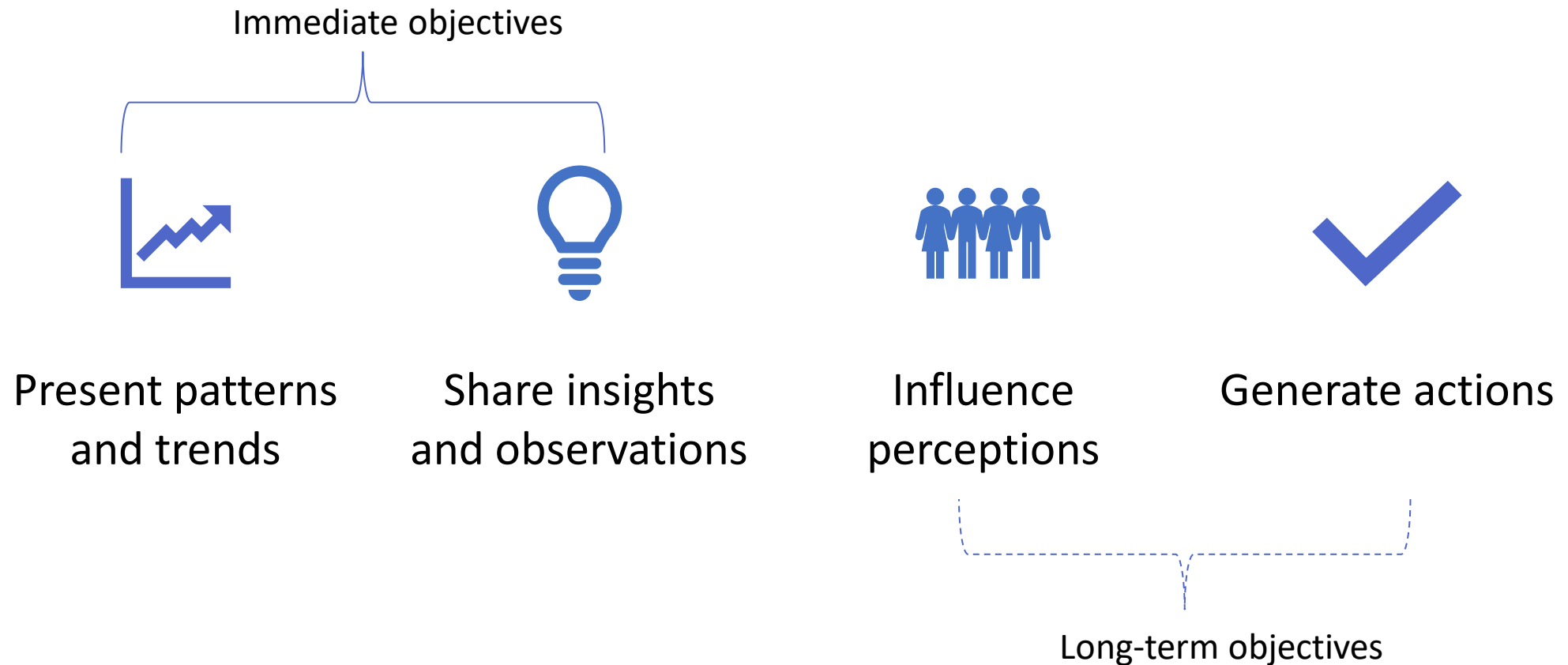
I want to be able to download the data in an accessible format



Expert data users

Data Platform

What are the objectives of data storytelling in SDG and VNR reporting?



How to make VNR SDG materials friendlier to the audience



Keep it simple

Create a crisp storyline (key message + ≤ 3 core arguments)

Write a clear, powerful title

Minimize the use of jargon

Use visuals strategically



Bring a perspective

Present insights identified in the data

Show “what” and “so-what”



What do you need for your data story?

Locate a story in the data

Develop a SMART data story title

Include key messages



How to locate a story in data

1

Identify trends and patterns

2

Draw comparisons

3

Look for correlations

4

Check on outliers

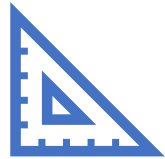


How to write a data story title

SMART rule



Specific



Measurable



Action-
oriented

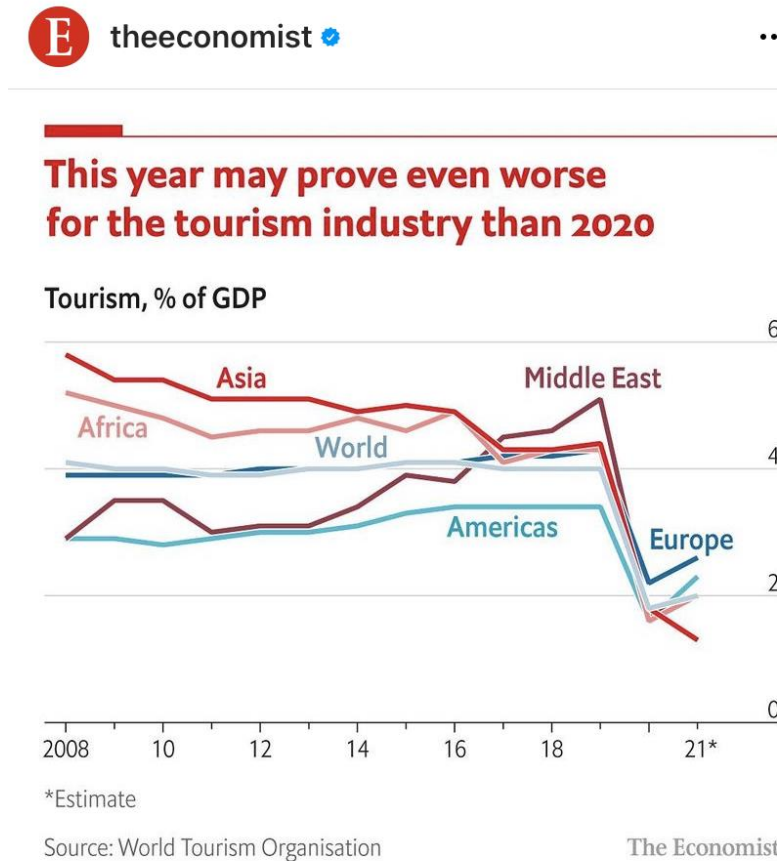


Relevant

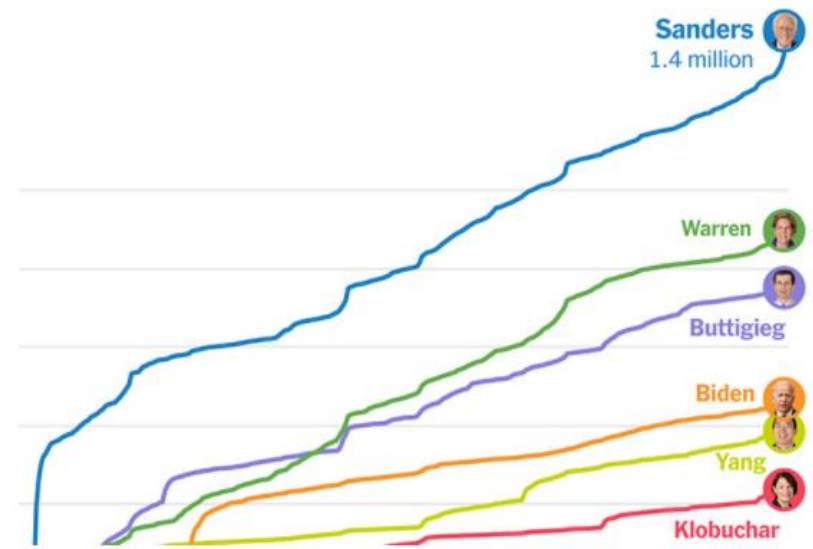


Time-bound

Clear, powerful titles reduce the cognitive load on the audience.



Source: [Economist](#)



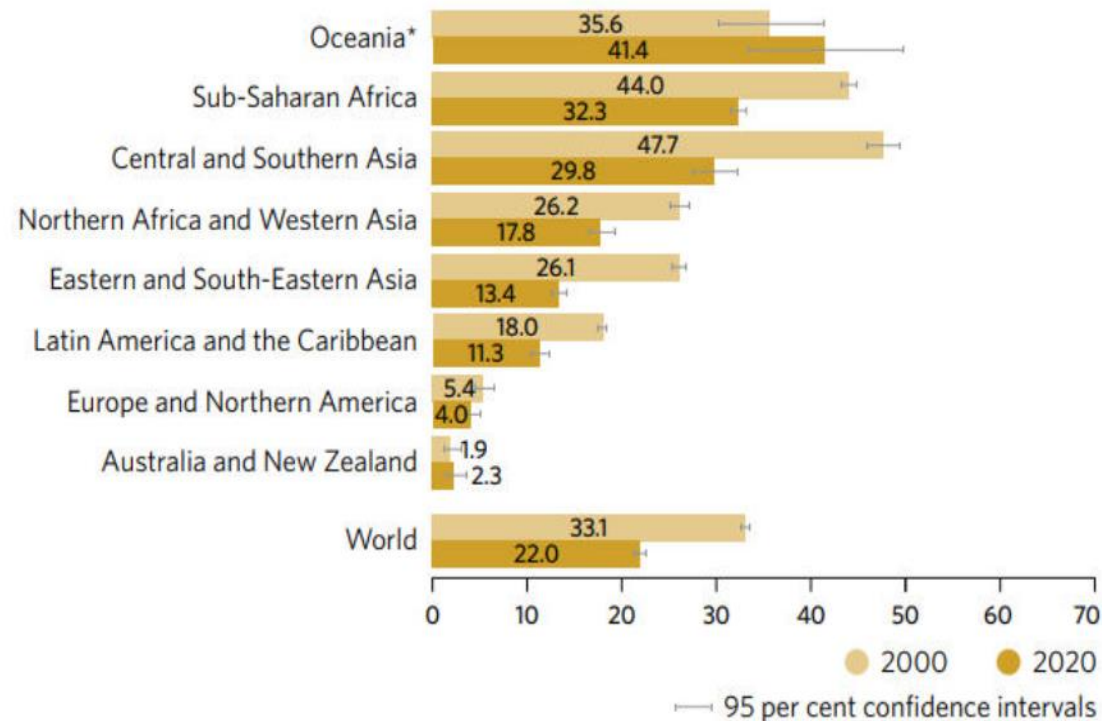
The Donors Powering the Campaign of Bernie Sanders

Source: [NY Times](#)



What is the story?

Proportion of children under age 5 who are affected by stunting, 2000 and 2020¹ (percentage)



Show Data

Download to CSV

* Excluding Australia for New Zealand.

Source: <https://unstats.un.org/sdgs/report/2021/Goal-02/>

- **Trends and patterns:** Compare Global 2020 with Global 2000 to highlight progress
- **Comparisons and correlations:** Oceania, Sub-Saharan Africa, and Central and Southern Asia vs. the rest. Why? Are children more vulnerable in these regions hence demand more attention?
- **Outliers:** Oceania is the only region that has higher stunting statistics in 2020 than in 2000. Why?
- **Activity:** [Finding a Story worksheet \(Datatherapy.org-link\)](#)



How to write the key message

1

Construct the key message as a big idea

- What is at stake?
- What will the future look like?
- How does it compare with the past situation?
- Trends and patterns

2

Provide essential information

- Who
- What
- Where
- When
- Why
- How

3

Show the meaning of data

- Highlight the insights identified in the data
- Summarize the core statistical finding



Example: Data stories in UK VNR

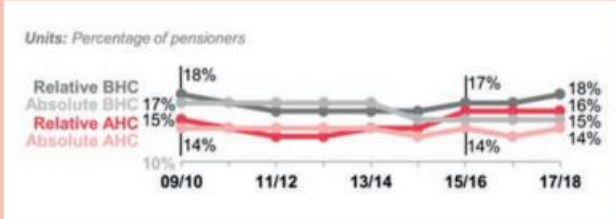
The Data Picture: Pensioner poverty

Coverage: UK

Average pensioner incomes have grown significantly in real terms over the last two decades (average weekly income in 1994/95 was £161 a week AHC, in 2017/18 prices, compared to £304 a week in 2017/18), driven by increases in the contributory basic state pension and the level and increases in the means-tested benefit, as well as increases in income from occupational pensions.

Rates of poverty for pensioners have remained stable between 2015/16 and 2017/18, except for relative BHC rates which have increased.

Percentage of pensioners in poverty: 2009/10 to 2017/18



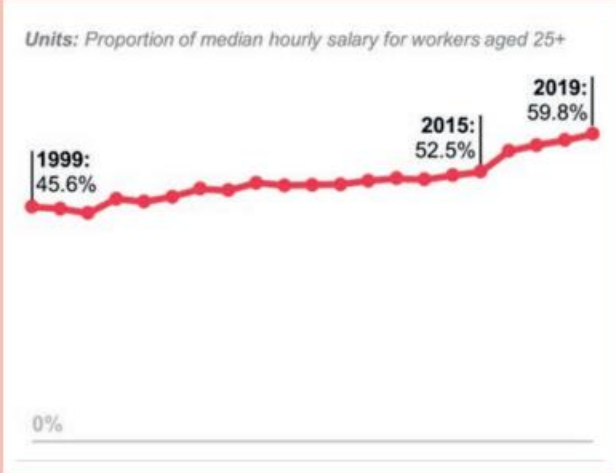
Source: Department for Work and Pensions, HBAI 2017/18

The Data Picture: National Living Wage

Coverage: UK

Recent changes mean that a single person on the National Living Wage will, from April 2019, take home over £13,700 a year after income tax and National Insurance – £4,500 more than in 2009/10 (not adjusted for inflation).

National Living Wage as a proportion of median hourly salary (workers aged 25+ over time): 1999 to 2019



Source: Low Pay Commission, National Minimum Wage: 2018 report

Source: UK 2019 VNR

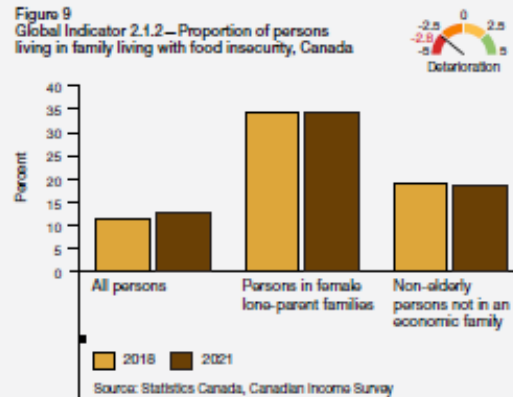


Example: Data stories in Canada VNR

SPOTLIGHT: Food insecurity is present in Canada at varying levels across regions and socioeconomic profiles

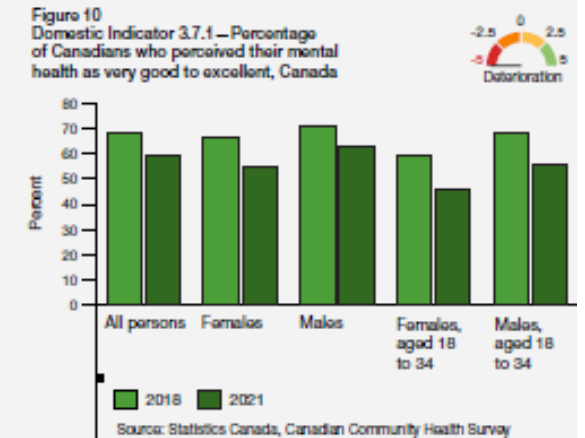
Food insecurity increased among Canadians from 11.6% in 2018 to 12.9% in 2021. This shows that there has been a deterioration of progress toward the goal of ending hunger and food insecurity in Canada. Female lone-parent families are at a higher-risk of food insecurity, with 34.1% living in moderate or severe food insecurity, unchanged from 2018. Among persons younger than 65 (non-elderly) who did not live in an economic family, 18.5% lived in food insecurity in 2021, a rate substantially higher than the national average of 12.9%.

Food insecurity is higher in the Canadian territories than in the provinces, with 49.5% of people in Nunavut, 20.4% in Northwest Territories, and 21.2% in Yukon living in moderately or severely food insecure households in 2020.³⁷ Indigenous households also experience higher rates of food insecurity than the general Canadian population.³⁸ In 2016, 50.8% of First Nations adults living on reserve experienced food insecurity³⁹ and, in 2017, 77.1% of Inuit adults living in Inuit Nunangat experienced food insecurity.⁴⁰



SPOTLIGHT: More Canadians perceived their mental health as worsening in 2021 with the onset of the COVID-19 pandemic in 2020

Canadians perceived their mental health as worsening in 2021 with the onset of the COVID-19 pandemic in 2020 and its continuing societal impacts. Among Canadians, 59.0% perceived their mental health as very good to excellent in 2021, representing a decline from 68.6% in 2018, and indicating a deterioration toward the ambition that Canadians have healthy and satisfying lives. Mental health among women was reported as particularly worse than their male counterparts in both 2018 and 2021. In 2021, 55.1% of women reported very good to excellent mental health compared to 63.0% among men. Among younger women aged 18–34, less than half (45.8%) reported very good to excellent mental health in 2021, substantially fewer than in 2018 and a much lower rate than their male counterparts. While younger men also reported an impact on their mental health between 2018 and 2021, the proportion reporting very good to excellent mental health remained higher than among women.



General writing tips

Put key message first.

One paragraph, one idea.

Start a paragraph with a topic sentence.

Write short sentences.

No more than 3 sentences in one paragraph.

Use headlines, headings, subheadings, bold text, and bullets.

Use active voice.

Use appropriate verbs.

Minimize the use of jargon.

Minimize the use of acronyms.

Try not to use long words.

Avoid redundancy.



Think beyond storytelling



Set the communications objectives upfront



Develop the narrative before visualizing data



Connect with the audience at their level of data literacy



Promote and advocate for your data stories with a plan



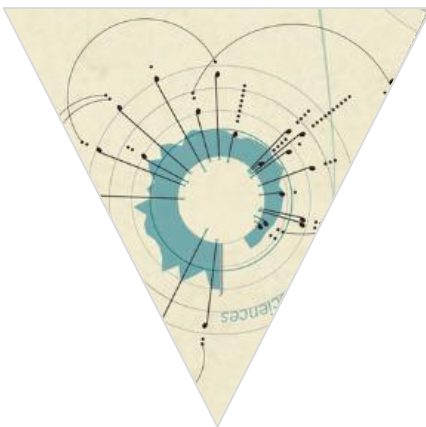
Data Visualization



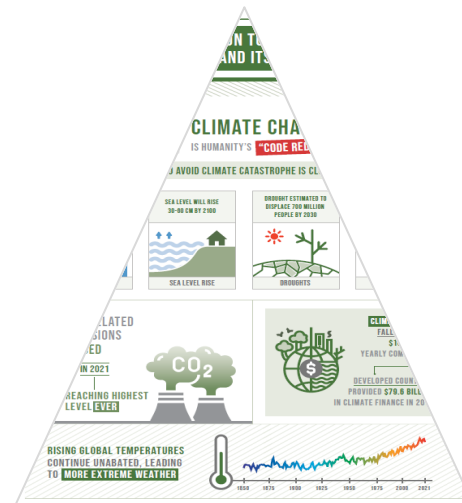
[Data Viz Catalogue](#)

Traditional Visualization:
Charts, Graphs, etc.

[The Lifecycle of Ideas](#)
(Giorgia Lupi)



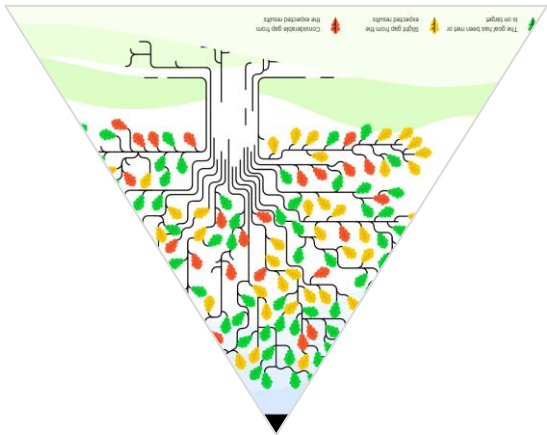
**Non-traditional
Visualization, Xenographics**



[SDG Report 2022](#)

Infographics

[Estonia Tree of Truth](#)



**Interactive:
Platforms, Storymaps**



Word Clouds

**Qualitative data
Visualization**

[Maps and data viz](#)



**Maps, Geospatial
Information**



Data Visualization good practices

Better Data Viz Guidelines:

- ✓ Show the Data
- ✓ Reduce the clutter
- ✓ Integrate graphics and text
- ✓ Avoid the Spaghetti chart
- ✓ Start with grey

([Jonathan Schwabish](#))

Guide to Information Graphics Chart creation:

- ✓ Research
- ✓ Edit
- ✓ Plot
- ✓ Review

([Dona Wong](#))

UNSD Guidelines:

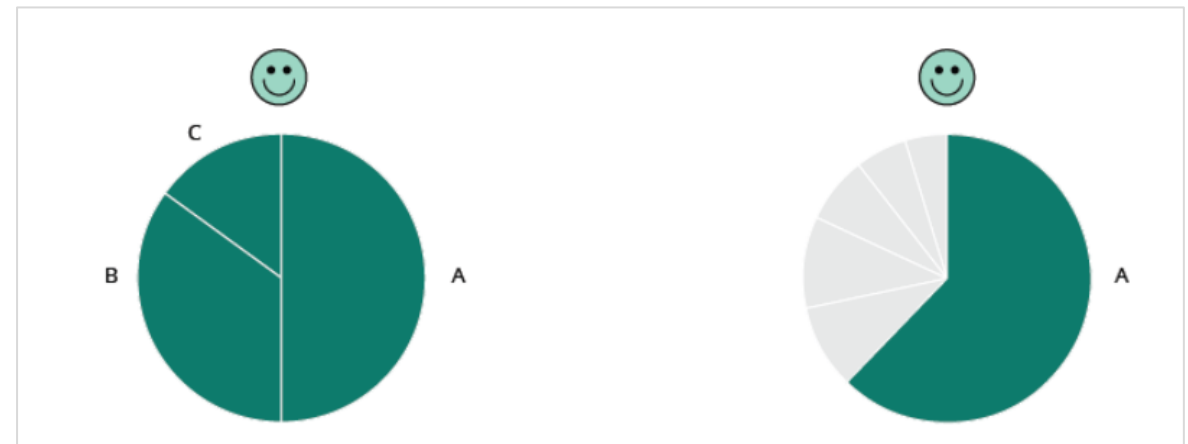
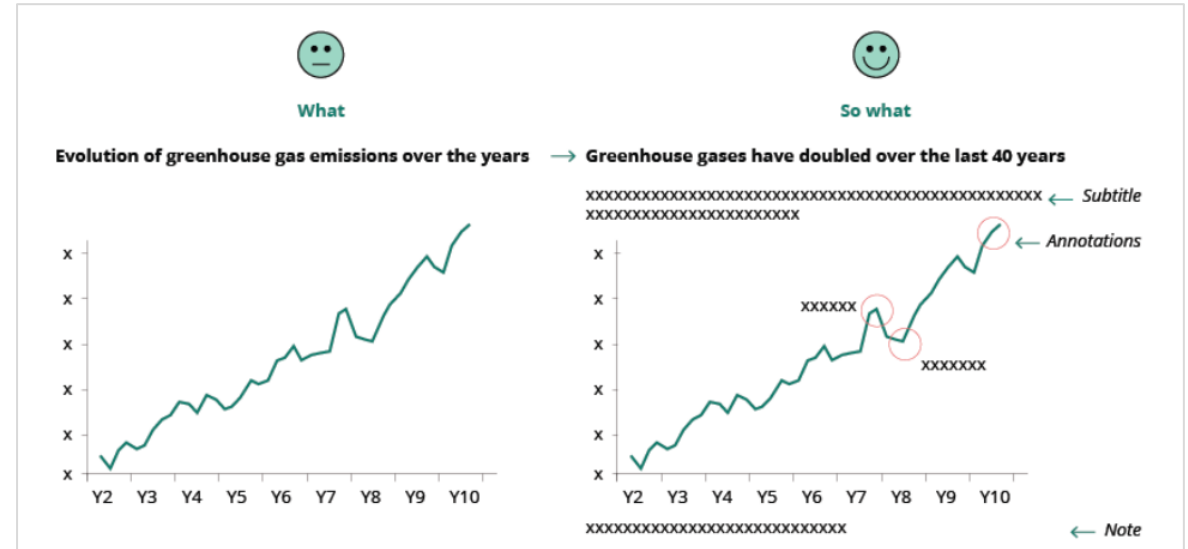
- ✓ Understand the data
- ✓ Understand the audience
- ✓ Develop key messages, short summaries and headlines
- ✓ Choose accurate visuals
- ✓ Feedback, review/revise

(UNSD for SDG Reports)



Data Viz in VNRs: Charts, graphs, data tables

- Clean axes, simple, concise, etc.
- Draw attention intentionally, i.e. (add explainers) →
- Direct your readers attention with “pre-attentive” attributes (i.e. color, enclosure, etc.)
- Avoid misleading: axis at 0 (bar charts)
- Data Tables: sorting, shading, color and white space, concise info.
- Pie charts with right angles, clockwise →

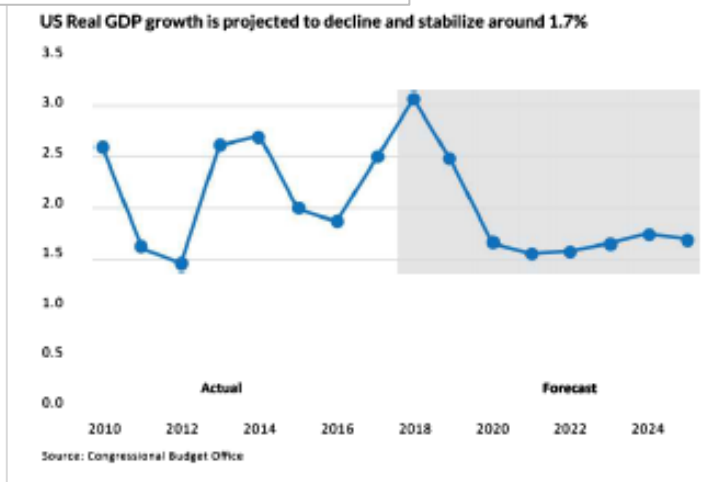




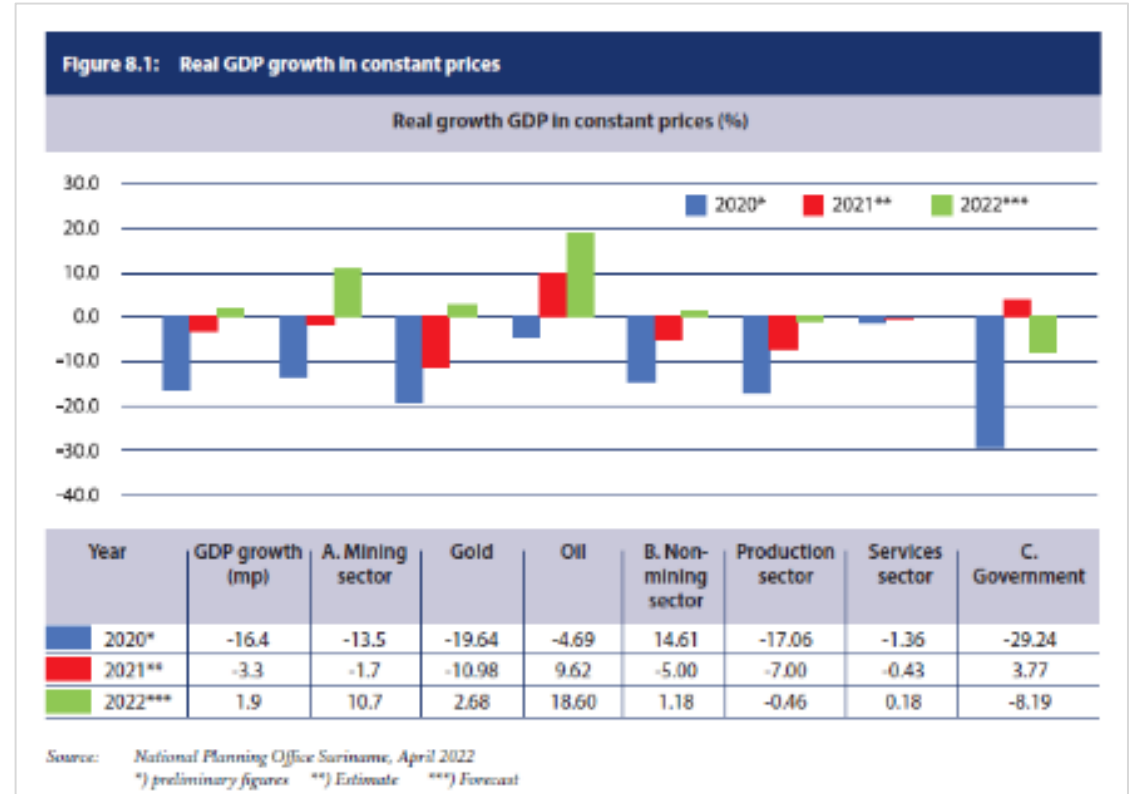
Data Viz in VNRs: Charts, graphs, data tables

“Pre-attentive” attributes

Examples of preattentive attributes that we can use in our visualizations to direct our reader's attention.



Data Tables

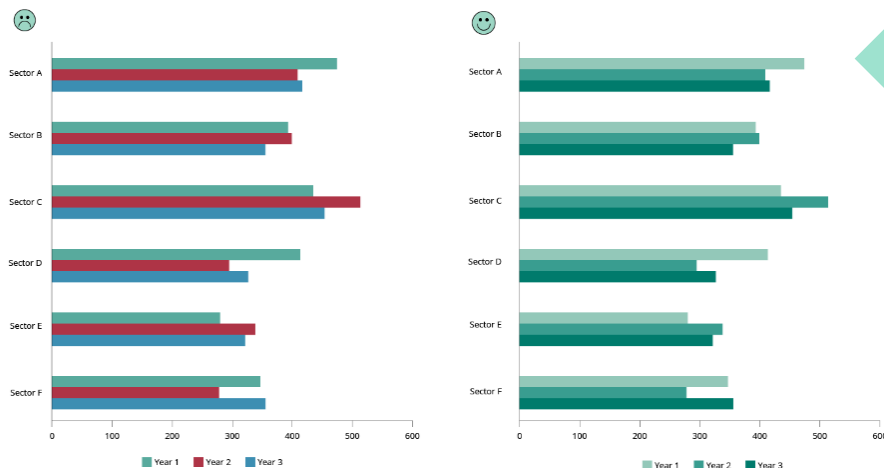


Suriname 2022 VNR

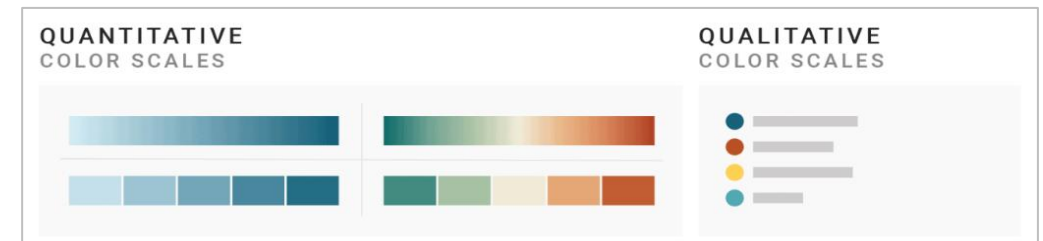
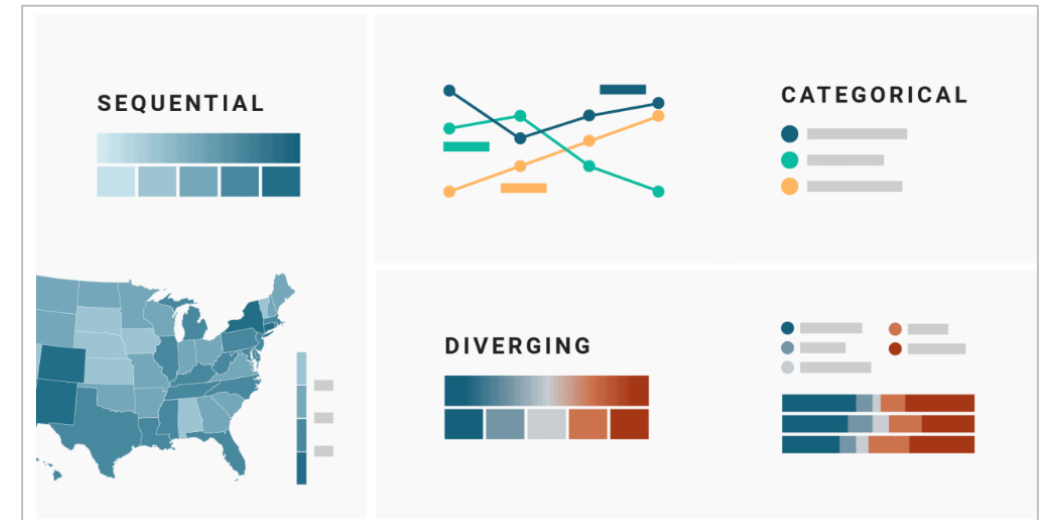


Data Viz in VNRs: Color & Design

- **Consistent chart design:** layout, typography, color choices
- Hues and values depending on the relationship
- Color palette for charts: Basic color + 3-5 shades of each hue (Dona Wong)
- Don't use multiple colors/rainbows to represent the same kind of data (Dona Wong)



[EEA Do's and Don'ts of Data Visualization](#)



Datawrapper Guide [Part I](#) | [Part II](#)



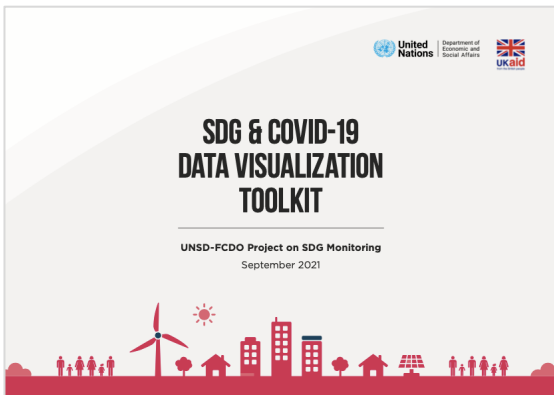
Data Viz in VNRs: Icons/Infographics

Why infographics are helpful:

- Makes data easy to digest
- Helps identify patterns
- Helps narrate a broader story
- Makes data more memorable
- Easier to focus on interesting trends
- More reader-friendly than regular charts/pies

Good practices:

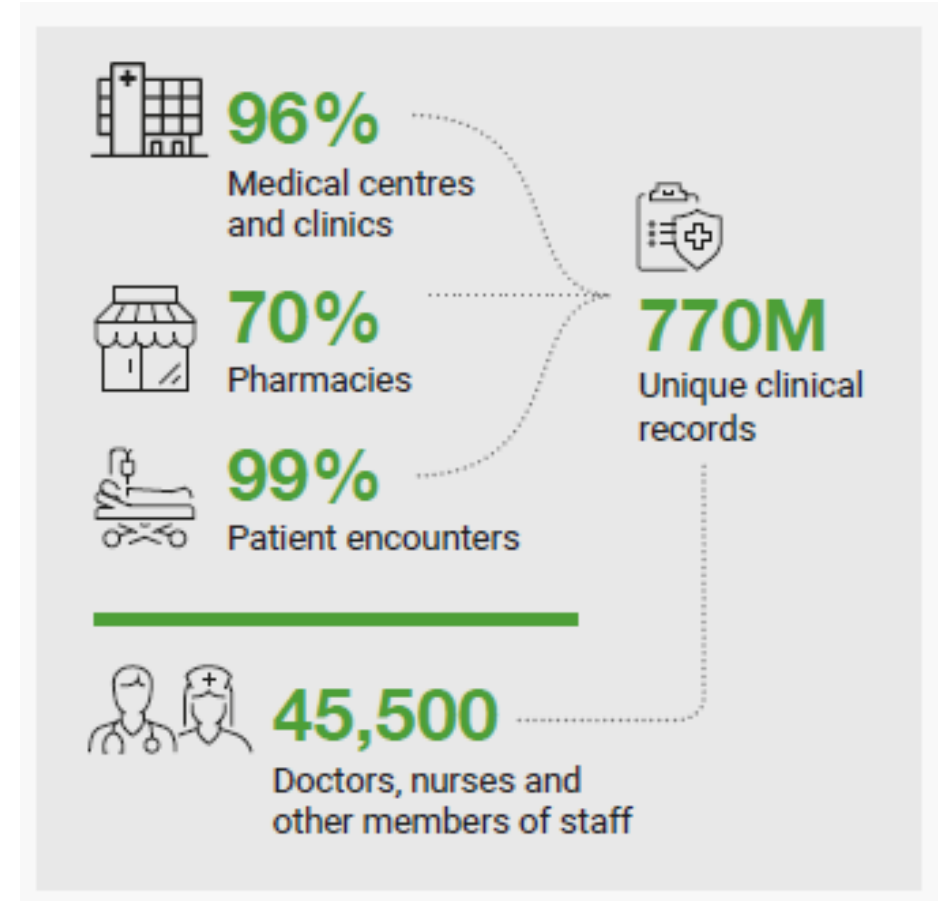
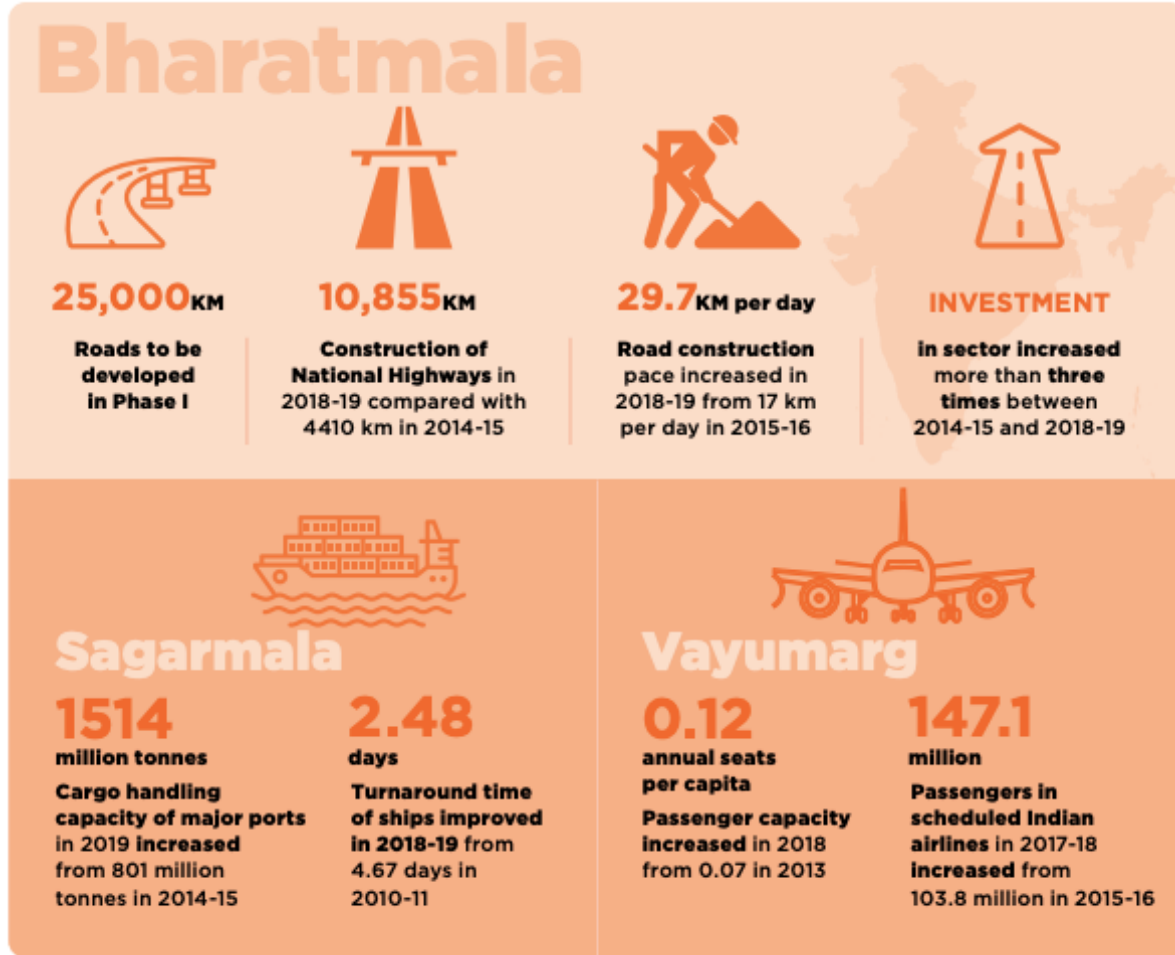
- Know target audience
- Keep it simple and easy to review
- Focused: one topic a time
- Focus on the flow: streamlined
- Create your short key messages with data
- Work with graphic designers or easy-to-use tools and programs
- Choose appropriate icons
- Balance visual and written information: collaborate with others and look for data visualization inspiration
- Review and revise



[SDG & COVID-19 Data Visualization Toolkit](#)



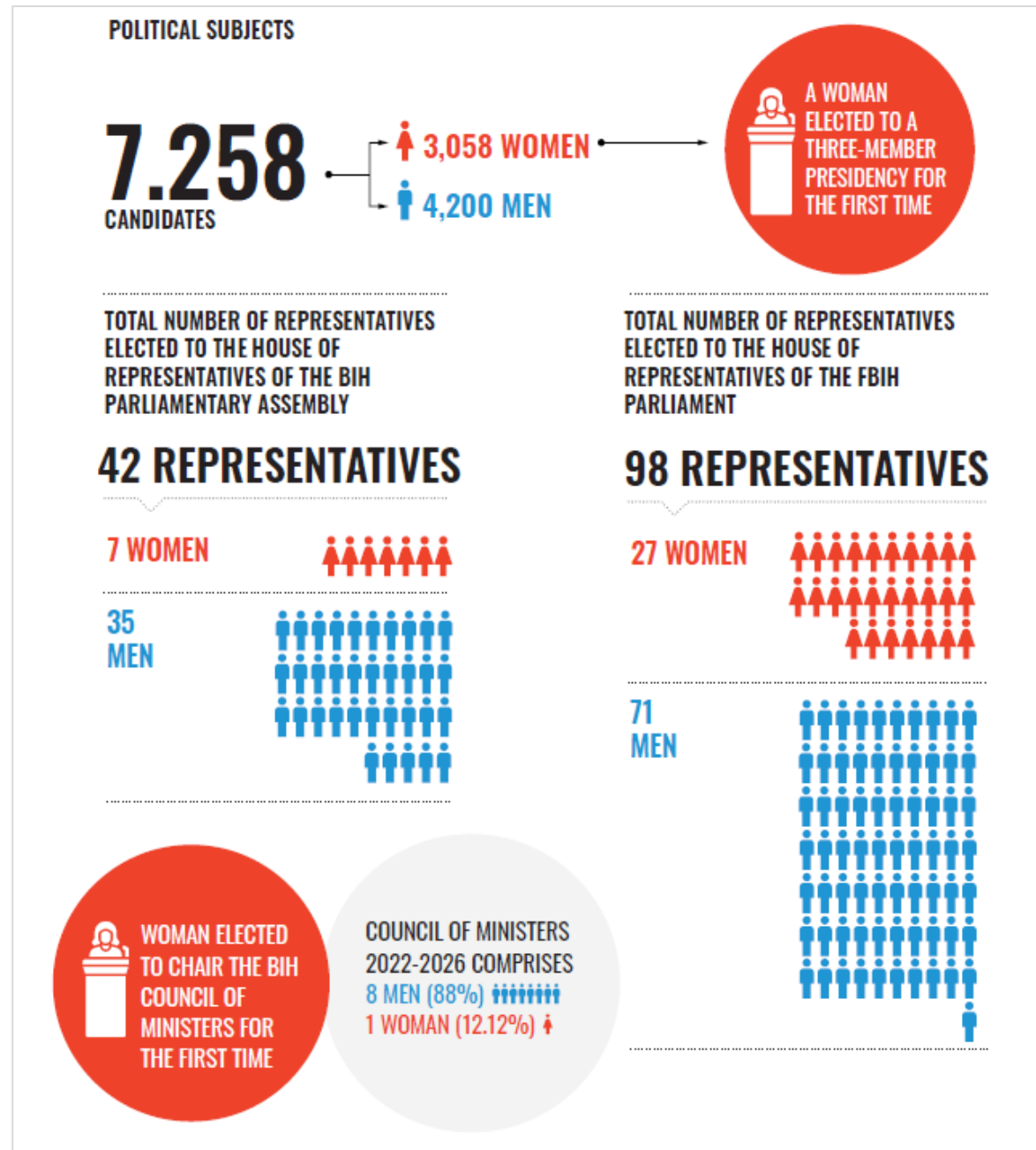
SDG INFOGRAPHICS IN VNRs



Source: UAE 2022 VNR

Source: [India VNR 2020: Decade of Action Taking SDGs from Global to Local](#)

SDG INFOGRAPHICS IN VNRs

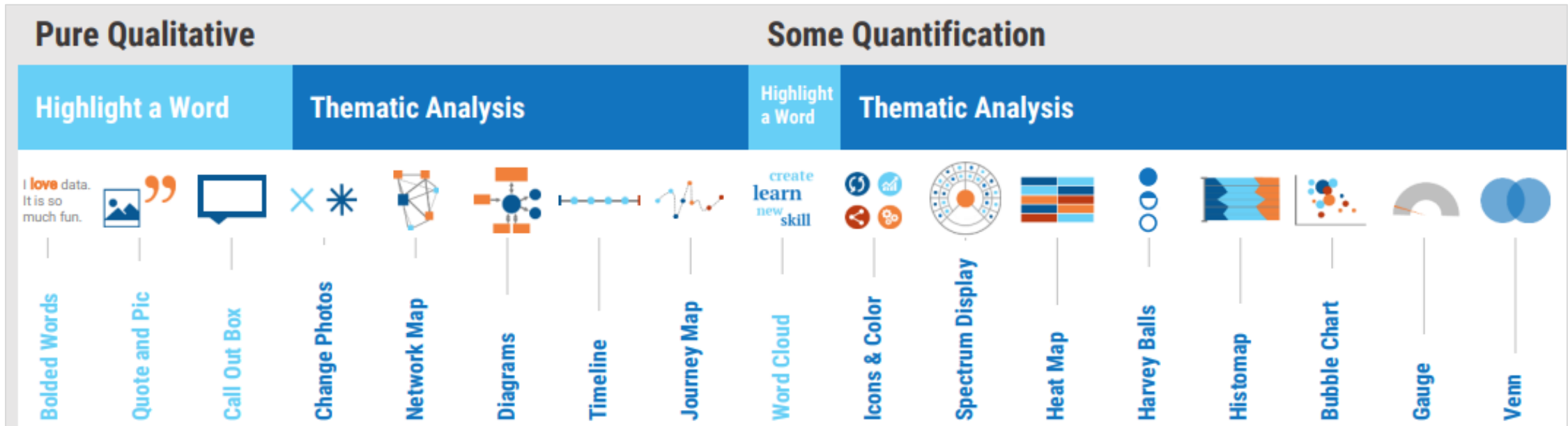


Source: Bosnia and Herzegovina 2023 VNR



Data Viz in VNRs: Qualitative data

- Icons, Icon arrays
- Word clouds/specific words
- Word trees
- Quotes, etc.
- Heat Map





Data Viz in VNRs: Statistical Annex

Common characteristics in the VNR statistical annexes include data tables containing:

- Baseline year and data information
- Current status and year (of the data)
- Established goals for 2025/2030
- Projections
- Disaggregated data
- Data sources
- Charts and/or other data/progress visualizations (with legends as applicable)

Statistical Annex

Key
● Trailing ● On Track ● Achieved

Goals & Targets <i>(from the 2030 Agenda for Sustainable Development)</i>	Indicators	Baseline <i>(year)</i>	Baseline <i>Data</i>	Current <i>year (Period)</i>	Current <i>Progress (2020)</i>	Status
Goal 1. End poverty in all its forms everywhere						
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day	1.1.1 Proportion of population below the international poverty line, by sex, age, employment status and geographical location (urban/rural)				(See Goal 1)	●
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	1.2.1 Proportion of population living below the national poverty line, by sex and age	2013	39%			●
	1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions	2018 (Q4)	0.09	2019 (Q3)	0.04	●
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable	1.3.1 Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, newborns, work-injury victims and the poor and the vulnerable	2014	17%	2016	21%	●
1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance	1.4.1 Proportion of population living in households with access to basic services	2014	92%			●
1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters	1.5.2 Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)	2013	0.77%	2016	0.52%	●

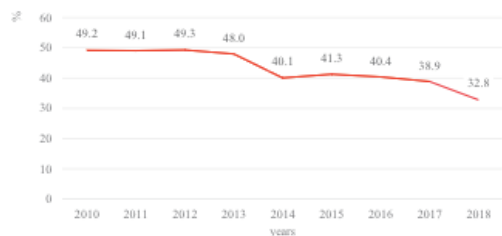
Source: Republic of Seychelles 2020 VNR

STATISTICAL ANNEXES IN VNRs



END POVERTY IN ALL ITS FORMS EVERYWHERE

01_10. People at risk of poverty or social exclusion (% of the population)



Relative share of the population at risk of poverty or social exclusion as a % of total population. The indicator corresponds to the persons who are: at risk of poverty after social transfers; severely materially deprived or living in households with unemployed persons and with very low work intensity. Persons are counted only once even if they are affected by more than one of these phenomena

01_20. People at risk of income poverty after social transfers (% of the population)



Relative share of the population with an equivalised disposable income (after social transfers) below the risk-of-poverty threshold, which is set at 60% of the national median equivalised disposable income

Source: Bulgaria 2020 VNR
(Bulgaria Annex on Statistical Monitoring)

TARGET	INDICATOR	2015	2016	2017	2018	2019	2020 (benchmark)	CURRENT STATUS	2025 (benchmark)	2030 (benchmark)
17.1. Mobilize additional financial resources by promoting foreign and domestic investment	17.1.1. Ratio of private remittances from abroad to GDP, %	7.6	8.1	8.2	8.5	7.8	6.0*		6.0	6.0
	17.1.2. Net foreign direct investment (according to the balance of payments), USD billions	3,012	3,268	2,593	2,360	2,422	10,000		16,000	17,500
17.2. Consistently reduce the debt burden on the economy	17.2.1. Ratio of gross external debt to exports of goods and services in annual terms, %	245.8	244.6	214.3	194.0	192.0	-		To be clarified	
17.3. Develop a partnership between government and business to achieve the SDGs	17.3.1. Number of projects of public-private partnership	177	186	191	189	187	205		To be clarified	

* Definition of this target value used preliminary 2015 data, being 5.75, as a baseline.

Source: Ukraine 2020 VNR

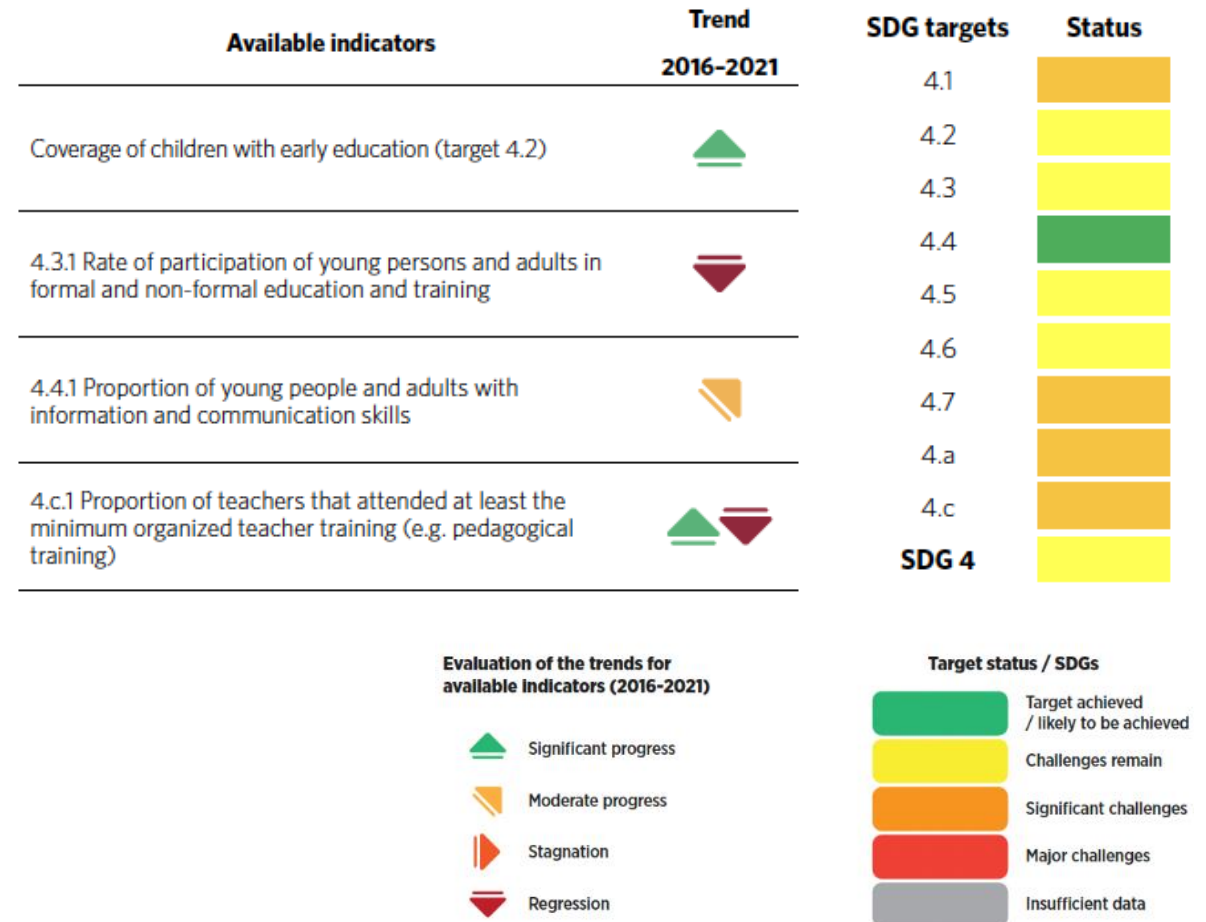
Indicator Code	Indicators	2020 Value	Progress Value	Progress Year	2030 Target	Rating	Source
Goal 1. End poverty in all its forms everywhere							
1.1 By 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day							
*1.1.1	Proportion of population below the international poverty line \$1.90 per day	71.4	73.9	2021	0		World Bank
1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions							
1.2.1	Proportion of population living below the national poverty line, by residence, sex of household headship and age	51.5	50.7	2021	0		NSO
*1.2.1	Urban	17.7	19.2	2021	0		NSO
*1.2.1	Rural	59.5	56.6	2021	0		NSO
*1.2.1	Males	49.3	48.5	2021	0		NSO
*1.2.1	Females	58.3	56.8	2021	0		NSO
*1.2.1	Proportion of the population-ultra-poor based on the national poverty line	24.5	20.5	2021	0		NSO
*1.2.1	National Human Development Index (HDI)	0.476	0.483	2021	1		NSO
1.3 Implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable							
1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women,		7%	2021	21.1		Ministry of Gender

Source: Malawi 2022 VNR



Data Viz in VNRs: Progress Charts

- Baseline year
- Indicator and target information
- Trends
- Status
- Data sources
- Clear legend
- Link to the technical note (*very important!*)

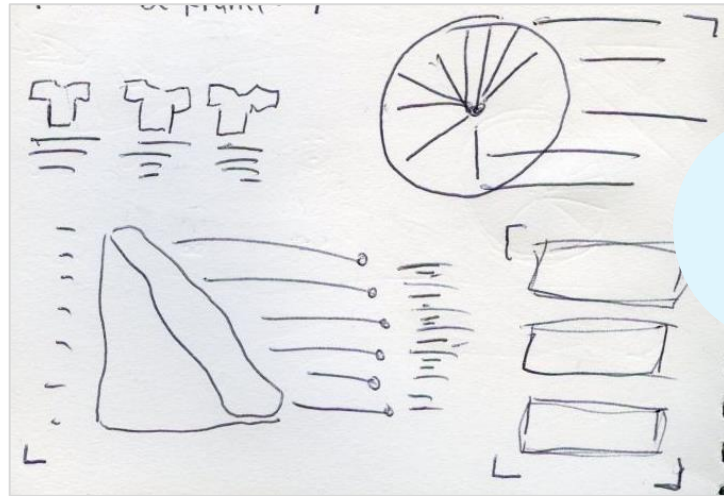


Source: Montenegro 2022 VNR

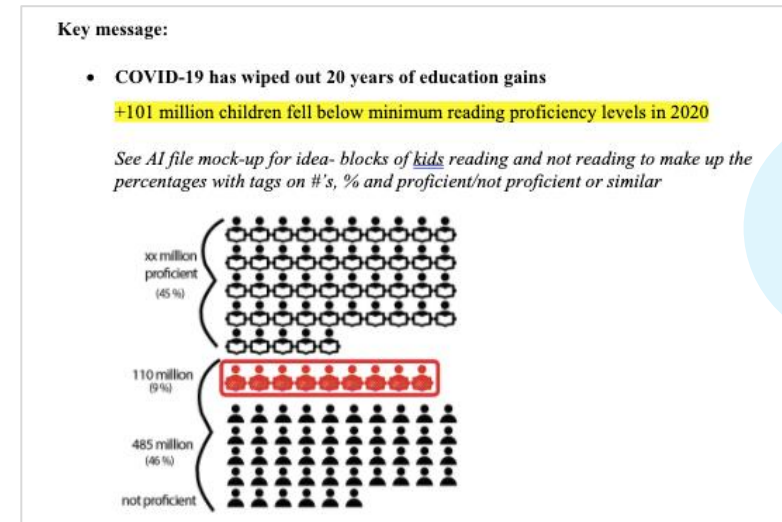


Resources

OVERVIEW INFOGRAPHICS IN THE SDG REPORTS– OUR PROCESS



Sketch



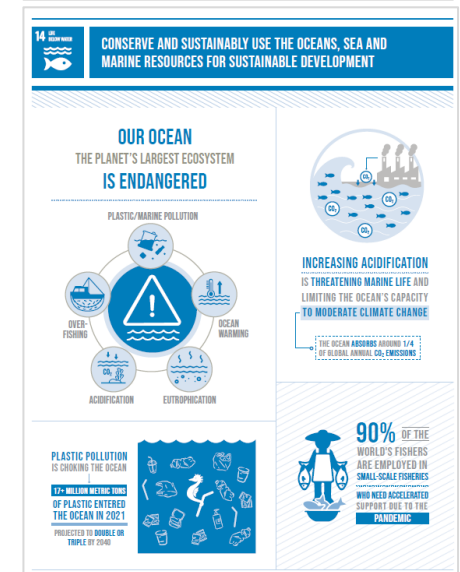
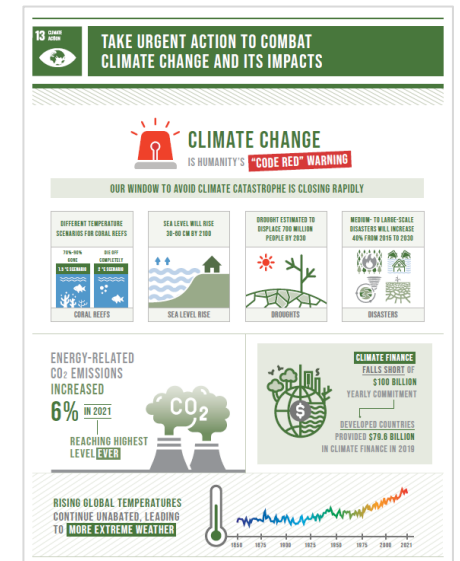
Sketch online

- ✓ Make sure the data is correct
- ✓ Review key messages to ensure they are clear and concise
- ✓ Explore/experiment with icon and/or graph options for each key message
- ✓ Get feedback, review and revise x 100,000 times (*estimated*)

OVERVIEW INFOGRAPHICS IN THE SDG REPORTS– UNSD LESSONS LEARNED

- ❖ Focus the messages: even though it is a Goal overview, limit to the most important points
- ❖ Simple is better: the icons and visual concepts should appeal to a large, universal audience and should therefore be as simple and understandable as possible
- ❖ White space is a good thing: it helps create separation and appeals to the eye (to keep in mind for icons and text)
- ❖ Don't be afraid to experiment: try other types of charts/graphs
- ❖ Focus on being data-driven

See Overview Infographics in [The SDG Report 2022](#)



ICONS & TEMPLATES



Link: <https://unstats.un.org/capacity-development/UNSD-FCDO/sdgs-data-visualization-toolkit/>

SDG Goal 10 Icons

Reduced Inequalities



Income Inequality 1

SDG Goal 13 Icons

Climate Action



Climate Crisis /
Global Warming /
Global Temperatures

Greenhouse Gas
Emissions

Natural Disast
Hurricane

SDG Goal 3 Icons

Good Health and Well-Being



SDG Goal 11 Icons

Sustainable Cities and Communities



SDG Icons

COVID-19



Hospitalization

Vaccination

COVID-19
Data

Death

Confirmed
Cases

BROCHURE TEMPLATES

Adobe Illustrator Files



16%

The average global share of urban area allocated to streets and open public spaces.

Short of the target of 30% streets and 10-15% open public spaces.

For more information, please visit: <https://unstats.un.org/sdgs/report/2021>

SUSTAINABLE CITIES AND COMMUNITIES

74

19

gily adopting which are key-related and

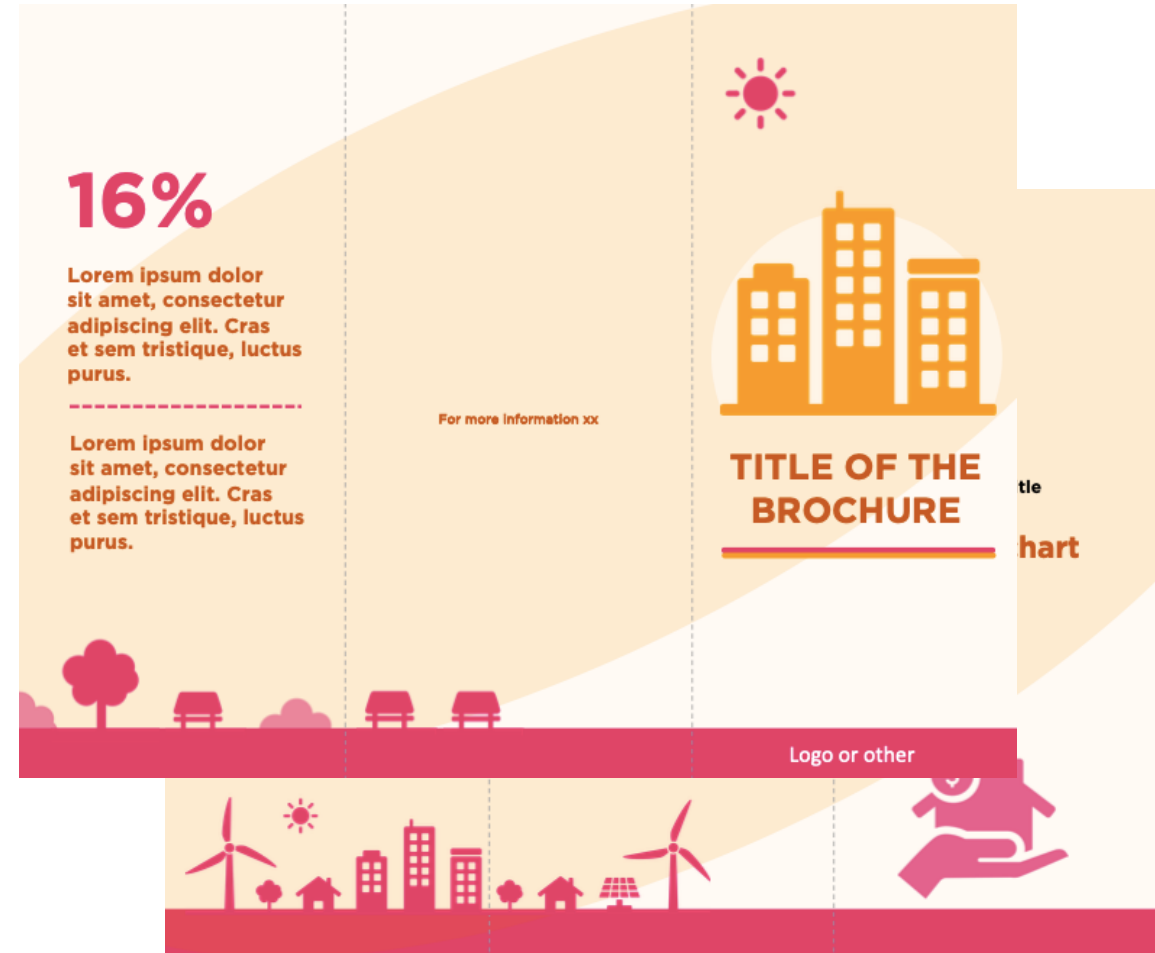
1 polices, 2020







Powerpoint Files




16%


Lorem ipsum dolor sit amet, consectetur adipiscing elit. Cras et sem tristique, luctus purus.

For more information xx

TITLE OF THE BROCHURE

Logo or other





FLYER & SOCIAL MEDIA CARD TEMPLATE

United Nations | Department of Economic and Social Affairs

SUSTAINABLE DEVELOPMENT GOALS

THE SUSTAINABLE DEVELOPMENT GOALS REPORT 2021

© UNICEF Ethiopia/Tewodros Tadesse

Launch: Tuesday, 6 July 2021
Time: 12:30 pm
UN WebTV | unstats.un.org/sdgs/report/2021/

The annual report reviews progress of the 2030 Agenda for Sustainable Development, using the latest available data and estimates to track global progress of the 17 Goals with in-depth analysis of selected indicators for each Goal. The report highlights the devastating impacts of COVID-19 on the SDGs and points out areas that require urgent and coordinated action. The report is prepared by UN DESA in collaboration with more than 50 international and regional organizations.

United Nations | Department of Economic and Social Affairs

SUSTAINABLE DEVELOPMENT GOALS

THE SUSTAINABLE DEVELOPMENT GOALS REPORT 2021

© UNICEF Ethiopia/Tewodros Tadesse

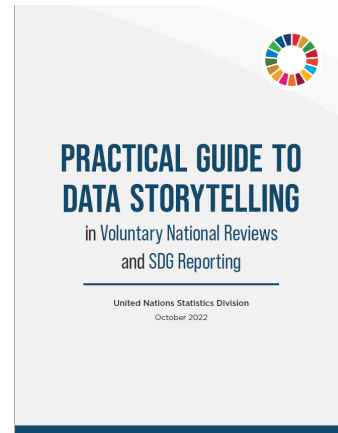
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How to analyse your audience

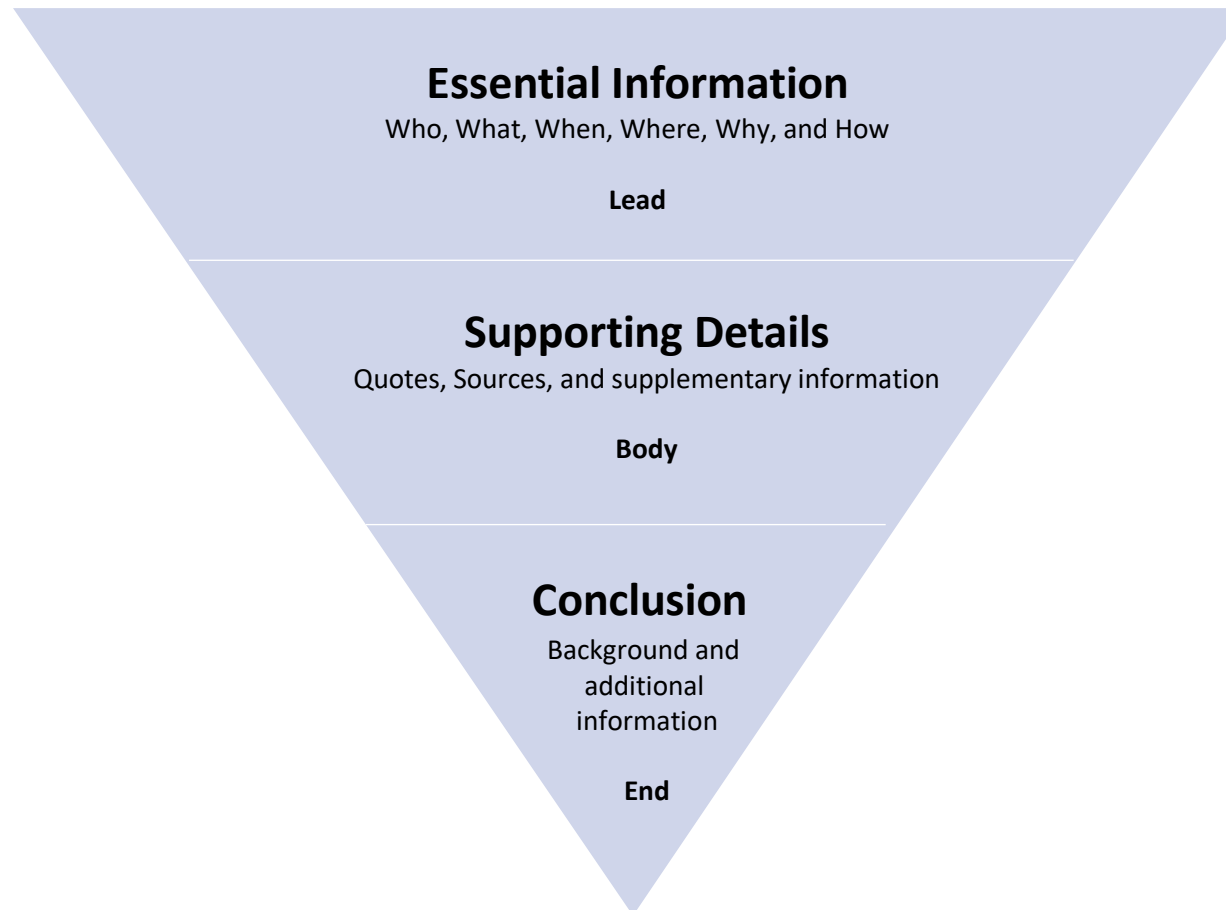
Some key questions for audience analysis:

- Who are the audiences?
- How is the data story relevant to the audiences?
- Why do the audiences need the information?
- How will the audiences use the information?
- What role(s) do the audiences play (decision making, influencing, or information gathering)?
- What data is available that would support the storytelling needed by the audiences?
- What do you need your audiences to do with the data story?
- How experienced are the audiences with data and the data story (laymen versus fluent)?
- What do the audiences care about in the data story (microdata, metadata, key figures, key messages, explanatory texts, guidance on how to understand statistics, insights for sharing, or in-depth analyses)?

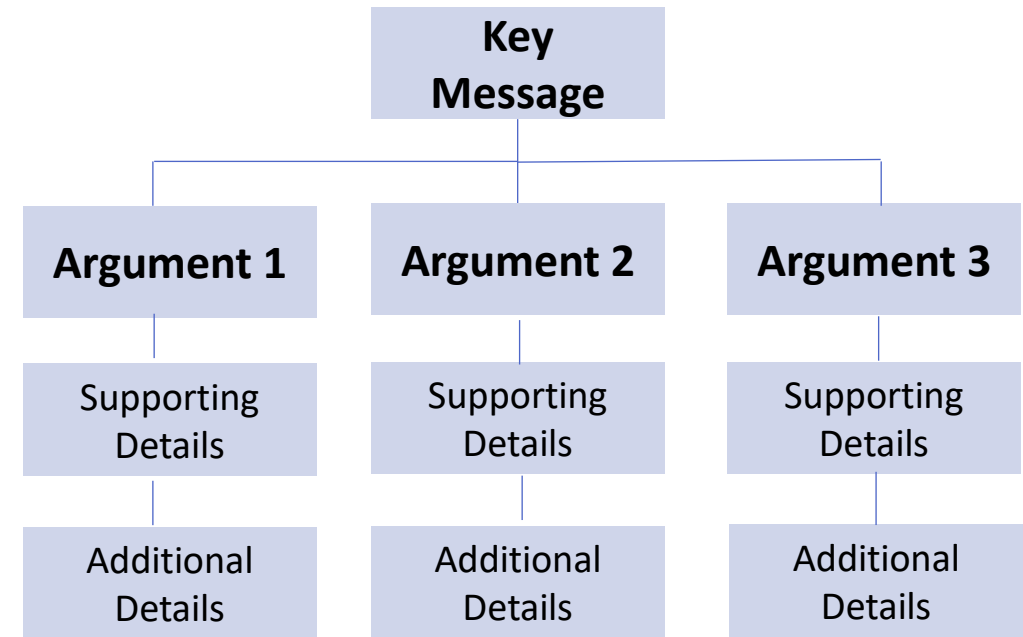
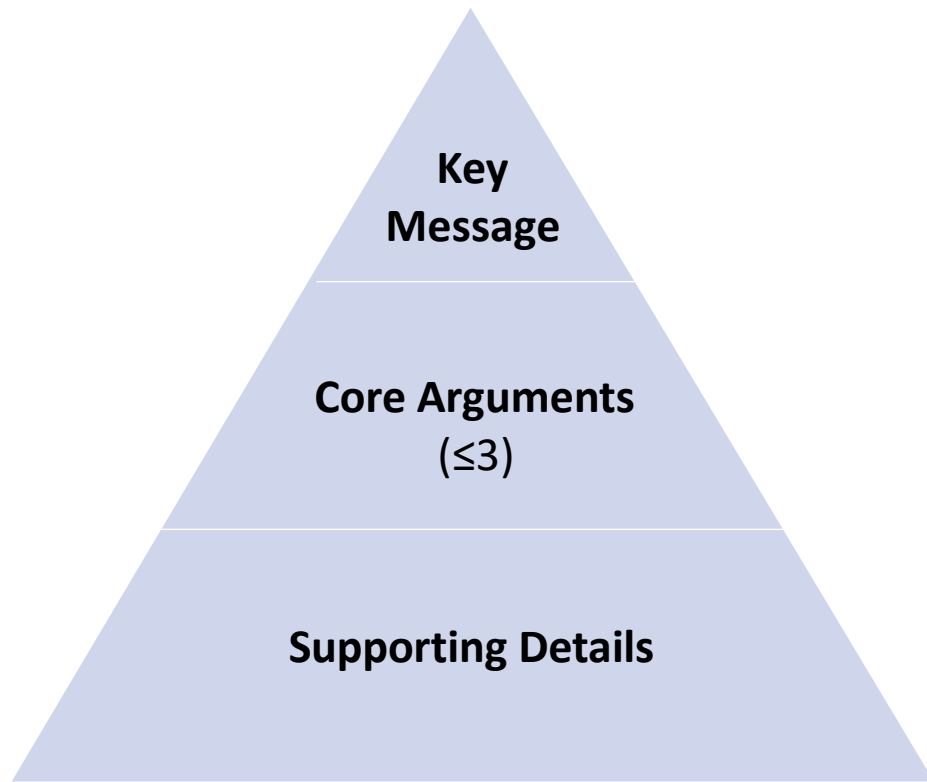


<https://unstats.un.org/sdgs/data-storytelling/>

How to structure a data story—Inverted Pyramid Model



How to structure a data story—Pyramid Model



Print writing and web writing are different

Print content is



passive



linear



Slow



detailed



complete

Web content is



active



interactive



fast



concise



Complete or fragmented





Resources: Data Storytelling

Data storytelling

- Nancy Duarte, “Data Story: Explain Data and Inspire Action Through Story”, IDEAPRESS Publishing, 2019; [Duarte DataStory®](#)
- Cole Nussbaumer Knaflic, “Storytelling with data”, Wiley, 2015, <https://www.storytellingwithdata.com/>
- Will Storr, “Science of Storytelling: Why Stories Make Us Human and How to Tell Them Better”, Harry N. Abrams, March 10, 2020
- <https://narrativescience.com/resource/webinar/how-to-tell-a-compelling-data-story-ft-zach-mazzoncini-data-storytelling-virtual-summit/>
- [Data Storytelling in Marketing: Venn Benchmark Report 2021](#)
- [Data Storytelling: The Essential Data Science Skill Everyone Needs](#)
- <https://www.nugit.co/what-is-data-storytelling/>
- <https://narrativescience.com/data-storytelling/>
- UNECE’s Making Data Meaningful series very relevant, including the Guide to Writing Stories About Numbers: <https://unece.org/statistics/making-data-meaningful>
- <https://www.juiceanalytics.com/writing/20-best-data-storytelling-examples>



Resources: Data Storytelling

Context and audience

- [Purdue Online Writing lab](#)
- <https://style.ons.gov.uk/category/writing-for-the-web/personas/>

Writing

- Barbara Minto, “The Pyramid Principle”, Prentice Hall; 3rd edition, January 1, 2010, <http://www.barbaraminto.com/>
- [Style.ONS: A guide to writing about statistics](#)
- <https://datajournalism.com/>
- <https://www.theguardian.com/membership/datablog/2021/sep/13/numbers-you-can-tell-stories-with-a-decade-of-guardian-data-journalism>
- <https://training.npr.org/2016/10/12/leads-are-hard-heres-how-to-write-a-good-one/>
- <https://www.clearvoice.com/blog/the-dos-donts-of-writing-a-good-lead-according-to-dear-megan/>
- [Story Structure: 7 Narrative Structures All Writers Should Know](#)



Resources: Data Visualization

Data Viz Overview:

- [Do's and Don'ts of Data Visualization](#) (European Environment Agency)
- [Data Visualization Toolkit](#) (basic)
- [Data Visualization: A practical introduction](#) (Kieran Healy)
- [Top 10 Data Visualization Best Practices](#) (visme.co)
- Chartio: [5 Data Visualization Best Practices: The Secrets Behind Easily Digestible Visualizations](#)
- GoodData: [5 Data Visualization Best Practices](#)
- [Data Visualization – Best Practices and Foundations](#)
- [Data visualization: basic principles](#)
- Nathan Yau, “Data Points: Data Visualization Than Means Something”, Wiley, 2013, <https://flowingdata.com/>

Documents:

- [Better Data Visualizations: A Guide for Scholars, Researchers, and Wonks](#) (Jonathan Schwabish)
- [The Wall Street Journal Guide to Information Graphics](#) (Dona Wong)
- UNECE Making Data Meaningful [Part I](#), [Part II](#)



Resources: Data Visualization

Chart help:

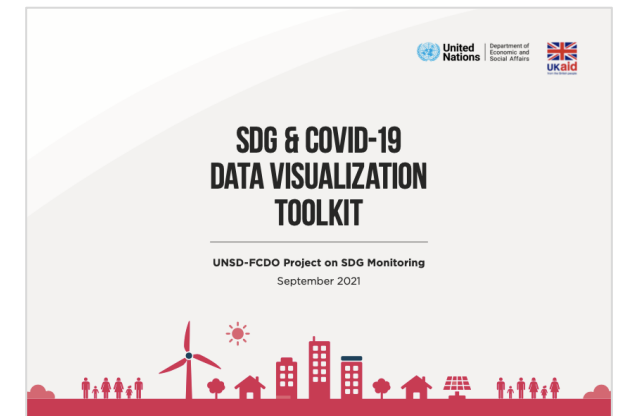
- [From Data to Viz](#): leads you to the most appropriate graph for your data. It links to the code to build it and lists common caveats you should avoid.
- [Data Viz Catalogue](#): helpful for selecting graphs, code to build it as well and blog with helpful hints.
- ONS Presenting Data [website](#)
- [Chart Do's and Don'ts](#) (Duke University)

Color:

- [How to Choose Colors for Your Data Visualizations](#) (Nightingale)
- [Choosing colors for your data visualization](#) (Cambridge Intelligence)
- [SDG Guidelines](#) (logo, colours, etc.)
- [Adobe Color](#)
- [Data Color Picker](#)

Icons/SDG data visualization:

- [SDG & COVID-19 Data Visualization Toolkit](#) (icons, templates, design considerations) (UNSD)





Resources: Data Visualization

Courses:

- [Principles of Data Visualization for Official Statistics and SDG Indicators](#) (SIAP, self-paced course)
- [Understanding data and statistics better – for more effective SDG decision making](#)
(Module 3: communicating with data) (UNITAR/UNSD/UN ECA)
- [Increasing user engagement around data and statistics](#) (UNSD/SIAP)

Qualitative data viz:

- [How to Visualize Qualitative Data](#)
- [Visualizing Qualitative Evaluation Data](#) presentation

Inspiration:

- Dataviz Inspiration [website](#)
- [Dear Data Project](#) by Giorgia Lupi
- [World Data Visualization Prize 2023](#) Poster Longlist (World Gov't Summit)
- [Xenographs](#)- weird, but sometimes useful charts



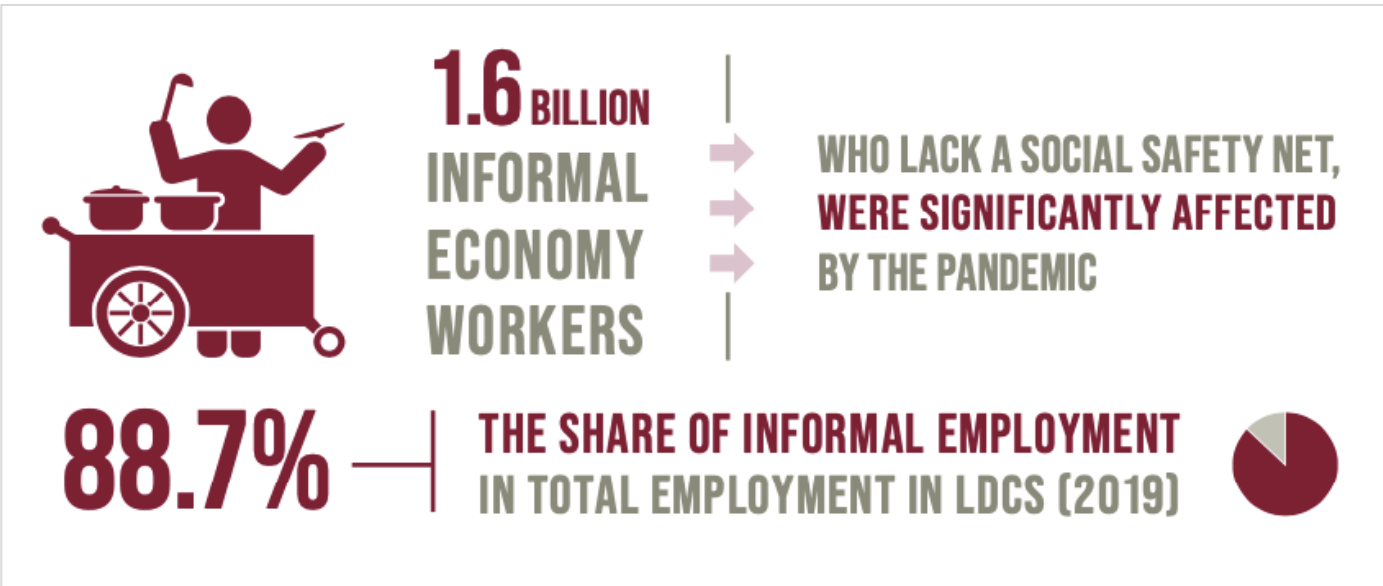
- **Does any country want to pilot the templates or the icons in some of their materials? If so, what kind of support would you need?**



SOME EXAMPLES OF WHAT TO LOOK OUT FOR FROM THE SUSTAINABLE DEVELOPMENT GOALS REPORTS' INFOGRAPHIC DEVELOPMENT

Identify the problem and indicate your answer

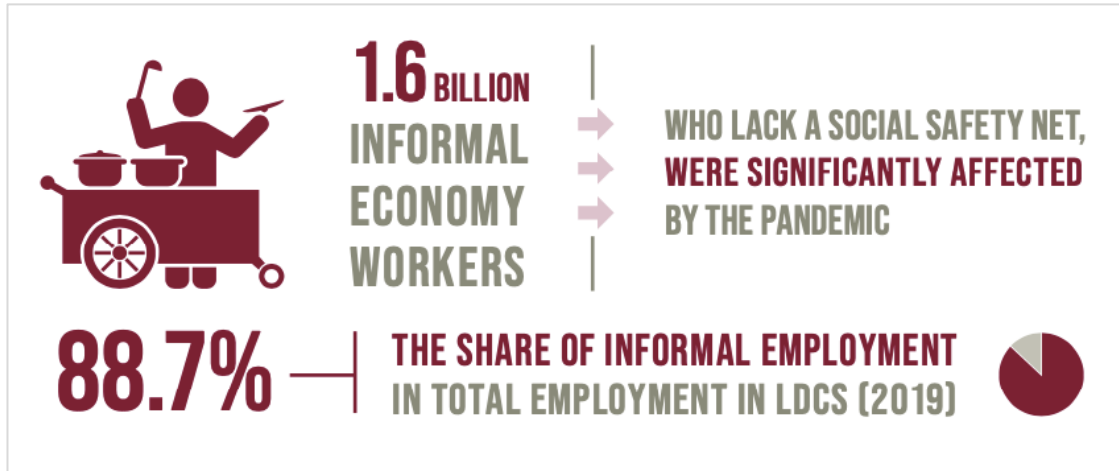
WHAT IS THE PROBLEM?



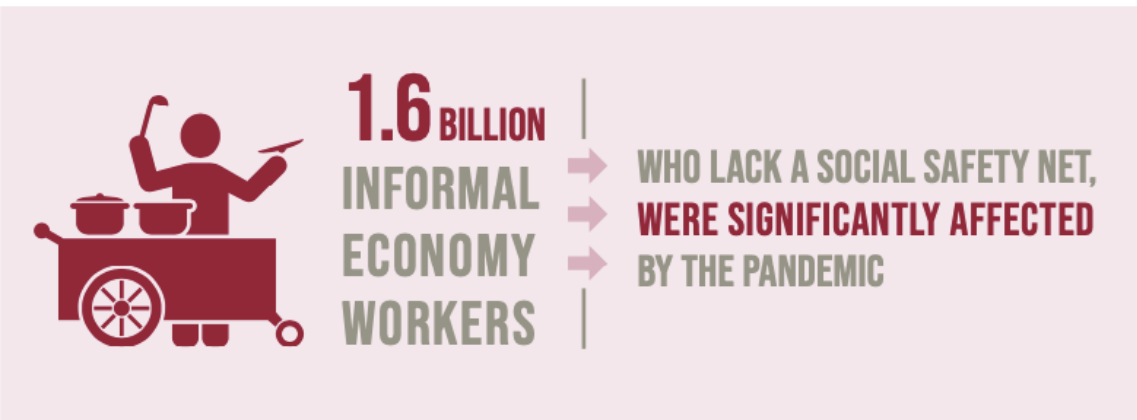
- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage
- E. Not data-driven

SDG REPORT EXAMPLE: DRAFT VS. FINAL

DRAFT



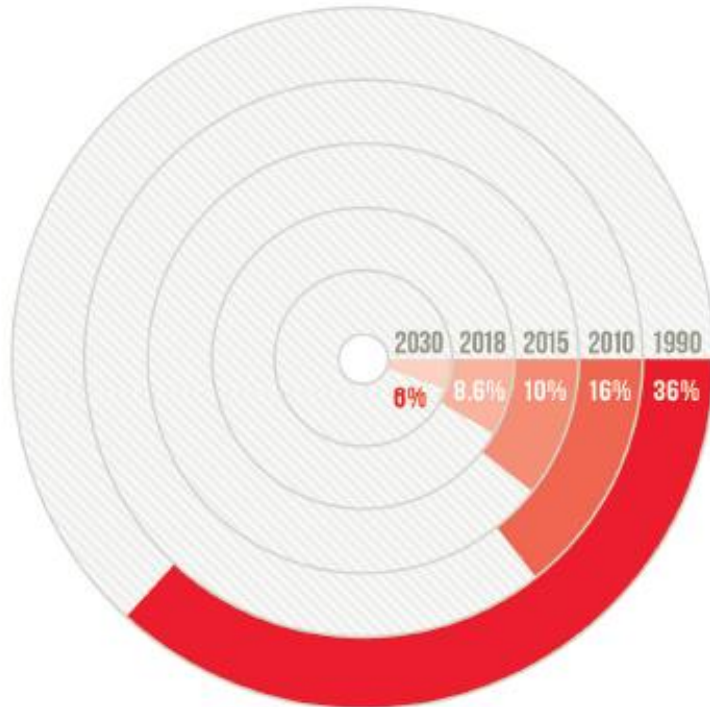
FINAL



- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage
- E. Not data-driven

WHAT IS THE PROBLEM?

== THE WORLD ==
IS NOT ON TRACK TO
END POVERTY BY **2030**

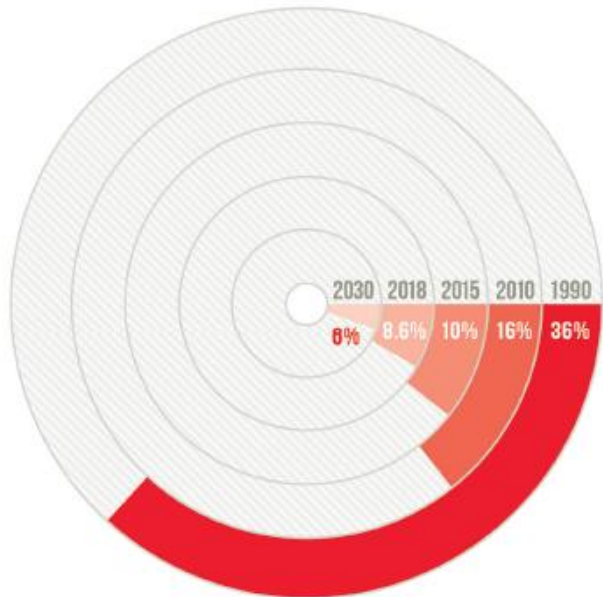


- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage
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SDG REPORT EXAMPLE: DRAFT VS. FINAL

DRAFT

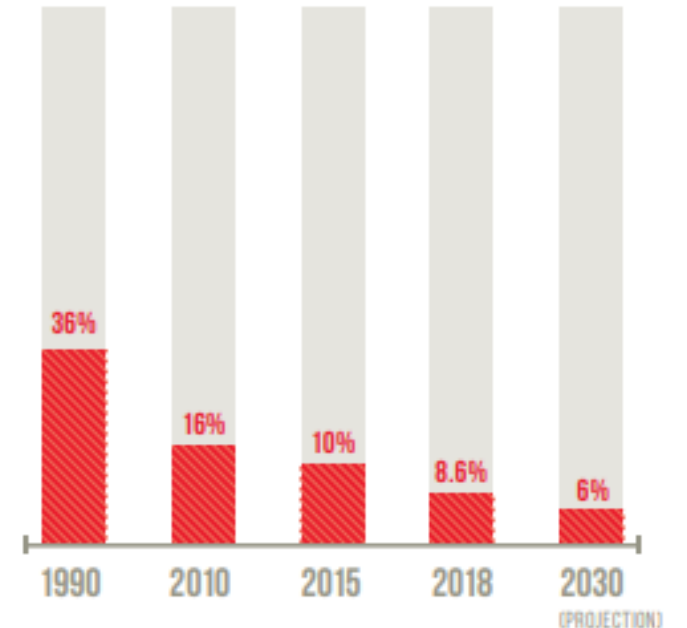
THE WORLD
IS NOT ON TRACK TO
END POVERTY BY 2030



- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage**
- E. Not data-driven

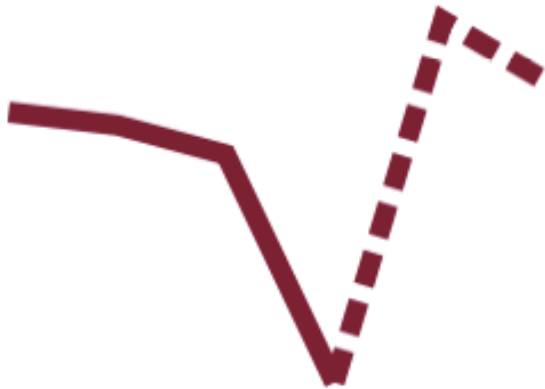
FINAL

THE WORLD
IS NOT ON TRACK TO
END POVERTY BY 2030



WHAT IS THE PROBLEM?

ECONOMIC RECOVERY IS UNDER WAY



**BUT FOR MANY COUNTRIES ECONOMIC
GROWTH IS ONLY EXPECTED TO RETURN TO
PRE-PANDEMIC LEVELS IN 2022 OR 2023**

- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage
- E. Not data-driven

SDG REPORT EXAMPLE: DRAFT VS. FINAL

DRAFT

ECONOMIC RECOVERY IS UNDER WAY



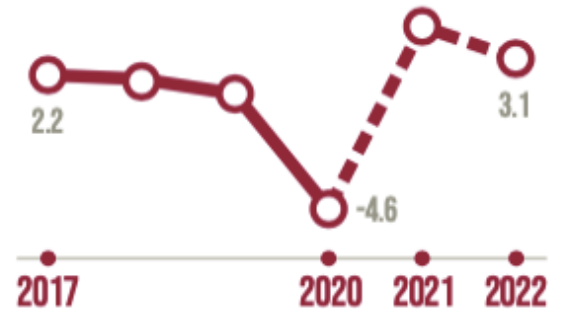
BUT FOR MANY COUNTRIES ECONOMIC GROWTH IS ONLY EXPECTED TO RETURN TO PRE-PANDEMIC LEVELS IN 2022 OR 2023

- A. Not focused: too many messages at one time
- B. Inappropriate icons
- C. Imbalance between visual and written elements
- D. Incorrect chart usage
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FINAL

ECONOMIC RECOVERY IS UNDER WAY







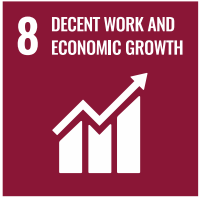








GLOBAL REAL GDP PER CAPITA
(2017-2022)



BUT FOR MANY COUNTRIES, ECONOMIC GROWTH IS EXPECTED TO RETURN TO PRE-PANDEMIC LEVELS ONLY IN 2022 OR 2023



Thank you

 <p>1 NO POVERTY</p>	 <p>2 ZERO HUNGER</p>	 <p>3 GOOD HEALTH AND WELL-BEING</p>	 <p>4 QUALITY EDUCATION</p>	 <p>5 GENDER EQUALITY</p>
 <p>6 CLEAN WATER AND SANITATION</p>	 <p>7 AFFORDABLE AND CLEAN ENERGY</p>	 <p>8 DECENT WORK AND ECONOMIC GROWTH</p>	 <p>9 INDUSTRY, INNOVATION AND INFRASTRUCTURE</p>	 <p>10 REDUCED INEQUALITIES</p>
 <p>11 SUSTAINABLE CITIES AND COMMUNITIES</p>	 <p>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</p>	 <p>13 CLIMATE ACTION</p>	 <p>14 LIFE BELOW WATER</p>	 <p>15 LIFE ON LAND</p>
 <p>16 PEACE, JUSTICE AND STRONG INSTITUTIONS</p>	 <p>17 PARTNERSHIPS FOR THE GOALS</p>			



United Nations

DESA
Statistics Division