CGT 270 Data Visualization
Makeover Monday #4 (2021 Dataset)

Name: Megan Jacobs **Date:** 11/09/2021

Lab section: Tuesday 9:30am – 11:20am

Show your work!!!

Acquire

Week: 5

Date: 01.02.2021 Year: **2021** Data: Renewables Overtake Fossil Fuels in Europe

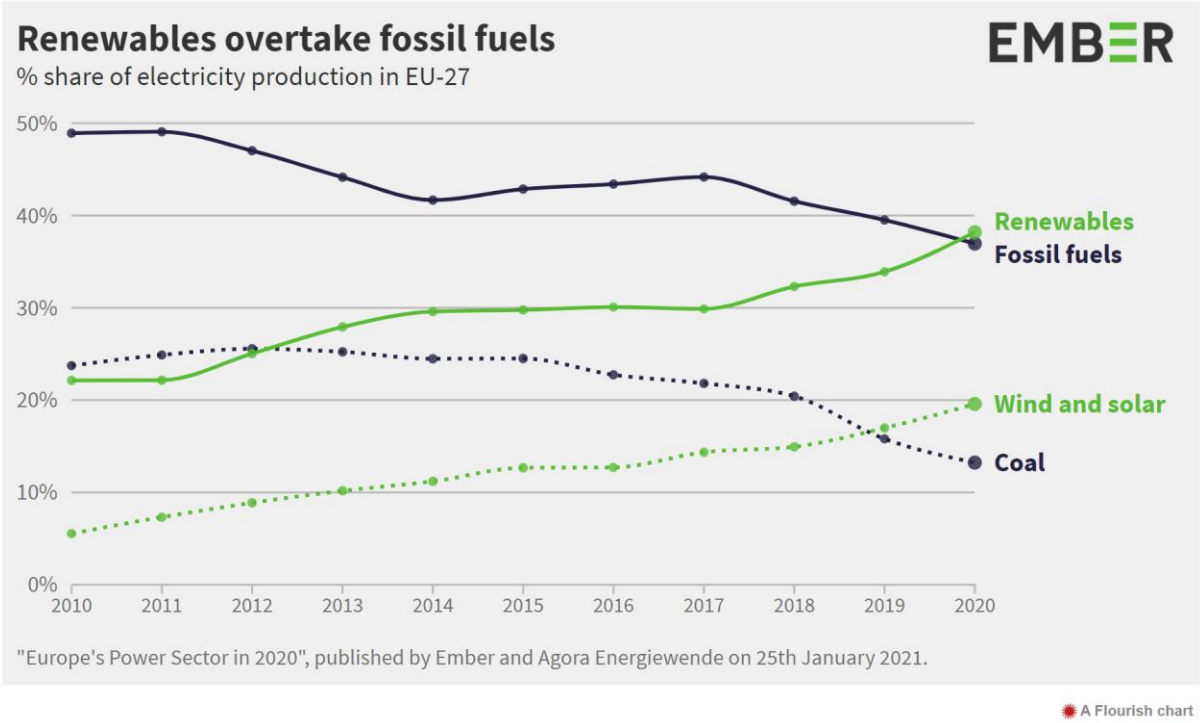
Source Article/Visualization:

https://ember-climate.org/project/eu-power-sector-2020/

https://data.world/makeovermonday/2021w5

https://www.makeovermonday.co.uk/data/data-sets-2018/

Represent



Critique

I enjoy the use of color within this visualization to show renewable energy compared to fossil fuels and I also enjoy how we can see the comparison of all renewable energy and fossil fuels. It is cool to see as well the comparison of wind and solar compared to coal.

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Some things that I dislike about this visualization is that there is no legend for the lines to show which is which and how close the renewable energy title is to the fossil fuels. Also there are no axis titles to both the X and Y axis. I plan to create a legend, create titles for the X and Y axis and try a new visualization since it is just a line graph.

This visualization falls under the data visualization category since the visualization is representing the data in a form that uses a system to represent the data in a simplified way. With that being said this visualization is an overview of the data since it is not focusing in on a specific area of the data, it is focusing on the broad scope of all the data. Finally, this diagram makes the user have convergent thinking because the user is being given a visualization that has already reduced the complexity of the data and simplified it into a visualization that we can take insights from.

Mine

What countries of Europe is this data set taking from? Can we narrow the countries of Europe to showcase which countries are using more renewable energy compared to others?

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Filter

Year	Area	Variable	Generation (TWh	Share of production (%)	Change on last year (%)	Change on last year (TWh)
2000	Austria	Fossil	16	27		
2000	Austria	Coal	6	10		
2000	Austria	Hard Coal	4	7		
2000	Austria	Lignite	1	2		
2000	Austria	Gas	8	13		
2000	Austria	Other fossil	3	5		
2000	Austria	Nuclear	0	0		
2000	Austria	Renewables	43	73		
2000	Austria	Hydro	42	70		
2000	Austria	Wind and solar	0	0		
2000	Austria	Wind	0	0		
2000	Austria	Solar	0	0		
2000	Austria	Bioenergy	2	3		
2000	Austria	Other renewables	0	0		
2000	Austria	Production	60			
2000	Austria	Net imports	-1			
2000	Austria	Demand	58			
2000	Belgium	Fossil	34	41		
2000	Belgium	Coal	13	16		
2000	Belgium	Hard Coal	13	16		
2000	Belgium	Lignite	0	0		
2000	Belgium	Gas	16	19		
2000	Belgium	Other fossil	5	6		
2000	Belgium	Nuclear	48	58		
2000	Belgium	Renewables	1	1		
2000	Belgium	Hydro	0	1		
2000	Belgium	Wind and solar	0	0		
2000	Belgium	Wind	0	0		
2000	Belgium	Solar	0	0		
2000	Belgium	Bioenergy	1	1		
2000	Belgium	Other renewables	0	0		
2000	Belgium	Production	83			
2000	Belgium	Net imports	4			
2000	Belgium	Demand	87			
2000	Bulgaria	Fossil	20	49		
2000	Bulgaria	Coal	17	42		
2000	Bulgaria	Hard Coal	3	7		
2000	Bulgaria	Lignite	14	34		
2000	Bulgaria	Gas	2	5		
2000	Bulgaria	Other fossil	1	2		
2000	Bulgaria	Nuclear	18	45		
2000	Bulgaria	Renewables	3	6		
2000	Bulgaria	Hydro	3	6		
2000	Bulgaria	Wind and solar	0	0		
2000	Bulgaria	Wind	0	0		
2000	Bulgaria	Solar	0	0		
2000	Bulgaria	Bioenergy	0	0		
2000	Bulgaria	Other renewables	0	0		
2000	Bulgaria	Production	41			
2000	Bulgaria	Net imports	-5			
2000	Bulgaria	Demand	36			

Data | Read me | Pivot, TWh | Pivot, % of production | Carbon intensities

Stakeholders

- Who is your audience? What assumptions did you make? What visualization tool/software did you use?

What to submit: This document in PDF format only (if you do not know how to do this, ask).

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Choose the best layout for your makeover visualization: Portrait or Landscape, Remove the page of the layout that you DO NOT choose. No blank pages!

NEW <u>Sketch your Makeover</u>

In the space below, sketch out your ideas for refined visualization. You must use pen/pencil and paper to sketch out your idea, then take a photo of your sketch and include it in the space below.

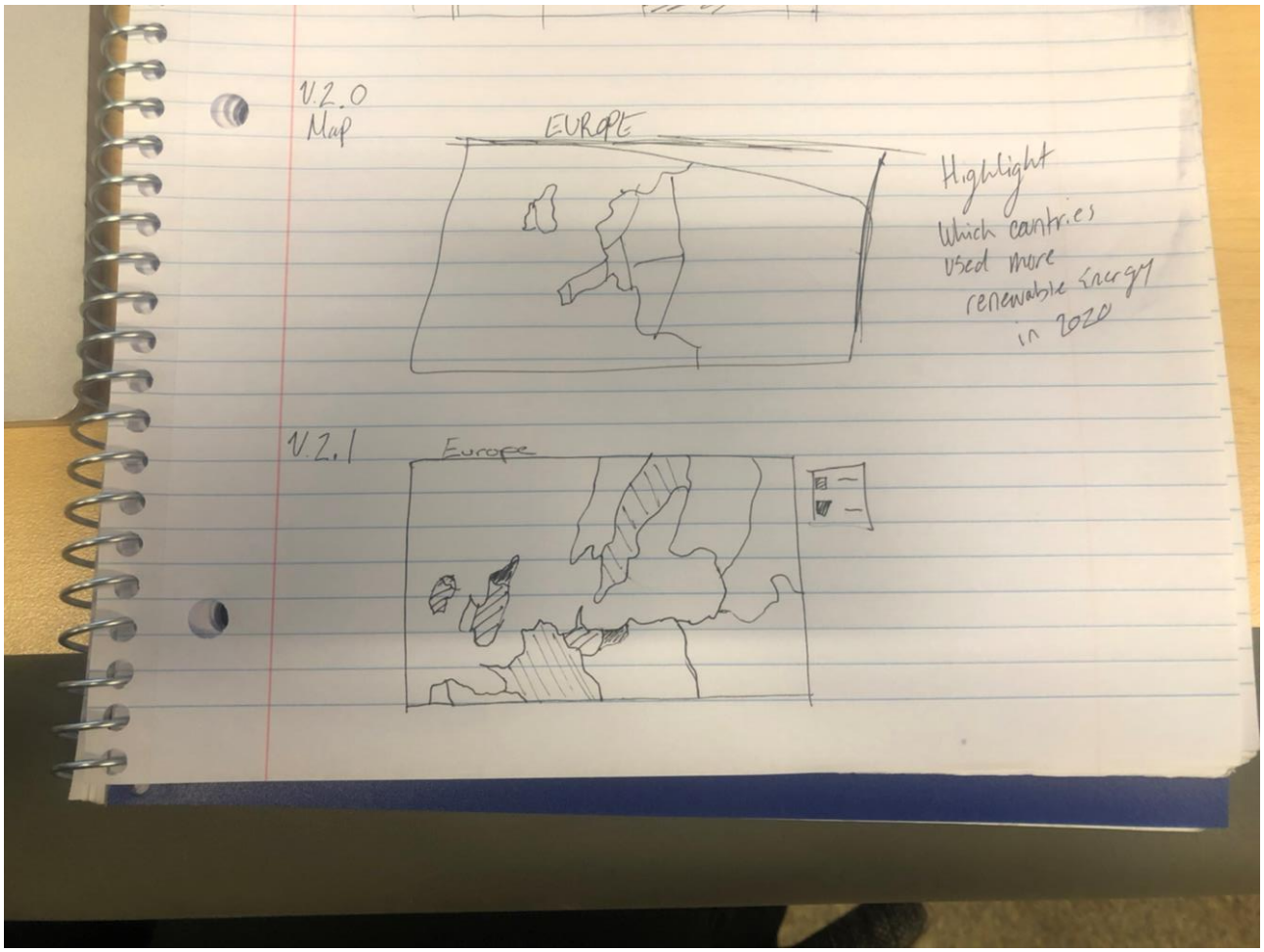

Figure 1: Sketches of Visualization

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Refine (Makeover – Portrait View)

In the space below, show the computer-generated version of your sketch using the visualization tool of your choice. DO NOT draw what you sketched. The visualization should be created with the visualization tool (Tableau, Excel, Power BI, etc., of your choosing). Remember, the purpose of visualization is *"insight."* Take and include a screenshot of your visualization and include it below. Use Data Visualization Best Practices (see data visualization checklist). You MUST use more advanced chart types for your makeover. **Chart types that are not allowed: bar (single or stacked), pie, line charts, scatter plots, no tables.**

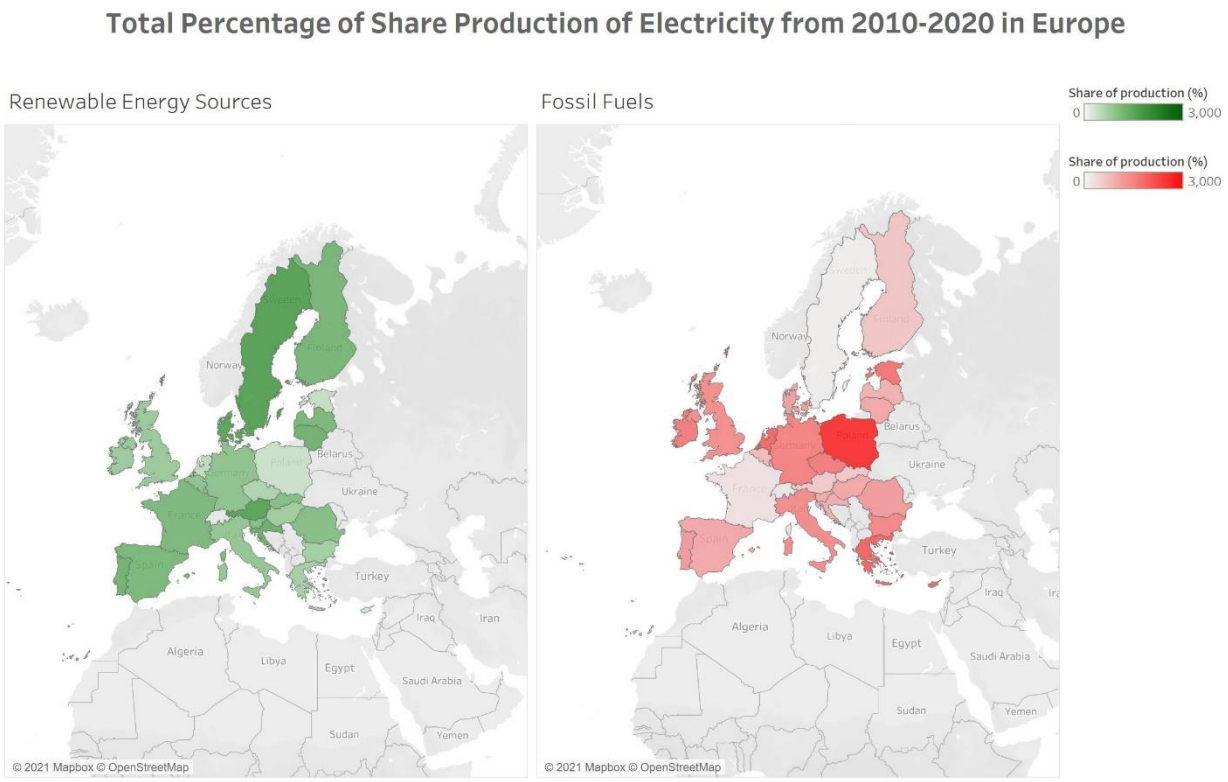

Figure 2. The final visualization makeover. This visualization compares percentage of share production of electricity in Europe from 2010 to 2020. On the right we can see the renewable energy sources and on the left we can see fossil fuels. In this comparison we can get a good understanding of which countries in Europe are making great strides towards.

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Resources

Data Visualization Checklist: http://stephanieevergreen.com/wp-content/uploads/2016/10/DataVizChecklist_May2016.pdf

How to give constructive criticism: https://personalexcellence.co/blog/constructive-criticism/

Sample Makeovers https://www.makeovermonday.co.uk/gallery/

Grading Rubric

Excellent (11-15 pts)	**Good (6 -10 pts)**	**Fair (2-5 pts)**	**Needs Improvement (0 - 1 pt)**

Meets **ALL** or most of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Meets **MOST** of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Consistently meets **SOME** of these: Makeover is esthetically pleasing (color, perception), best practices followed (insightful), Correct dataset downloaded; provided an interesting point of view of the data; critiqued previous makeover, critique is constructive (indicates one thing that is done well, and one thing that could be done differently, what will be done to improve the visualization), assumptions (more than one) are listed.	Little to no evidence of the understanding of the data visualization process. Lackluster makeover or no makeover. Little effort.
Sketch included: hand drawn [5 pts]	Sketch included, but was generated by computer [2 pts]	No sketch included. [0 pts]	
Makeover Monday Assessment Completed [5 pts]	Makeover Monday Assessment not completed [0 pts]		