

Palomar College
Computer Science & Information Technology
CSIT 226 – Lab/Team Project Write up Template

Student(s) Name: Team 2:

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- Osanya Felix,
- Oscar Lopez, and
- Don Way

Lab/Project name/number:

- **Project 1: Stepping Up to the Challenge of Greening the European Energy Sector**

State the problem:

- Climate change from the burning of fossil fuels is impacting life on the planet. An understanding of the energy sector in Europe can shed light on successful replacements and on countries that lag behind.

State the data set:

- 2021/W5: Renewables Overtake Fossil Fuels in Europe
 - “Data-file-Europe-Power-Sector-2020.xlsx” (European Power Sector)

State the questions to answer in the data visualization:

1. What was the fastest growing energy source across all of Europe?
2. Which country had the least use of fossil fuels?
3. Based on the data presented and the ratios of renewable to fossil fuel usage, which European country is “greener”?

Best Practices/Tips/Noteworthy thoughts:

- The team worked to keep the dashboard visuals simple, and directly related to the questions.

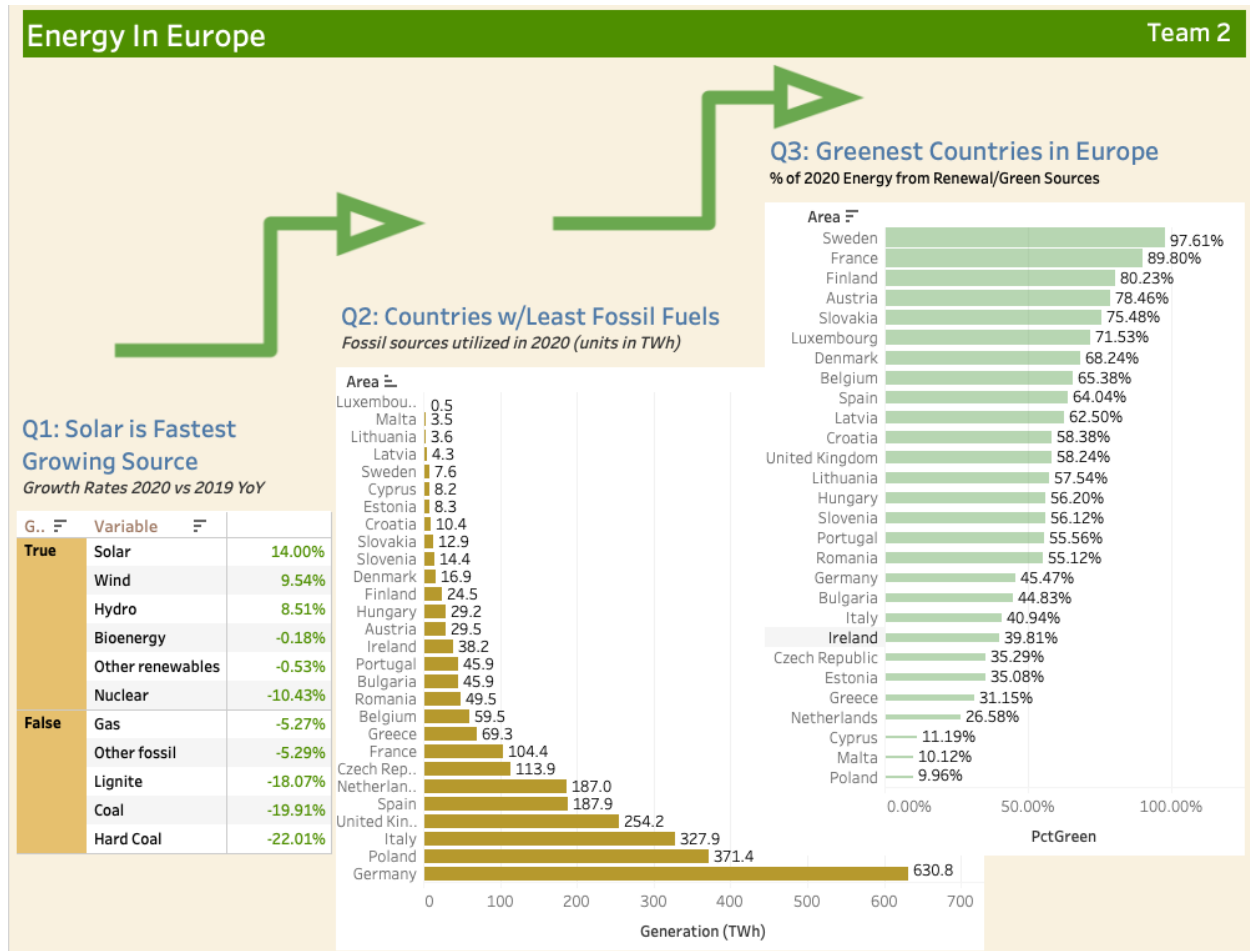
Challenges:

- It was an initial challenge to understand the meaning behind some of the ‘Variable’ (i.e., energy source) names, as we discovered several related to groupings of other ‘Variable’ names (e.g., ‘Wind and Solar’), or were values which needed to be excluded (e.g., “Production”, “Demand”). To help with this, we created a boolean calc for “Unique Fuel Source”
- It was interesting to realize that to solve several of the challenges, we needed to work toward two-step calculations. Specifically, creating a row-based calc field that would then be leveraged by an LOD calc.

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Data Visualization

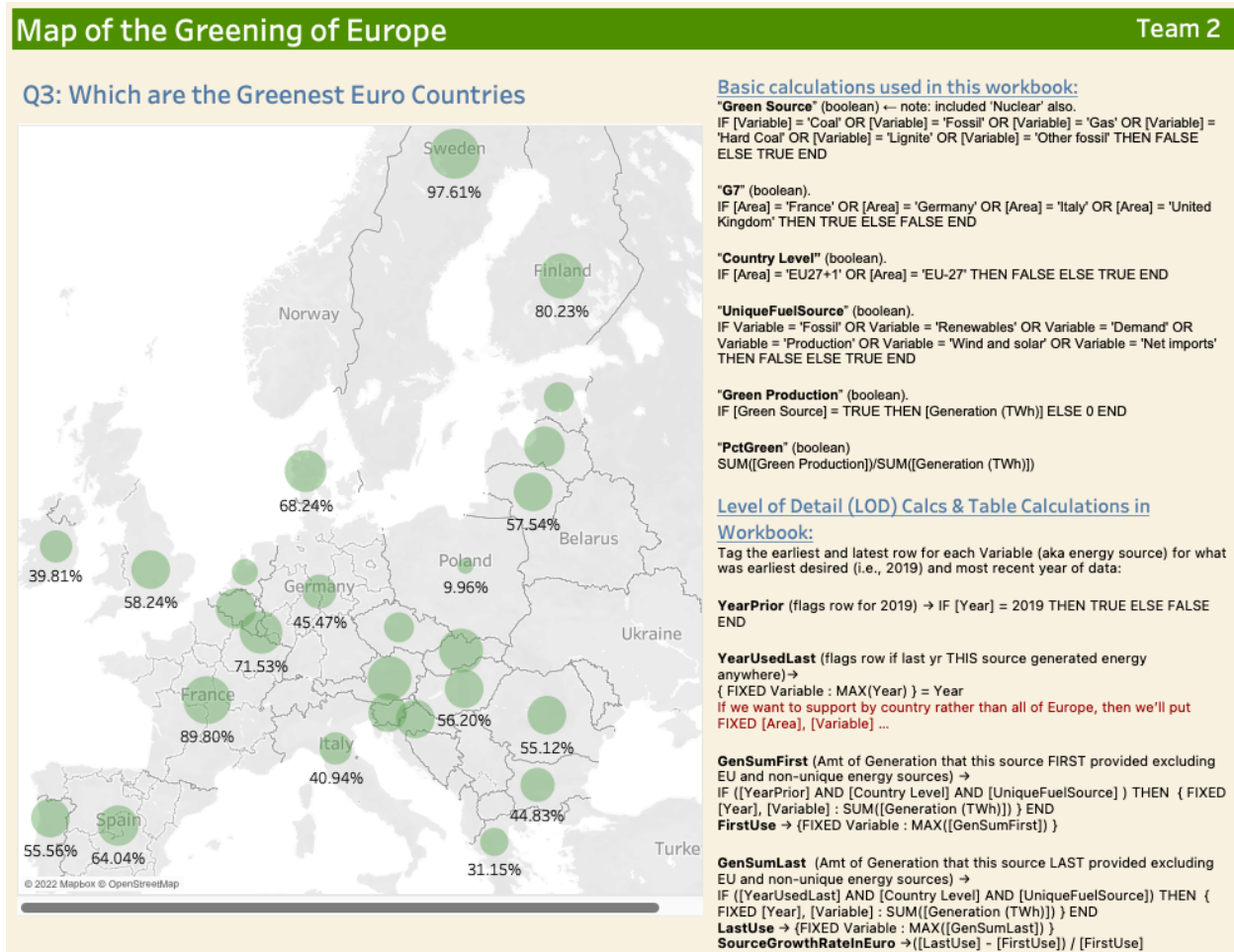
Dashboard 1: Energy in Europe



Providing answers to the three questions

Data Visualization (continued)

Dashboard 2: Map of the Greening of Europe



Also providing details on all calculations used in the workbook