

From: **Pivot & Co Data Science Team**

Business Case – Portfolio Allocation

Data Science Intern Recruitment

Context:

C&T is a Multi-National Company that sells industrial cheese across the globe. Laurel is the Marketing Director of Germany. She is responsible for the marketing activities across the 3 C&T's brands in the country. It is November 2020 and Laurel wants to allocate the yearly advertising & promotions (A&P) budget for each of her three brands for the year 2021. She came to your consulting firm to help her allocate the optimal brand level A&P budget.

Task:

You are the Data Science Consultant who is responsible for this project. **Your objective here is to assist Laurel to allocate the A&P budget for each of her three brands for the year 2021.**

Data:

- The marketing team does not have a robust data collection system. The best they could provide you with is monthly data.
- The provided dataset is disorganised and needed to be cleaned.
- Laurel's Marketing team has provided you with all the data they have on these brands. Some of them could be useful whereas the others could be redundant.
- "financial_data.xlsx" – An excel file with all the financial data associated with the brands.
- "other_marketing_data.xlsx" – An excel file with all other available features.

Rules of the case:

- You may take 48 hours to come up with a way to allocate the A&P budget for each of the brands and present it to Laurel.
- You can use any type of tool to assist you in this process (R, Python, Tableau, Excel, etc...). You have the liberty to use multiple tools at the same time too.
- As a final deliverable, you need to provide a PowerPoint presentation and working documents (Jupyter Notebook, Excel workbook, etc...)

Scoring:

- *Approach to the problem (methods behind the solution):* **30**
- *Execution of the solution:* **25**
- *Final Solution:* **15**
- *Quality of the working documents:* **15**
- *Quality of the PPT:* **15**

Tip:

The shortest distance between 2 points is always the straight line between them. The best solution could be the simplest one. As a Marketing Director, Laurel's objective is to maximise the sales. In other words, the target variable is 'Net Sales'.