Deloitte.

Business problem

Productivity is key to the development of local businesses and the wider economy. Over the past decade, productivity has slowed down globally with the UK lagging behind some other developed economies.

*"**Productivity** is commonly defined as a ratio between the output volume and the volume of inputs. In other words, it measures how efficiently production inputs, such as labour and capital, are being used in an economy to produce a given level of output." - OECD*

The economy's overall productivity is affected by a variety of factors. The wealth of data we now have access to can help us identify and target industries with low productivity levels, or inspire us to follow the example of initiatives within other nations to increase local productivity.

Our main business question is generally: How can we improve productivity within Scotland and the UK overall?

> Some targeted questions we are interested in for this specific project:
>
> • What factors can be improved to increase employee and/or business productivity across UK regions?
>
> • Which industries are lagging behind in terms of productivity and how could they catch up?
>
> • Can we predict overall UK productivity rates?

Challenges

This data was donated by Deloitte, which comes from the Equifax Ignite Direct data platform, which will host over 50 open data sources.

As this is real data, there are some challenges to bear in mind, and the data will need cleaned and narrowed down appropriately. You will be provided with the full open source dataset list in excel format. On the following page are a list of some of the potential estimates & factors for productivity that could be explored. Your task will be to figure out how to answer the questions above using the wealth of data provided.

You should consider the following as part of the challenges:

- **Data & Challenge Insight** – the depth of your investigation into the data and the maturity of your understanding of how productivity can be improved.

- **Insight Quality** – the quality and level of detail expressed in your data insight including visualisations.

- **Concept Feasibility** – the viability of your solution/concept in the wider context of the market such as practicality, cost & impact.

Audience

For this project, please consider the audience to be a general audience who aren't familiar with the project.

Productivity Estimates: UK
• Historical Productivity Estimates • Regional Productivity • Productivity by Industry division • Productivity in rural and urban areas • Public Service Productivity • Education Productivity • Labour Productivity

Productivity Estimates: International
• OECD Labour Productivity • OECD Multifactor Productivity • G7 Labour Productivity

Factors which affect Productivity
• Adult Education Levels • Tertiary Spending Expenditure • Cross country Infrastructure • Intangible Assets • Private Sector • Flexible Working • Quality of Human Capital • Research and Development spending • Employment protection • Trade Unions • Gross lending to big and small businesses • Weekly and average Wages • Technology Adoption • Employment • Ease of doing business • Mental Health • Openness to Markets • Economic Growth • Competitiveness

Useful links:
https://www.oecd.org/sdd/productivity-stats/40526851.pdf