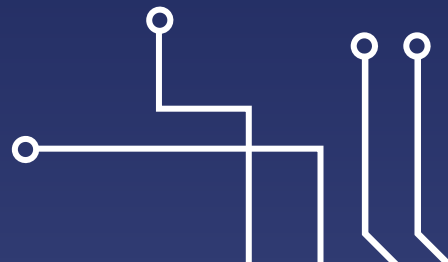




Data Engineering

Here is where your presentation begins





What is Data Engineering?

Business Use Case

Stakeholders involved:

- Directors: Know the **overall performance** of the global subsidiaries and the organization's financial health to make **important business decisions**
- Senior Manager: Better understanding of the teams' productivity and performance, in order to **better manage the team / division.**

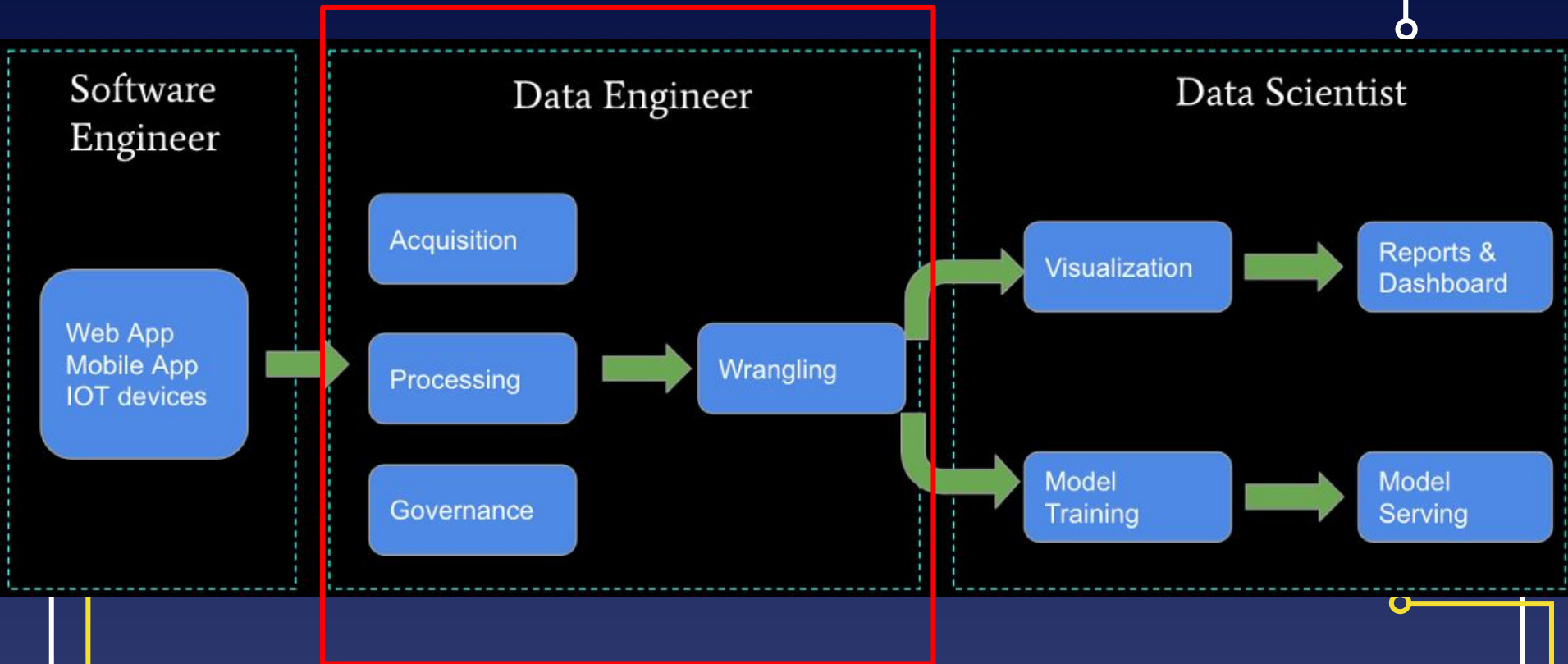
Current problem:

- Data is scattered across the **different source systems**, hence there is no single source of truth. This impacts business decision making, as the data across the organization is not properly captured / harmonized to facilitate that.
- In addition, reporting measures for different levels of management across different departments across the world **do not have the same metrics measure.**

Solution:

- **Harmonize data** across different source systems and **align all reporting metrics** to be the same, hence encouraging **data democracy**. Directors and C-suite management can then have an accurate view of the organizations current performance, financial health and operations management.
- This enables a smoother and **accurate business decision making process**

Role Differences



Why Data Engineering?

Definition: Practice of designing and building systems for **collecting, storing, and analyzing data**.

Why is it important?

- Accesses the **quality of data** before any analysis can be done (e.g. supports data scientist)
- Allows businesses to optimize data towards **usability and accessibility**, whereby inquiring common business problem may require complex solutions and processing

How it facilitates the solution:

- Technological innovation has made a big impact on the vitality of data. These encompasses cloud technology, open-source projects, and the **growth of data in scale**.
- Hence, the engineering skills are crucial when it **comes to organizing huge amounts of data**.
 - Data must not only be comprehensive but coherent

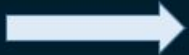
Data Engineer Role

DATA LAKES IN DATA ARCHITECTURE

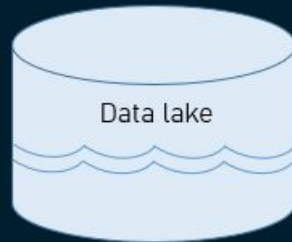
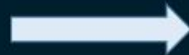
Data sources



ETL pipeline



ELT pipeline



Data marts



Transformation



Business users



Data scientists



altexsoft
software r&d engineering