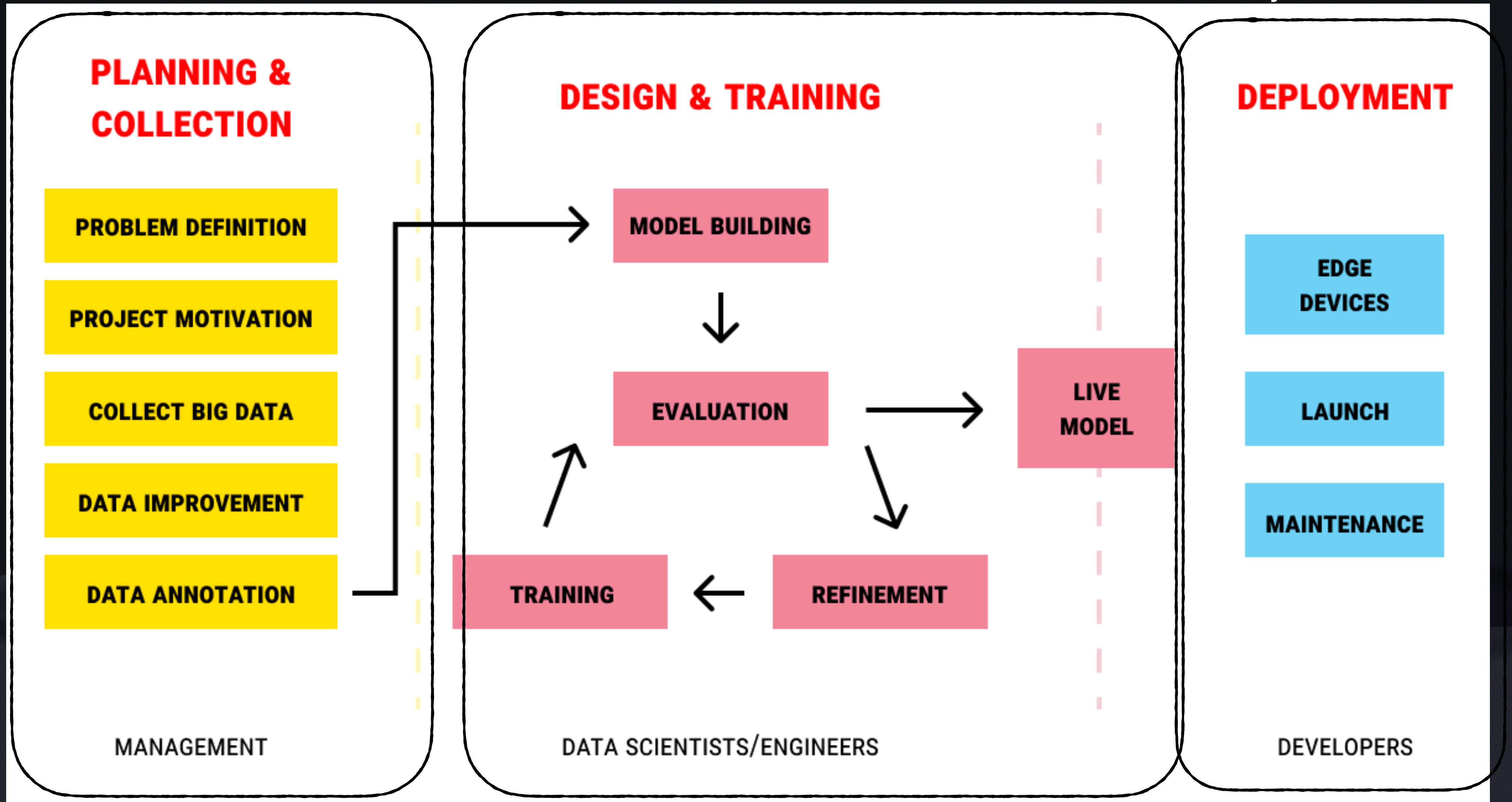


What is the AI Project Lifecycle: Process and Stages Simply Explained

Stages of AI Project

labelyourdata.com



Stages of AI Project

PLANNING & COLLECTION

PROBLEM DEFINITION

PROJECT MOTIVATION

COLLECT BIG DATA

DATA IMPROVEMENT

DATA ANNOTATION

MANAGEMENT

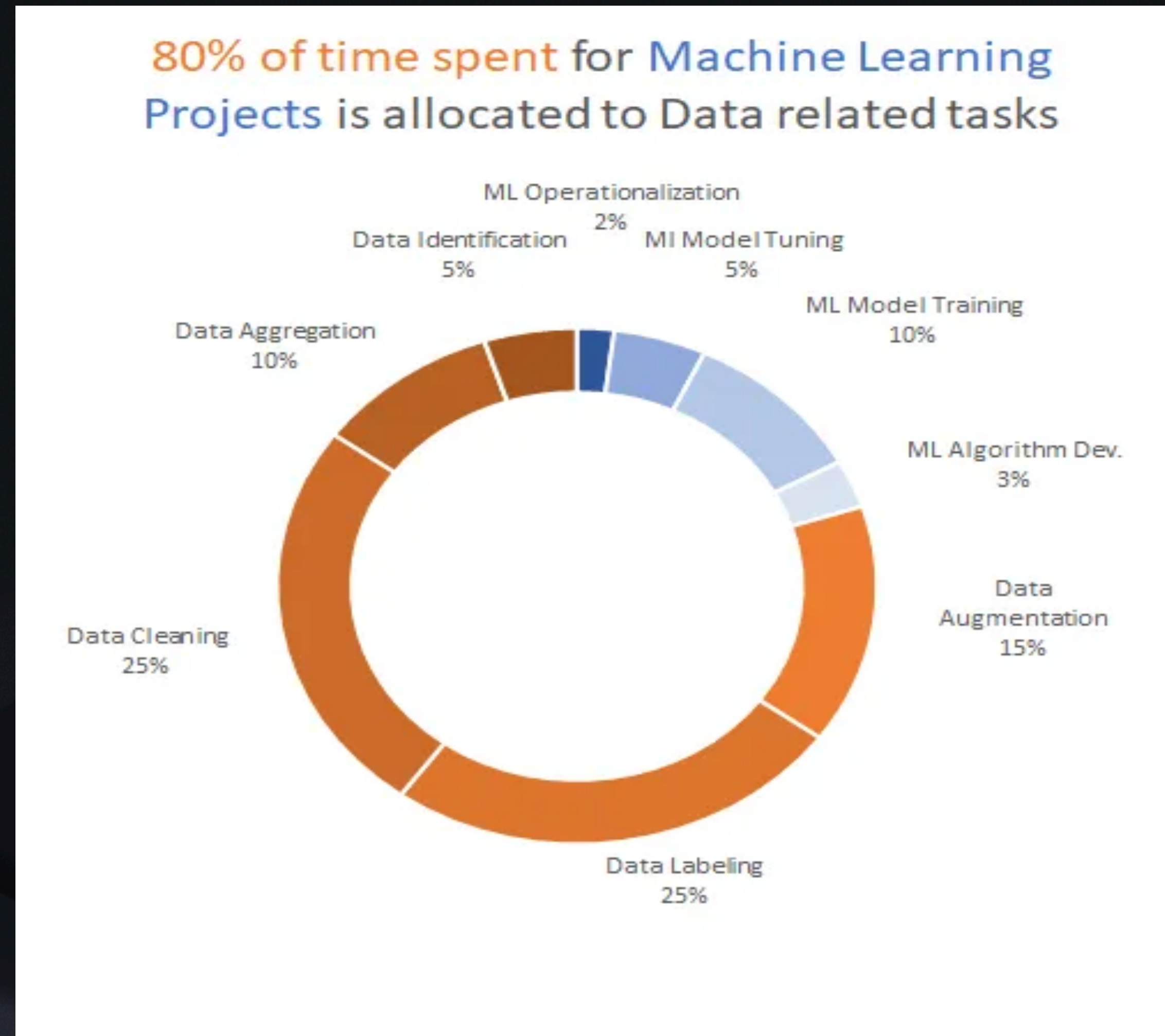
Stage I: Planning and Collecting Data for an AI Project

- **Identify the problem to be solved or the opportunity to be explored using AI.**
- **In planning an AI project, obtaining the necessary data is crucial for the success of the endeavor.** Data serves as the foundation upon which machine learning models are built and trained. The quality, quantity, and relevance of the data directly impact the performance and accuracy of the AI system being developed.
- **Data cleaning is a part of the data preparation process in AI projects.** It involves fixing incorrect, incomplete, duplicate, or erroneous data to improve data quality and ensure more accurate outcomes in decision-making processes.

An example of a real-life project: Predictive maintenance system for manufacturing equipment.

- The need to reduce downtime and maintenance costs for critical machinery in a manufacturing plant.
- The goal is to predict equipment failures before they occur to enable proactive maintenance.
- Data is collected from sensors and various sources.

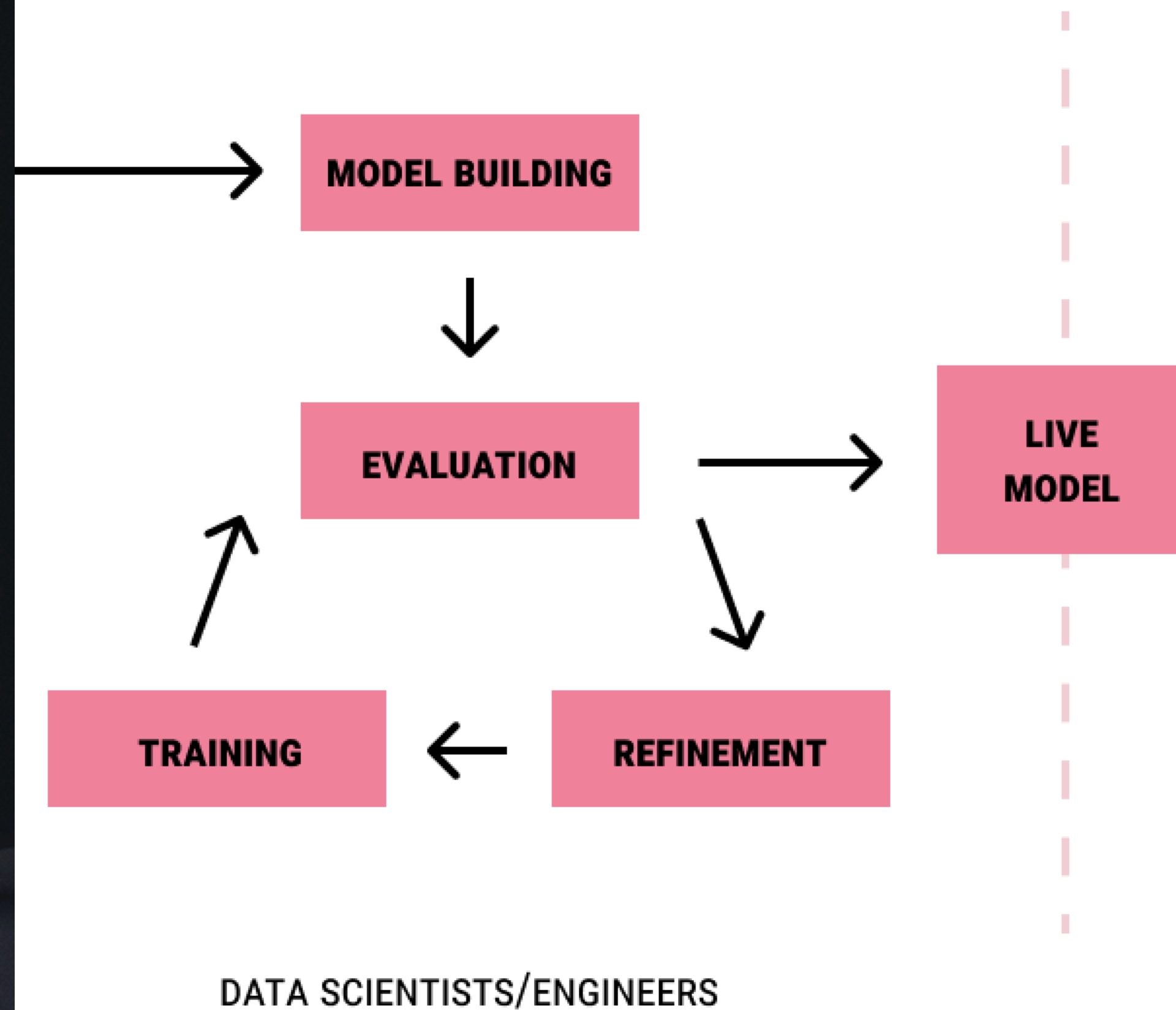
Data Preparation and Labelling is Crucial for Success



<https://medium.com/>, Source: Cognylitica; Factordaily

Stages of AI Project

DESIGN & TRAINING



Stage II: Training your ML Model

- Develop and train the AI model that will solve the defined problem. Selecting the appropriate machine learning algorithm for your specific problem is essential.
- Evaluate the trained model's performance on unseen data. Refine and tweak the model based on its performance.
- Be mindful of ethical considerations such as bias, fairness, and privacy when training your ML model. Ensure that your AI solution adheres to ethical standards and regulations.

Predictive maintenance system for manufacturing equipment

- Machine learning algorithms are used to develop predictive maintenance model.
- The model is trained to recognize patterns of potential equipment failures.

Stages of AI Project

DEPLOYMENT

EDGE
DEVICES

LAUNCH

MAINTENANCE

DEVELOPERS

Stage III: The Deployment and Maintenance of the AI Model

- Integrate the model into a production environment to start solving real-world problems.
- Monitor the model's performance post-deployment, update it with new data, and refine it based on user feedback.

Predictive maintenance system for manufacturing equipment

- Deploy in the manufacturing plant's operational environment.
- Continuously monitor and fine-tune the model

What is the AI Project Lifecycle: Process and Stages Simply Explained