



AIMS | African Institute for
Mathematical Sciences
NEXT EINSTEIN INITIATIVE

End-to-End Machine Learning

The what and the why

End2end ML , Lifecycle ,

What is an End-to-End Machine Learning ?

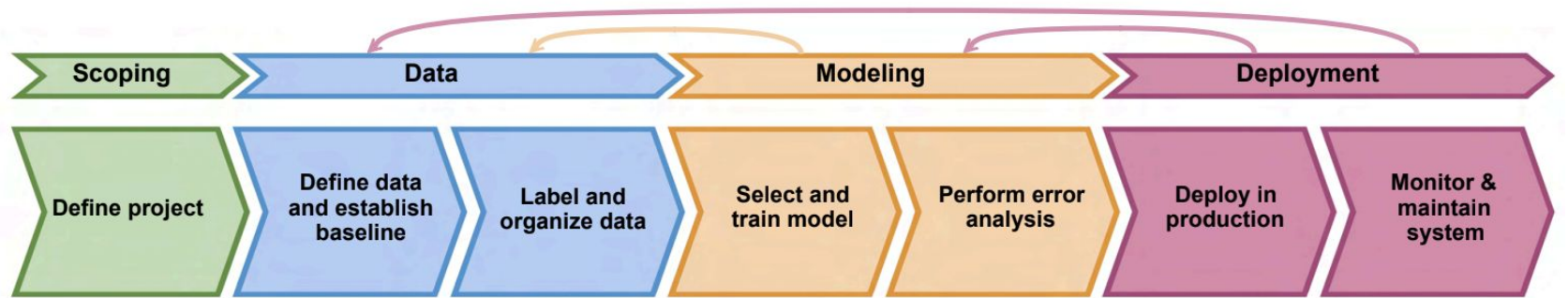
End-to-end describes a process that takes a system or service from beginning to end and delivers a complete functional solution

End-to-End ML is the workflow where we have different phases from the definition of the project to the production

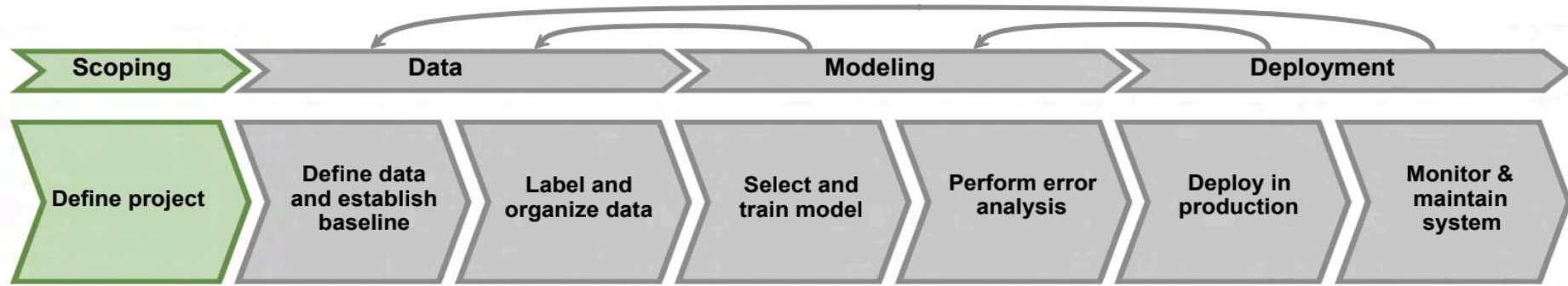
The different phases are called Life cycle of the project

What is Machine Learning Lifecycle ?

The lifecycle of an ML project is divided into different components Specifically, 4 components are scope definition, data, modeling and deployment .

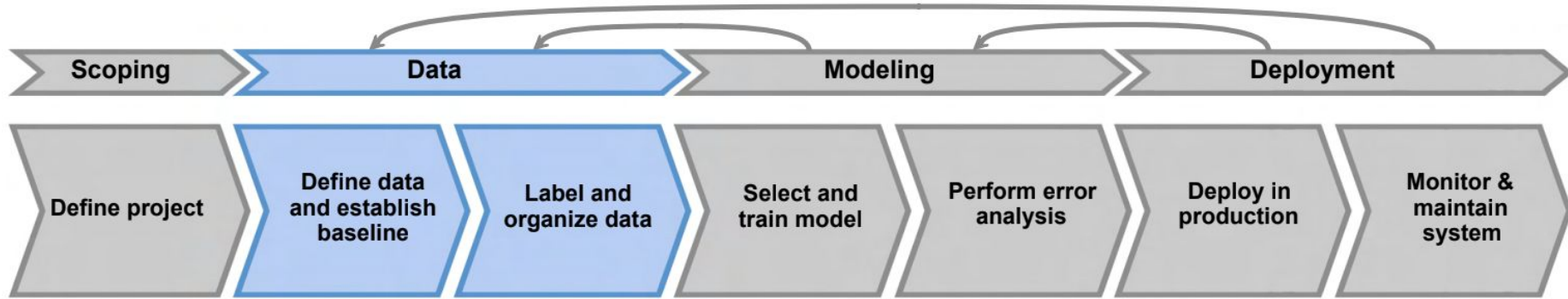


Scoping Stage



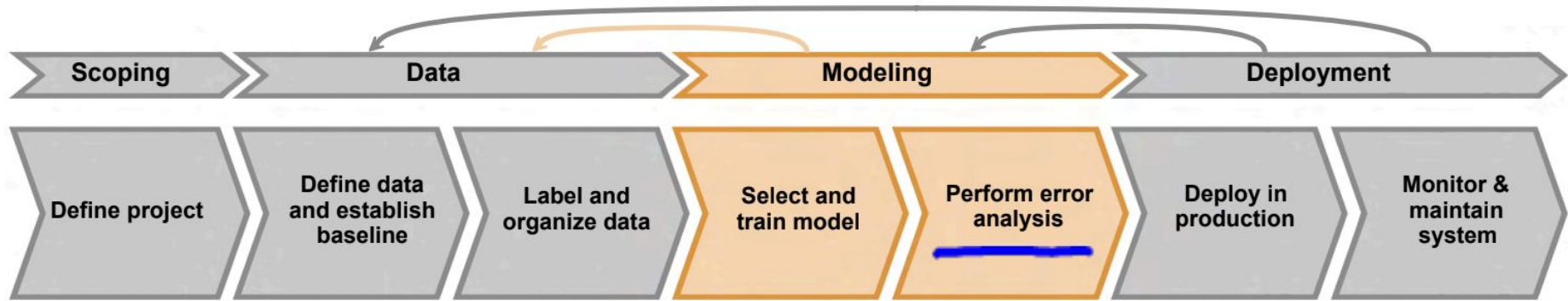
- Brainstorm of the Project
- Define the goals
- Assess the feasibility and potential Problems
- Estimate Resources and Timeline

Data Stage



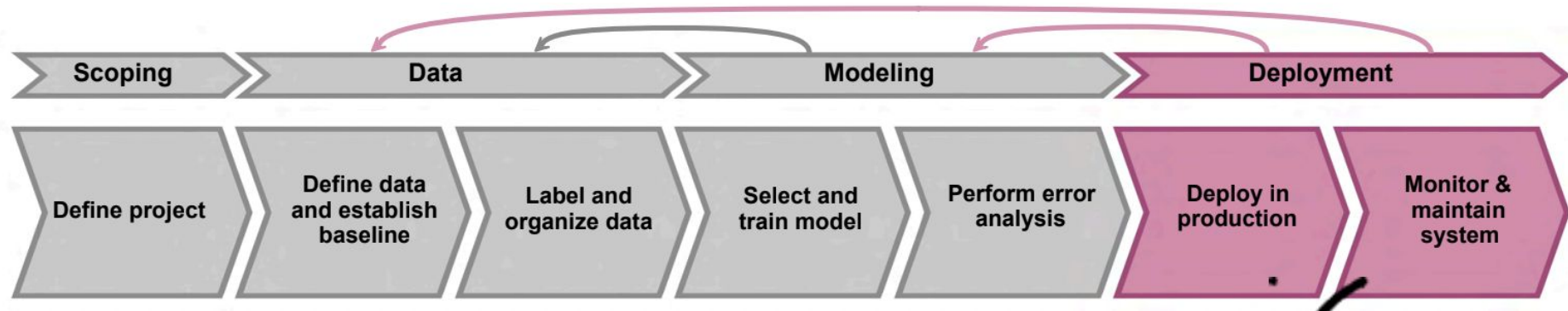
- Define the data
- Is labeled data or unlabeled data ?
- Data Analysis , Data Preprocessing
- Data Augmentation
- Ensure the quality of the data

Modeling Stage



- Choose the appropriate learning Algorithm
- From scratch / Transfert learning
- Define the hyperparameter
- Perform error analysis

Deployment Stage



- Software engineering approach to deploy and maintain in production
- Platform for monitoring

Live demo

