

# Identity and Purpose Checklist

## Data Management (DM)

### Validation and Verification of Data

- Has the applicant validated and verified the data throughout the data management process? [YES/NO]
- Are the data management requirements addressed? [YES/NO]

### Data Verification Step

- Is a data verification step performed to confirm the appropriateness of the defined ODD and data sets used for training, validation, and verification? [YES/NO]

## Machine Learning (LM)

### ML Model Architecture

- Is the ML model architecture described? [YES/NO]

### Learning Management and Training Processes

- Are the requirements pertaining to learning management and training processes captured? [YES/NO]
  - Model family and model selection: [YES/NO]
  - Learning algorithm(s) selection: [YES/NO]
  - Explainability capabilities of the selected model: [YES/NO]
  - Activation functions: [YES/NO]
  - Cost/loss function selection describing the link to performance metrics: [YES/NO]
  - Model bias and variance metrics and acceptable levels: [YES/NO]
  - Model robustness and stability metrics and acceptable levels: [YES/NO]
  - Training environment (hardware and software) identification: [YES/NO]
  - Model parameters initialisation strategy: [YES/NO]
  - Hyper-parameters identification and setting: [YES/NO]
  - Expected performance with training, validation, and test sets: [YES/NO]

### Credit Sought from Training Environment

- Is the credit sought from the training environment documented? [YES/NO]

### Quantifiable Generalisation Bounds

- Are quantifiable generalisation bounds provided? [YES/NO]

### Model Training Documentation

- Is the result of model training documented? [YES/NO]

## **Model Optimisation and Its Impact**

- Is any model optimisation (e.g. pruning, quantization) documented, and its impact on model behavior or performance assessed? [YES/NO]

## **Reviewer Checklist**

### **Data Management (DM)**

- Has the applicant validated and verified the data throughout the data management process? [YES/NO]
- Are the data management requirements addressed? [YES/NO]
- Is a data verification step performed to confirm the appropriateness of the defined ODD and data sets used for training, validation, and verification? [YES/NO]

### **Machine Learning (LM)**

- Is the ML model architecture described? [YES/NO]
- Are the learning management and training processes requirements captured? [YES/NO]
- ☐ Model family and model selection: [YES/NO]
- ☐ Learning algorithm(s) selection: [YES/NO]
- ☐ Explainability capabilities of the selected model: [YES/NO]
- ☐ Activation functions: [YES/NO]
- ☐ Cost/loss function selection describing the link to performance metrics: [YES/NO]
- ☐ Model bias and variance metrics and acceptable levels: [YES/NO]
- ☐ Model robustness and stability metrics and acceptable levels: [YES/NO]
- ☐ Training environment (hardware and software) identification: [YES/NO]
- ☐ Model parameters initialisation strategy: [YES/NO]
- ☐ Hyper-parameters identification and setting: [YES/NO]
- ☐ Expected performance with training, validation, and test sets: [YES/NO]

## **Additional Requirements**

- Is the bias-variance trade-off in model family selection accounted for? [YES/NO]
- Are quantifiable generalisation bounds provided? [YES/NO]
- Is the result of model training documented? [YES/NO]
- Is any model optimisation (e.g. pruning, quantization) documented, and its impact on model behavior or performance assessed? [YES/NO]