

Here is the checklist in Markdown format:

Identity and Purpose Checklist

AI/ML Constituent Requirements

- Are safety requirements allocated to the AI/ML constituent? (e.g. performance, reliability, resilience) [YES/NO]
- Are information security requirements allocated to the AI/ML constituent? [YES/NO]
- Are functional requirements allocated to the AI/ML constituent? [YES/NO]
- Are operational requirements allocated to the AI/ML constituent, including AI/ML constituent ODD monitoring and performance monitoring (to support related objectives in Section C.3.2.6)? [YES/NO]
- Are other non-functional requirements allocated to the AI/ML constituent (e.g. scalability)? [YES/NO]
- Are interface requirements defined? [YES/NO]

AI/ML Constituent ODD Characterization

- Has a precise characterization of the AI/ML constituent ODD been performed, refining the defined OD? [YES/NO]
- Are the parameters pertaining to the AI/ML constituent ODD defined and traced back to corresponding parameters in the OD when applicable? [YES/NO]

Inference Model Verification

- Has an evaluation of the performance of the inference model based on test data been performed? [YES/NO]
- Are the results of the model verification documented? [YES/NO]
- Is the final performance with the test data set measured and fed back to the safety assessment process? [YES/NO]
- Are metrics defined under Objective SA-01 used for this evaluation? [YES/NO]

Inference Model Stability Verification

- Has verification of the stability of the inference model been performed? [YES/NO]
- Have cases addressing anticipated perturbations in the operational phase due to fluctuations in data input (e.g. noise on sensors) and having a possible effect on the inference model output been considered? [YES/NO]
- Are nominal, singular points, edge, and corner cases used for verification of the inference model stability throughout the ML constituent ODD? [YES/NO]

Inference Model Robustness Verification

- Has verification of the robustness of the inference model in adverse conditions been performed? [YES/NO]
- Are test cases including edge or corner cases within the ODD (e.g. weather conditions like snow, fog for computer vision) and OoD test cases used to support this activity? [YES/NO]

Inference Model Integration into AI/ML Constituent

- Has requirements-based verification of the inference model behavior when integrated into the AI/ML constituent been performed? **[YES/NO]**