

Secretary's note: The following is excerpted from an email submitted by the expert.

Topic 1:

I don't think there should be any limits to the ODD, internal or external. The regulatory body (and indeed FRAV) can determine what should apply or not in general terms. The manufacturer may have additional limits within this sandbox (or more granularity) based on their own designs.

Topic 2:

I think the objective is to define requirements that will increase the likelihood that the system is safe ie system safety. This would include different facets of the system (Design, op performance, sotif etc.) which would ultimately contribute to the overall system safety.

In terms of functions or features no real preference, we just need to define what we are talking about and make sure it aligns with English definitions (vs translated meanings).

For performance vs functional requirements, I would refer to the Nasa Systems engineering handbook (I have a paper copy but it is freely available -> https://www.nasa.gov/sites/default/files/atoms/files/nasa_systems_engineering_handbook_0.pdf I think it is Page 56 on the pdf)

Functional requirements define what functions need to be performed to accomplish the objectives.
Performance requirements define how well the system needs to perform the functions.

Topic 3:

I am not certain those classification would work. For example an ODD element/boundary may be that the detection system has a certain performance characteristic or level of accuracy. Looking at the above, splitting the functional and performance requirements but keeping them linked may be an answer? We are going to get in a lot of complexity for the various types of systems that could exist each with different performance/functional requirements. A possible solution could be to do like VMAD SG1a and just start identifying what is needed for a simple scenario (ie divided highway driving). It would become clearer how things interact or fit together, how they may be applied, help identify barriers and then allow us to go back to a "high-level" discussion as to how we can apply the method more broadly.