# ASAM OpenX standards for off-road applications

## Summary from the workshop on Mar 23, 2023

ASAM held a workshop in late February on applications of its OpenX standards for domains other than on-road driving. The goal of the workshop was to take a first step in bringing the different industries together, to better understand the respective use cases that they have, their pain points and the potential of the OpenX standards to address or begin addressing these.

The workshop began with some insights by participants into where they see overlaps between the current use cases of OpenX standards and those of other domains, as well as how these standards are already being used for such use cases. Yoav Hollander (Foretellix) gave some thoughts on the connection between off-road applications and ASAM OpenSCENARIO 2 and how it is already being used for mining applications. Dr Marcos Nieto (Vicomtech) presented off-road labelling use cases in different sectors such as agriculture, railway, surveillance, and others while stating that extensions of OpenLABEL v1.X may help to address sector-specific use cases. Then Dr Philipp Rosenberger (Persival) talked about ASAM OSI (Open Simulation Interface) and their usage for multiple domains. Further talks revolved around synthetic data for off-road vehicles, simulation-driven machine learning and challenges within the aerospace industry and a scenario-based approach in aerospace.

The group collected an initial set of use cases from their respective areas on a Miro Board(See screenshot from MIRO board below).
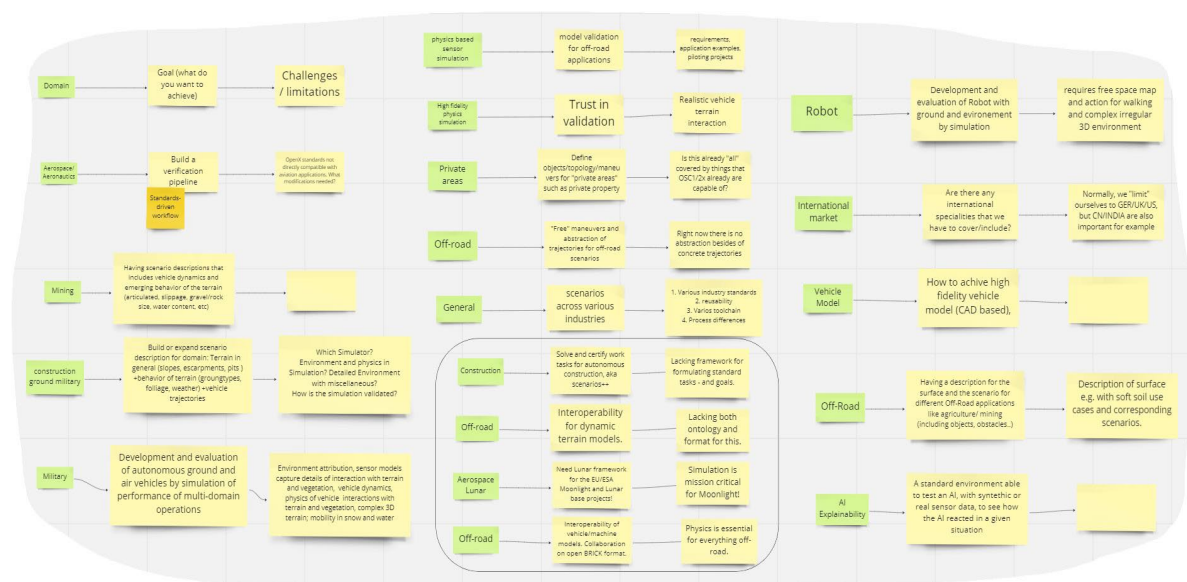
A series of reoccurring topics were also identified (see screenshot below).
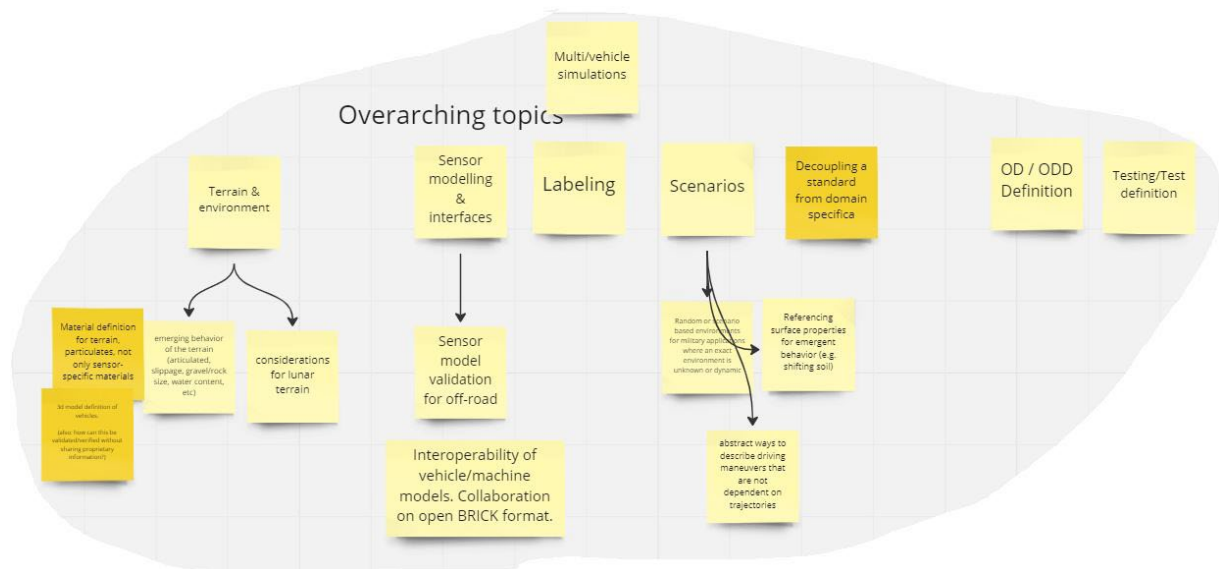
These topics included the definition and modelling of terrain for non-on-road applications, for example, particle-based or soft terrain or more detailed vegetation modelling. A strong theme was scenario descriptions for other applications that are not covered in the current OpenSCENARIO domain model, for example, the manipulation of servos in heavy machinery. Another topic collected was sensor modelling and packaging for off-road applications, with a particular focus on the modelling of sensor degradation. To investigate these items further, it was decided that a concept project under ASAM will be initiated. This concept project will target the aforementioned items through the development of a Proof of Concept (PoC). This PoC will demonstrate the application of the OpenX standards for one or more selected use cases. Gaps, where the standards are insufficient or do not address the domain-specific concepts will be conceptually represented.

To begin working towards the goal of initiating a concept project, a follow-up meeting will be set for March to discuss the process and additional boundary conditions. The date for this is still being set via separate communication with the participants of the workshop. If this follow-up is something you or your company would be interested in joining, please reach out to us!

The next workshop is foreseen for Mar 20, 2023 | 9:00 am – 11:00 CET

For more information, contact
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