Example of text (that can be used in the GTR) for describing the validation of a simulation method:

Extract from the 1958 Agreement, revision 3, Schedule 8:

“… 2. Fundamentals of computer simulation and calculation

2.1. Mathematical model

The mathematical model shall be supplied by the manufacturer. It shall reflect the complexity of the structure of the wheeled vehicles, equipment and parts to be tested in accordance with the requirements of the UN Regulations concerned and its boundary conditions.

The same provisions shall apply, mutatis mutandis, for testing components independent of the vehicle.

2.2. Validation process of the mathematical model

The mathematical model shall be validated in comparison with the actual test conditions.

To that effect, physical testing shall be conducted as appropriate for the purposes of comparing the results obtained when using the mathematical model with the results of a physical test. Comparability of the test results shall be proven. A validation report shall be drafted by the manufacturer or by the technical service and submitted to the approval authority.

Any change made to the mathematical model or to the software likely to invalidate the validation report shall result in a revision of the validation report be brought to the attention of the approval authority which may require a new validation process to be conducted.

2.3. Documentation

The data and auxiliary tools used for the simulation and calculation shall be made available by the manufacturer and be documented in a way suitable for the technical service. …”