

OICA comment on the TEMA model

- It is important for the industry to understand how durability is assessed by the model
 - Confidence that the model provides representative and fair estimates for the range of electrified vehicles and battery models on the market, now and future
 - Enable benchmarking against other models
 - Enable industry to support further development and improvements of the model
- JRC provided answers to the questions from OICA members
 - Replies did not offer much new information
 - TEMA is not originally designed for battery durability estimations
 - Refit of generic policy model leads to strange assumptions and trade-offs
 - Unclear which modules are active and internal flow of data during simulation
 - Non-intuitive assumptions made in the model and their effects on the accuracy and precision of model outputs are not explained, some examples
 - Internal battery temperature management
 - Relationship between internal and external temperature and effects on calendar ageing
 - Usage of the available electrical capacity in the battery (incl reserve)
 - Parameters used and parameterization is not explained, e.g.
 - Importance of physical dimensions and architecture of battery pack model effect is likely caused by embedded (invisible) parameters, e.g. related to thermal effects and specific loads experienced on cell level
 - Useage of available data
- EU COM/JRC have criticized industry the industry for not contributing data/supporting benchmarking
 - The lack of information about specific data format required by TEMA disables industry participation