EUHFORIA in the ESA Virtual Space Weather Modelling Centre

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The goal of the ESA project "Virtual Space Weather Modelling Centre - Part 3" (2019-2021) is to further develop the Virtual Space Weather Modelling Centre (VSWMC), building on the Part 2 prototype system and focusing on the interaction with the ESA SSA SWE system. A first, limited version went operational in May 2019 under the H-ESC umbrella on the ESA SSA SWE Portal. The objective and scopes of this new project include: the efficient integration of new models and new model couplings, including daily automated end-to-end (Sun to Earth) simulations, the further development and wider use of the coupling toolkit and front-end GUI, making the operational system more robust and user-friendly. The VSWMC-Part 3 project started on 1 October 2019.

EUHFORIA ('European heliospheric forecasting information asset') is integrated in the VSWMC and will be upgraded with alternative coronal models (Multi-VP and Wind-Predict) and flux-rope CME models, and new couplings will be made available, e.g. to more advanced magnetospheric models and radiation belt models, geo-effects models, and even SEP models. The first results will be discussed and put into perspective.