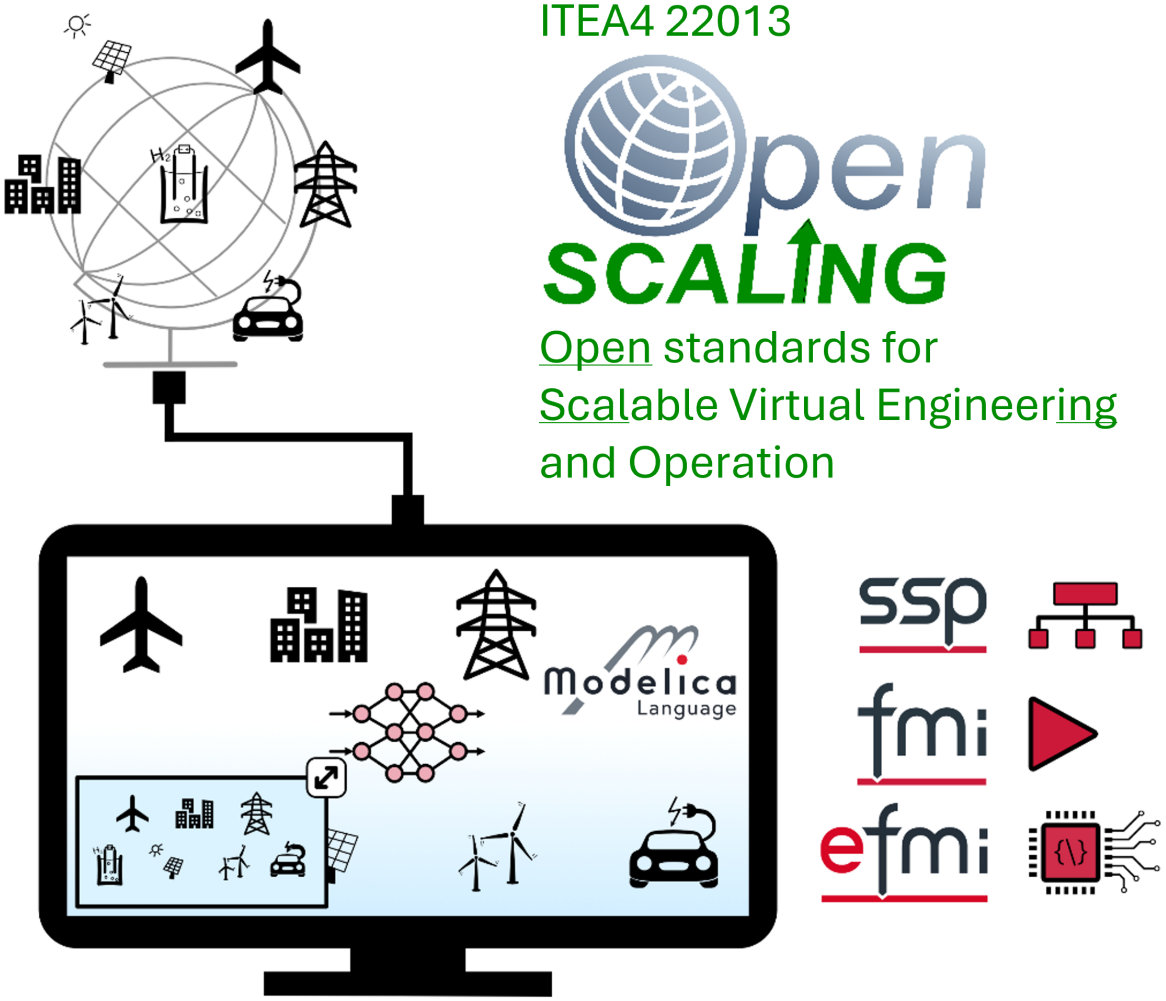

Deliverable D3.2

Benchmarks for Large Scale Systems

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Deliverable D3.2 *Benchmark models for Large Scale Systems* has been developed in the OpenSCALING ITEA4 project and is provided in form of a Gitlab repository, so you can easily install the benchmarks on your computer. They are licensed under the 2-Clause or 3-Clause BSD license. Document BenchmarkOverview provides a comprehensive summary of the benchmarks. A short overview is given here:

- Directory ABB_LSGreenH2Production
  Modelica benchmark models for green H2 production. The number of transformers, electrolysers and wind power plants can be defined via parameters.
- Directory DLR_BenchmarksForResizableArrays
  Modelica benchmark models with arrays to test that arrays can be resized after translation of the models (and before simulation starts or during simulation).
- Directory IDA_DistrictsBenchmark
  IDA Districts models translated to Modelica from 2 to 1004 customers simulated for 2 months. One goal is to have fast compilation (less than a second) which seems to be only reachable in this case with pre-compiled component models. The other goal is to have fast simulation.
- Directory Swegon_AcausalBenchmark
  Swegon models of HVAC components based on the Modelica Buildings Library that is intended to be used for testing acausal FMUs.
- Directory LTX_LargeInterfaces
  Modelica benchmark models with many inputs/outputs/local variables/parameters to test the treatment of large models with Modelica tools. Also a Python script is provided to convert the models to FMUs, in order to test FMUs with large interfaces.