CPO Statement of Modelon AB

Following the prerequisites of ProSTEP iViP's Code of PLM Openness (CPO) IT vendors shall determine and provide a list of their relevant products and the degree of fulfillment as a "CPO Statement" (cf. CPO Chapter 2.8).

This CPO Statement refers to:

Product Name	**FMI product portfolio: FMI Toolbox (for MATLAB®/Simulink®), FMI Add-In (for Microsoft® Excel®), FMI Library, PyFMI, JModelica.org, OPTIMICA Compiler Toolkit**
Product Version	**All versions of included products that have been released to this date**
Contact	**Maria Henningsson** **maria.henningsson@modelon.com**

This CPO Statement was created and published by Modelon AB in form of a self-assessment with regard to the CPO.

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Content

1 Executive Summary

The Modelon commercial products FMI Toolbox (for MATLAB®/Simulink®) and FMI Add-In (for Microsoft® Excel®) provide functionality to work with simulation models adhering to the open FMI standard in the tools MATLAB®/Simulink® and Microsoft® Excel®, respectively.

PyFMI is an open-source BSD-licensed Python package for FMI import. The products are built on top of FMI Library, which is an open-source BSD-licensed C library for low-level operations.

JModelica.org is an open-source Modelica platform, including a Modelica compiler that supports FMI import and export. OPTIMICA Compiler Toolkit is a commercial Modelica compiler for FMI export.

Open-standard solutions are core to the Modelon business. We strive for openness in the sense of the CPO statement throughout our own product line. Any limitations in openness that are inherent to the tool that is interfaced (e.g., MATLAB®/Simulink® or Microsoft® Excel®) are beyond the control of Modelon and therefore not covered by this statement.

Company Name:	Modelon AB	**Contact Person:**	Maria Henningsson
Product Name:	FMI Toolbox (for MATLAB®/Simulink®), FMI Add-In (for Microsoft® Excel®), FMI Library, PyFMI, JModelica.org, OPTIMICA Compiler Toolkit		

CPO Term	Fulfilled (100%)	Comments because of deviations
2.1 Interoperability	☒	
2.2 Infrastructure	☒	
2.3 Extensibility	☒	
2.4 Interfaces	☒	
2.5 Standards	☒	
2.6 Architecture	☒	
2.7 Partnership	☒	

List of inherent supported neutral standards	API: ☒C/C++ / ☐Java / ☒.NET / ☐Web Services / Others: Please provide, if desired 3D: ☐IGES / ☐JT / ☐STL / ☐STEP / ☐VRML / Others: Please provide, if desired DX: ☐eCl@ss / ☒FMI / ☐IDX / ☐PDF / ☐ReqIF / ☐STEP / ☐VEC Others: Please provide more or URL to product flyers, if desired Remarks: FMI 1.0 standard fully supported in listed FMI products. FMI 2.0 fully supported in FMI Library. FMI 2.0 partially supported in FMI Toolbox (for MATLAB®/Simulink®) by date, full support to be added in 2015.

2 Details of Self-Assessment

The following chapters summarize the results of the CPO-related self-assessment of Modelon AB with regard to FMI Toolbox (for MATLAB®/Simulink®), FMI Add-In for Microsoft® Excel®, FMI Library, PyFMI, JModelia.org and OPTIMICA Compiler Toolkit.

2.1 CPO Chapter 2.1: Interoperability

APIs have the following standard language bindings:

FMI Library: C and .NET

FMI Toolbox (for MATLAB®/Simulink®): ~~Matlab~~ MATLAB® scripting (vendor-specific standard)

FMI Add-In (for Excel®): Visual Basic for Applications (VBA) scripting (vendor-specific standard)

PyFMI, JModelica.org, OPTIMICA Compiler Toolkit: Python

2.2 CPO Chapter 2.2: Infrastructure

The FMI Toolbox (for MATLAB®) (version 2.0) is supported on Windows XP, Windows 7, Ubuntu 11.04 (Natty Narwhal) and Ubuntu 8.04 (Hardy Heron). See user's guide for further information

The FMI Add-In (for Excel®) is supported on Windows XP and Windows 7, 32- and 64-bit versions.

PyFMI, JModelica.org and OPTIMICA Compiler Toolkit are supported on Windows XP and Windows 7, 32 and 64 bit versions, as well as on Linux 32 and 64 bit systems

2.3 CPO Chapter 2.5: Standards

All Modelon FMI products support FMI import. FMI Toolbox (for MATLAB®/Simulink®), JModelica.org, and OPTIMICA Compiler Toolkit also support FMU export. All products rely on capabilities of the interfaced tool or scripting environment (MATLAB®/Simulink®, Microsoft® Excel®, or Python) for further data import and export.

2.4 CPO Chapter 2.6: Architecture

The IT system's architecture is conforming CPO 2.6 — Yes ☒ / No ☐

2.5 CPO Chapter 2.7: Partnership

2.5.1 Data Generated by Users

Data generated by IT users with an IT system is and remains the intellectual property of these IT users, according CPO 2.7.4 — Yes ☒ / No ☐

2.5.2 Partnership Models

Partnership models are offered according CPO 2.7.7 — Yes ☐ / No ☒

Modelon is a small organization, and partnerships in the sense of CPO 2.7.7 have not yet been formed for the FMI product line. A process for partnerships according to 2.7.7 may be added in the future.

2.5.3 Support of User and Innovation Groups

Modelon is an active member of the Modelica Association activities, including standardization work related to the Modelica language and the FMI standard.

2.6 Additional Information

CPO 2.3 Extensibility: This is not fully applicable to such simple software as an interface between a standard and a software tool. Applicable parts are fulfilled.