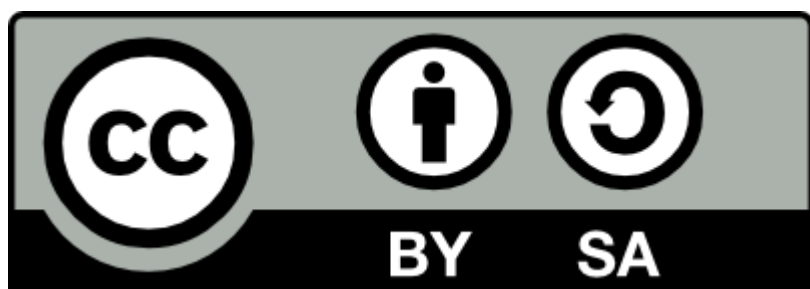




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# Bylaws of the **Modelica Association Project** *"Functional Mock-up Interface for embedded systems"*

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Version: 1, 2021-04-14

## Project purpose

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The main purpose of the project is the development, standardization and promotion of the *Functional Mock-up Interface for embedded systems* (eFMI). The intention of eFMI is to extend the scope of the *Functional Mock-up Interface* (FMI) from simulation towards embedded software development and validation. eFMI is an open standard enabling the application of (physics) models in embedded software by providing a container architecture for the step-wise refinement of a first high-level algorithmic solution to an embedded implementation on a dedicated target environment. eFMI tooling enables the automatic transformation of higher-level model representations, like a-causal equation systems, to causal solutions of such that are well suited for embedded system integration.

The **Modelica Association Project** (MAP) eFMI shall closely work together with other MAPs, like MAP FMI (**Functional Mock-up Interface**) or MAP LANG (Modelica Language), to coordinate the further development of **Modelica Association** standards.

## License of project results

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eFMI specifications are published under the CC BY-SA 4.0 (Creative Commons Attribution-ShareAlike 4.0 International Public License) license (or a follow-up version of this license); a human-readable summary of the license text as well as a link to the license text itself is available from <https://creativecommons.org/licenses/by-sa/4.0/>.

Source code or other data (like C-header, XML Schema or Modelica-library files) that accompany the specification documents are provided under the 3-Clause BSD license (or a follow-up version

of this license); the license text is available from <https://opensource.org/licenses/BSD-3-Clause>.

## Project rules

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The project rules are according to the bylaws of the Modelica Association. In particular:

### Project members

Membership in this project is open to companies, institutes, universities and other organizations, which agree to support the purpose of this project and follow the project rules. There is no individual membership for this project. An organizational member has to appoint an individual person affiliated to the organization to represent the organization in all matters related to this project. This person is the organization's liaison member.

All members:

1. Contribute to the design of eFMI, i.e., perform the technical work to design, implement and maintain the eFMI standard, its releases and promotion.
2. Have access to the internal infrastructure of the project (software repository and version-control system like [GitHub](#), mailing lists, meeting minutes, etc.).
3. Are organizations that actively support eFMI. For the matter of clarity: A member need not to be a member of the Modelica Association.

Further, project members are divided into two groups that have different rights:

#### 1. Group 1: Steering Committee

1. Members have voting rights (one vote for one organization, cf. **Voting** below).
2. Members define eFMI policy, strategy, feature roadmap and future eFMI releases.
3. Members elect a project leader and a deputy project leader for 2 years with qualified majority (cf. **Voting** below). The project leader must be an individual member of the Modelica Association, or must be the liaison member of an organizational member of the Modelica Association. Both, the project leader and the deputy project leader, have to be affiliated with an eFMI Steering Committee member. The deputy project leader supports the project leader and takes over the project leader's duties temporarily when the project leader is not available for a longer period.

#### 2. Group 2: Advisory Committee

1. Members that have no voting rights.

The Steering Committee and Advisory Committee are open for additional members; applicants must:

1. Have proved to actively support eFMI.
2. Have participated at least at two eFMI meetings (face to face or via electronic media) in the last 24 months.
3. Have signed the [Modelica Association Contributor License Agreement](#) (CLA, cf. **Development** below).
4. Be accepted as new members (cf. **Voting** below).
5. In case of Steering Committee applications: Have either provided implementation(s) of the eFMI standard or part of it in a commercial or open source tool, and/or must actively use eFMI in industrial application(s) (this includes research/academic organizations that are working with industrial partners to apply the eFMI standard on industrial applications).

Instances to reject an application are, for example, if (1) the backing organization of an applicant is not clear or subject to international disputes or (2) an applicant is controlled by an organization that is member of the Steering Committee and the two organizations have similar interests. The Steering Committee is encouraged to exercise (1) and (2) on a case-by-case basis.

Expelling members is at the discretion of the Steering Committee (cf. **Voting** below); the respective members are excluded from the quorum for this decision. Instances to expel a member are, for example, (1) members that have not participated in meetings, have not contributed to the project for more than two years and did not react on a four weeks prior notice, or (2) organizational mergers of two or more members resulting in all but one to be expelled. The Steering Committee is encouraged to regularly exercise (1) to ensure decision-making ability and organizational liveliness and (2) on a case-by-case basis.

## Visitors

Organizations and individuals that contribute to the project (cf. **Development** below), but are not project members, are called "Visitors". Visitors have no right to access the internal infrastructure of the project (software repository and version-control system like [GitHub](#), mailing lists, meeting minutes, etc.) except if they are project partners (cf. **Project partners** below).

## Project partners

To foster collaboration with the Modelica Association and its Modelica Association Projects (MAPs), the Steering Committee can, on a case-by-case basis (cf. **Voting** below), grant access to parts of the internal infrastructure of the project (software repository and version-control system like [GitHub](#), mailing lists, meeting minutes, etc.) to Modelica Association members and/or MAPs,

given they/their individual members are eligible project membership-candidates (cf. **Project members** above), i.e.:

1. In case of Modelica Association members: Must be organizations that have signed the [Modelica Association Contributor License Agreement](#) (CLA, cf. **Development** below).
2. In case of MAPs: Must only have, and accept, organizations as members that have signed the [Modelica Association Contributor License Agreement](#) (CLA, cf. **Development** below).

Organizations and MAPs given access to the internal infrastructure of the project are called project partners.

To withdraw the access rights of project partners at any time, without prior notice, is at the discretion of the Steering Committee (cf. **Voting** below). Project partners forfeit their access rights immediately, without further notice, if they do not satisfy above requirements any longer, in which case they must inform the Steering Committee of their changed status.

## Voting

Voting is performed by the Steering Committee members according to §14 of the bylaws of the Modelica Association but with a quorum of 66 % of the Steering Committee members. If explicitly decided by the Steering Committee members, and in case of electronic Steering Committee meetings, every voting can be performed electronically according to §14 of the bylaws of the Modelica Association.

New releases of the eFMI specification and accompanying source code or other data (like C-header, XML Schema or Modelica-library files) shall be approved by the Steering Committee members with a qualified majority of the number of votes submitted.

## Meetings

eFMI meetings are announced via electronic communication channels all members have access to (the internal infrastructure of the project, for example, via [GitHub](#) Wiki and/or mailing lists). Steering Committee meetings must be announced at least 3 weeks in advance.

The Steering Committee decides whether a Steering Committee meeting is public or not; the default is private to ensure an efficient procedure. Other meetings can be open to the public if all member participants agree ahead of the meeting. The meeting material (minutes, documents, presentations etc.) is available on the internal infrastructure of the project. A publication of this material needs approval of all participants.

## Development

The development of eFMI is organized according to the development process defined by the Steering Committee. All organizations that contribute to an eFMI specification and/or related works have to sign the [Modelica Association Contributor License Agreement](https://www.modelica.org/licenses/) (cf. <https://www.modelica.org/licenses/>) by a responsible representative of the organization they are affiliated with.

## Publication

Approved eFMI specifications (cf. **Voting** above) are published by the Modelica Association after confirmation by its members according to §14 of the bylaws of the Modelica Association.