

CASE STUDY: Ecma-international

Draft 2009-05-05 (Mattias Ganslandt, Jonas Andreasson and Martin Sutinen)

Work in progress, comments most welcome!

Basic facts about Ecma-international

Webpage

<http://www.ecma-international.org/>

Organization tagline

Ecma is a vendor led organization developing ICT standards

Main standardization areas

General ICT with a focus on computer industry

Best known standards

[EcmaScript](#) (Javascript), [CD-ROM](#), [OOXML](#)

Classification

Non-formal, European, general interest organization that specializes in fast-tracking to international standardization organizations.

Does the SSO have any explicit or implicit policy relating to interoperability?

Ecma does not take any stance for facilitating interoperability. Interoperability can be a specific part of a standard, one example is the OOXML standard.

Is there an explicit strategy to facilitate or contribute to interoperability?

Ecma does not take any stance for facilitating interoperability.

Procedures for testing of a proposed/developed standard with respect to interoperability and backward compatibility?

Ecma does not have any set procedures for interoperability or backwards compatibility.

What are the procedures (internal or external) for implementation?

Ecma does not provide any particular support for implementation.

How is compliance enforced and what are the consequences of defections and deviations from the standard?

Ecma does not enforce developed standard compliance.

Did the SSO develop competing standards for the same or similar type of technical problem?

OOXML is a direct competitor to [ODE](#), developed by [OASIS](#).

What is the value of interoperability in the specific area in which the SSO is active?
As seen from OOXML/ODF there are translators available between the two standards. Considering that most Ecma are of higher hierarchy the need for interoperability is lessened.

What is the value of selection and conformity in the specific area in which the SSO is active?
Selection is of lesser importance for many Ecma standards since the costs of competing standards are lower than for baseline standards.

Standardization Process

- European association for standardizing information and communication systems (Ecma-international) has been active in ICT standardization since 1961 and has 75 members.
- The standardization efforts of Ecma covers ICT in general and Ecma have produced 400 standards.
- Any organization is welcome as a member but membership is conditional on approval by two thirds majority in the General Assembly.
- There are five membership classes, four for companies and one for not-for-profit organizations. Fees are dependent on the organizations turnover and voting rights and ranges up to 56 000 USD. NFP membership is free of charge. Top tier membership requires the approval of other top tier members.
- All members are allowed to participate in Technical Committees but the smallest companies may only participate in one Committee. Non-member experts might be invited to participate in the development of new standards. Only the top tier members have voting rights. Approvals of standards are officially taken by the General Assembly and requires two thirds majority. Decisions might be appealed on technical grounds although the circumstances concerning this are not clear.
- Only official standards are required to be publicly available free of charge. Working material is recommended to be made public for public comments. The votes of members are not public.
- To begin a new standardization process there has to be support from at least three members.

Improvement activities

- Ecma recently opened access free of charge to their historical archives of standards and technical reports to the public online.
- There is no official scope for public review of standards but the public can comment on official standards which might affect future revisions.
- Ecma provides fast-tracking of standards to international standard organizations.
- Ecma's purpose is to produce general interest standards and technical reports within the ICT area and publish them publicly free of charge.
- Ecma produces standards within the same scope as [CEN](#), [ETSI](#), [ISO](#), [ITU](#), OASIS and [W3C](#) and cooperates with CEN, ETSI, [ICTSB](#), ISO and ITU. Formal liaisons exist with CEN, ETSI, ISO and ITU.

Interoperability

- The IPR policy allows for IPR licensed under RF or RAND terms. Failure to acquire RAND terms result in cancellation of a standard.
- Members are required to disclose any own and known essential third party claims prior to balloting in the General Assembly. For pending patent applications of Ecma members, continued work and affirmative votes on behalf of the member is considered to imply that these patents will be made available under RAND conditions at a later stage.
- Ecma does not perform any activities related to implementation of their standards and does not support testing, validation or certification of standards since this is considered outside the scope of Ecma.
- Ecma does not take any specific stance as to how standards are supposed to relate to interoperability.

Case study

Ecma International (Ecma) is a not-for-profit standards developing organization which was founded in 1961 under the name of European Computer Manufacturers Association. In 1994 the name was changed to reflect the international focus of the organization. The ambition of the organization is to, in cooperation with other organizations, develop open standards and technical reports for information and communications technology (ICT) and consumer electronics (CE) within a wide range of areas. The purpose of this is to meet industry needs by generating a market situation where competition takes place in the differentiation of products and services rather than on the level of technology itself.

Ecma is organized in a General Assembly and a number of Technical Committees. Membership is open for any organization but requires the approval of at least two thirds of the current members of the general assembly. Five different levels of membership exist. Four of them are for companies, where the annual fee for the highest level is approximately 56 000 USD. The fifth level is for non-profit organizations and is free of charge. All members have the right to participate and vote in the technical committees, however, only the highest level of membership grants the right to vote in the general assembly.

The development of a standard begins with a proposition which has the support of at least three members. If accepted by a simple majority vote in the appropriate technical committee or by the general assembly in a case where a new committee needs to be created, a working group is appointed with the task to produce a standard draft. The working group may possibly also include external experts who are not Ecma members. Once completed, the draft is reviewed by the technical committee responsible for the standard draft. Once the committee is satisfied with the draft it is sent to the general assembly. Again a simple majority is needed for such approval in the committee but such ballots are unusual since a consensus is expected to have been reached. Twice a year ballots are held in the general assembly to decide whether drafts are to be approved as Ecma standards, and this time a two thirds majority is needed for approval. Members however has the right to appeal for a draft to be sent to the

general assembly even without approval in the committee, which is worth noting since only the highest level of membership grants the right to vote in the general assembly.

Ecma is committed to support the standards until they are removed due to a lack of usage. No tests or certifications of products are offered by Ecma since it is considered to be outside the scope of the organization.

Approved standard documents are made publicly available under royalty-free terms by Ecma, with the right to freely use and copy the material. However, working papers and meeting minutes are usually only made available for members even though the technical committees are encouraged to make documentation public to make it possible for outside interest groups to comment on ongoing work.

Issues regarding possible essential third party IPR claims related to standards are governed by the Ecma IPR policy, which requires members to disclose any such patent claims before a ballot for approval of a standard is conducted in the general assembly. For a standard to be approved it is required that such patent holders offer licenses on Reasonable And Non-Discriminatory terms.

Ecma is working intensely to have the Ecma standards quickly adopted by other standard setting organizations such as ISO by so called fast-tracking. In total, Ecma has published over 480 standards and almost 40 percent of them have been adopted by ISO/IEC. One example of such a standard is ISO 9660, which is the compact disc file system for CD-ROM media and which was adopted in 1988. A more recent example is ISO 29500, the Office Open XML standard for electronic document developed by [Microsoft](#), which was first adopted by Ecma in 2006 and later adopted as a revised version by ISO in 2008.

The total number of members in Ecma is 47 companies and 28 not-for-profit organizations. Two these members are Swedish, one organization and [Ericsson](#). Ericsson is also one of the 20 companies which have memberships of the highest level and hence have the right to vote in the general assembly.

Key success factors

- By only giving decisive rights to the top tier of members Ecma guarantees a large influence for dedicated members
- A smaller organization can be more flexible and better able to quickly adapt to market demands. Ecma therefore have an advantage in producing new standards based on technological progress than several of the more cumbersome organizations.
- Ecma offers a possibility to create standards which are subsequently submitted to international standardization organizations. As such Ecma allow for a greater influence and a faster process while still allowing for an international ratification and adoption of standards.
- Since only companies are allowed to vote for approval of standards Ecma gives the industry a large say in the development of standards. This makes Ecma a preferred organization for companies.