Business models for Open Source software

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To define a business model

- the actors should be identified
  - their role
  - their expectations
  - their degrees of freedom

- the exchanges should be quantified
  - overall and long term fees (license and services)
  - return on investment
Business model of last century

Software vendor
marketing
imposed development timing

Commercial software

Academic team
Research – Teaching

Exchanges university - industry
difficulties for capitalizing

Industrial organizations
R&D team
operational team or subsidiary

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Jean-Raymond Lévesque
21st Century : Open Source Software

- a durable model for exchange and capitalization of the innovation
- a model with freedom
  - to contribute and invest according to scientific, technical interests, specific needs
  - to implement more rapidly technological leaps
  - to build its own distribution network and sharing relationship
- proprietary technology =
  - offering limited insight or black-box approach
  - exchanges and sharing out reduced to commercial aspects
  - code development driven primarily by vendor’s interest
- but fences for companies wishing to adopt open source software
  - a global ignorance of the open-source model : initial cost for newcomers / use of habits for commercial software
    "if everyone uses it, it must be good"  “paying = quality : common shortcut”
  - mistrust in the reliability of support offers
  - companies have legitimate doubts about the longevity of OSS products
Computer science at EDF R&D

- Involvement in computational mechanics for:
  - Operating decades lifetime assets
  - Simulating complex systems and physical phenomenon
- Simulation and related software are a key tool for safety studies, operating issues and optimization of systems performance
- Third party should be able to assess the quality of software: the OSS model contributes to the policy of transparency of the EDF group
- EDF R&D is not called to play a software vendor role

*Code_Aster and Salome have chosen the Open Source model since 2001*
the EDF R&D choice

EDF - R&D
and development partners

Service providers
... and distributors

Open source software

Academic team
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Exchanges university – industry
framework for capitalizing

Shared funding of thesis

Human resources

qualification by third party

collaborative developments

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for EDF R&D

- main commitment is to EDF Group users
- reputation for the quality and the performance of EDF’s software products
- feedbacks from the community: judgments by peers, extension of usages, feedbacks on the quality of Code_Aster Open source
- opportunities for new collaborative-development and partnerships
- create an impulse in the community and attract young engineers who see in our company and our partners a more modern and free vision of computer science technology
- to encourage more efficient service suppliers for the extension of the distribution and the benefits of every user
for industrial organisations

Free software = Free of licensing fees + Freedom of use

- to contribute and to invest according to scientific and technical interests: replace licensing fees by development of expertise and specific funding
- to capitalize works of R&D: development in a network of skills
- full control of one’s IT tools
- easier for evaluation of new technology
- license fees of proprietary software often increase with number of users and parallelism!
- to add (or pay for) specific features: you pay what you need
- Free choice of technology provider (no subjection to vendors or authors)
for academic teams

- framework for capitalizing their research works
- self-sufficiency from vendors
- leverage of action for transfers from university to industry
- opportunities for education: labwork with test cases, theoretical documentation ...

for service providers

- authorization to duplicate, modify and redistribute
- to create business opportunities ... with an initial investment
- insurance for technological leaps emergence
- opportunities of evolving to a vendor role
Code_Aster Open Source : 10 years

A well established community

- 2000 downloads worldwide for regularly updates
- 600 members participating to a very active forum for mutual aid
- distributors and service providers in several countries
  ... and, this summer, complete documentation available in English

... but anonymous downloads and public forum hamper several goals

- to encourage organizations to communicate on their commitment
- to support the multilateral exchanges and to create partnership opportunities
- to stand out common needs and encourage the B2B service offering
Code_Aster Professional Network

Today’s announcement
Aim : to ensure mutual sharing from the members
(win-win relationship)

- teams of industrial organizations + academic teams + service providers

- to create multilateral exchanges of better quality
- to increase the visibility of the members on the various usages
- to spread privileged information given by the development partners
- to gather common requests to service providers
- to increase the opportunities of collaborative developments

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Prospects

Which economic model for this organization:

- Software authors who do not want to endorse a vendor role?
- Industrials looking for cost saving of licenses?
- Services suppliers who would like to extend their business?

More than a simple cost saving of licenses, the Open Source model permits a greater control of one’s solutions.

This control requires manpower investments for newcomers. But it has a moderated global cost thanks to sharing and exchanges between all actors.

The OS model and its display at EDF R&D are an ongoing story.