Business models for Open Source software

Jean – Raymond Lévesque
Code_Aster ProNet representative
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

Discounted license fees

On-demand development

Some contracts

Jean-Raymond Lévesque
July 7 2011
21\textsuperscript{st} 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 \textit{black-box approach}
  - exchanges and sharing out reduced to \textit{commercial aspects}
  - code development driven primarily by \textit{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
    - "\textit{if everyone uses it, it must be good}"  "\textit{paying = quality : common shortcut}"
  - mistrust in the reliability of support offers
  - companies have legitimate doubts about the \textit{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 transparancy 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

Academic team
Research – Teaching

Open source software

Exchanges university – industry framework for capitalizing

Industrial organizations
R&D team
operational team or subsidiary

Service providers
... and distributors

Shared funding of thesis
Human resources
Collaborative developments
Qualification by third party

July 7 2011
Jean-Raymond Lévesque
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**
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