



RNTL: 4 years after

Conclusions from its "livre blanc"

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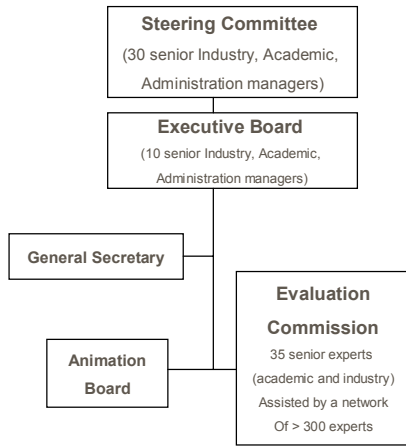
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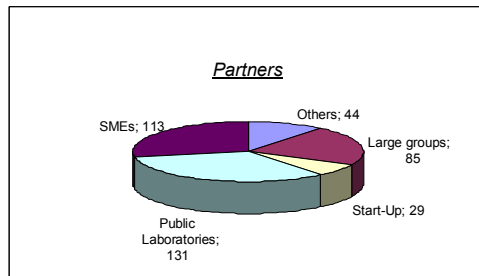
Objectives

- ⌘ **Launched in early 2000**
- ⌘ **Objectives**
 - ☒ Aiming at creation and development of software enterprises, on the basis of competence and technology stemming from academic community
 - ☒ Increasing french competitiveness in software industry
- ⌘ **Fostering Academic / Industry cooperation in the software domain**
- ⌘ **Budget (since 2000)**
 - ☒ Total cost of projects : 330 M€
 - ☒ Total funding : 111 M€

RNTL Structure



⌘ The network



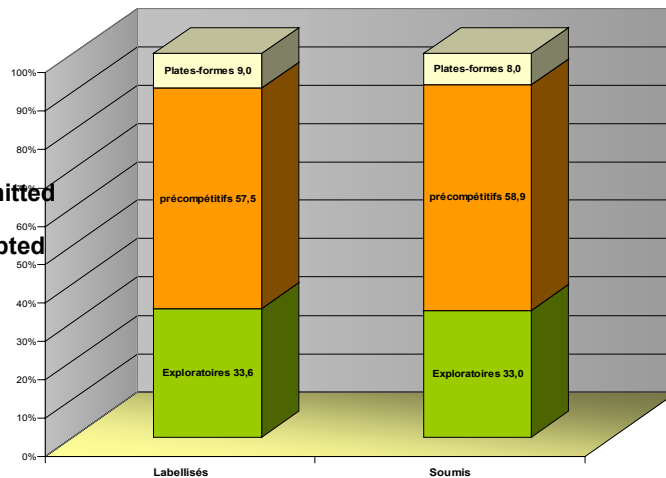
☒ 5 Calls for Projects

☒ Projects

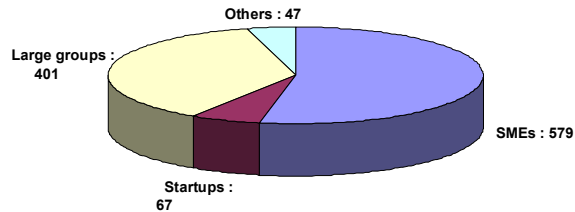
- ☒ Submitted : 474
- ☒ Accepted : 139 (30%)
- ☒ Completed : ~50

Submission and accepted projects

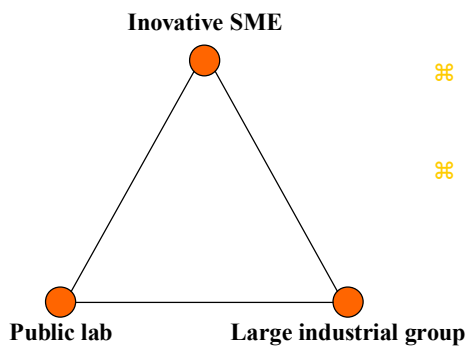
405 projects submitted
134 projects accepted



Submissions from industry

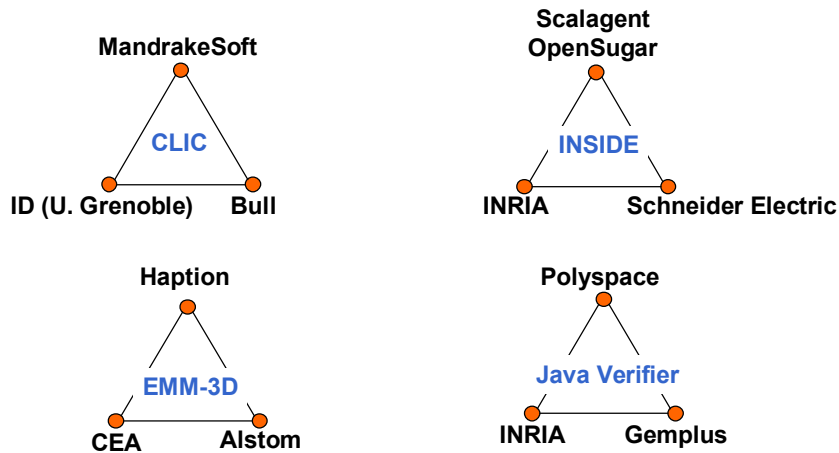


Typical structure of an RNTL project



- ⌘ Public lab brings knowledge and/or technology
- ⌘ Innovative SME creates a new product or a new product feature
- ⌘ Large group brings requirements, conducts experiments, evaluates the project output, and becomes a first reference for the SME

Some examples



A few start-ups supported by RNTL

- ⌘ Jalios
- ⌘ Scalagent
- ⌘ Haption
- ⌘ Trusted-Logic
- ⌘ Esterel Technologies
- ⌘ Primal cry
- ⌘ Xylème
- ⌘ Kelua
- ⌘ Ucopia
- ⌘ Alinka
- ⌘ StorAgency
- ⌘ Kelua
- ⌘ Kineo
- ⌘ Simedje
- ⌘ Delta partners
- ⌘ WebGalaxis
- ⌘ Simteam
- ⌘ Amesim
- ⌘ Oktal SE
- ⌘ AsAnAngel
- ⌘ Etc.

Platforms: Capability to structure a community

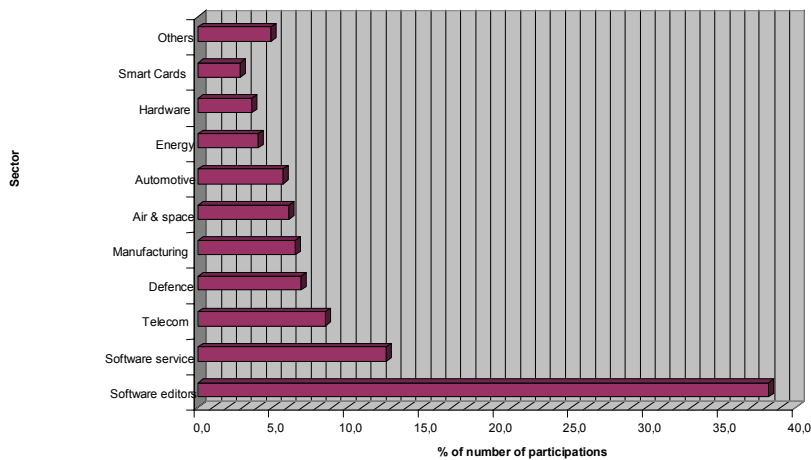
⌘ Perf-RV Virtual Reality French platform



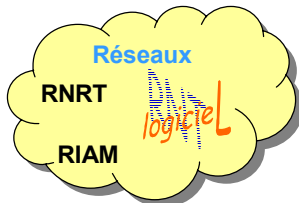
⌘ Salome Platform dedicated to numerical simulation



Industrial sectors in RNTL projects



France



Specific programmes

Oppidum : Security
Technolanguage
Information Society

Europe



Roadmapping: Thematic Domains and Markets

- ⌘ **No roadmapping per se**
 - ☒ Effort too important
 - ☒ *We contribute to, and we use ITEA's roadmap*
- ⌘ **Design of embedded, critical and real-time software (35 projects)**
 - ☒ Kind of « new informatics », where game is still open, and where Europe can take its share
- ⌘ **Extending cooperative or individual information systems through the Internet (40 projects)**
 - ☒ Still the bulk of the market
 - ☒ Possible to come back in some areas (e.g. Middleware = *ObjectWeb*)
- ⌘ **New Person – System – Environment Interface (33 projects)**
 - ☒ No digital system can ignore CHI
 - ☒ Specific strong research-industry cooperative action in VR
- ⌘ **New design for new object (CAD+Simulation) (31 projects)**
 - ☒ Strong position of french software actors (Dassault Systems + SMEs)
 - ☒ Strong position of manufacturing industry (automotive, avionics, ...)

The process

- ⌘ **Mainly aims at organizing calls for proposals**
- ⌘ **Thematic domains are defined with respect to markets, not technology**
 - ☒ Software engineering was a « 0th » thematic domain per se, but was removed in 2002
- ⌘ **Contributors and actions**
 - ☒ Before each call, about 100 experts are met to add/remove items to the thematic definition of the call for proposal
 - ☒ The evaluation commission meets for a one-day workshop on new orientations
 - ☒ The executive committee also has a one day workshop (in August)
 - ☒ Also: platforms (see later)
- ⌘ **Mainly aims at being up-to-date with respect to technology and market**

The role of platforms for roadmapping

- ⌘ **Platforms produce roadmapping for their domain**
 - ☒ They bring together (almost) all actors
 - ☒ They have a close industrial vision
- | | |
|--------------------|---|
| ⌘ PERF-RV | <i>Virtual Reality</i> |
| ⌘ SALOME, SALOME2 | <i>Numerical simulation testbed</i> |
| ⌘ e-cots | <i>A portal for cots information</i> |
| ⌘ MAGIE | <i>Collaborative work</i> |
| ⌘ IMPACT/ObjectWeb | <i>Middleware</i> |
| ⌘ e-toile | <i>Grid</i> |
| ⌘ Outilex | <i>Natural language</i> |
| ⌘ Libre Source | <i>« Source Forge » like</i> |
| ⌘ CLIC | <i>Clustering</i> |
| ⌘ MUTSIC | <i>Non Destructive Testing</i> |
| ⌘ OpenPlast | <i>Simulation from first principles</i> |

Some final thoughts

⌘ What?

- ☒ A roadmap should be a *model* of the future *shared by actors*
 - ☒ It's certainly possible to predict when and how some technology is going to be included in products on the market (esp. for embedded systems!)
 - ☒ Recognizing the key drivers for change, technology and economy
 - ☒ « Playing » the model
 - ☒ Consolidating the vision for the future with today's existing technology and actors
 - ☒ *Quantifying objectives: grand challenges, platform/prototype performance*
 - ☒ *Performance – Technology readiness*

⌘ How?

- ☒ Methodology
- ☒ Obviously experts, senior experts, committees, ...
- ☒ Part of it could be left to some existing community