Lessons learned after some years of proposals (and projects)

Luciano Baresi
Politecnico di Milano
Dipartimento di Elettronica e Informazione
Who I am

...• MOMOCS (STREP, FP6)
• SLA@SOI (IP, FP7)
• MADEs (STREP, FP7)
• SeCSE (IP, FP6)
• SMSCOM (ERC)
• Cascadas (IP, FP6)
• S-Cube (NoE, FP7)

...• Discorso (FAR)
• EasyLog (FAR)
• ArteDecò (FIRB)
• D-Asap (PRIN)
Disclaimer
What makes a good proposal

- Scientific and/or technological excellence
- Quality and efficiency of the implementation and the management
- Potential impact through the development, dissemination and use of project results
Competition and participants

• Competition is becoming tougher and tougher
  – More EU members
  – Economic crisis

• Proposals must be clearly focused on the objective
  – The selling point must be appealing
  – Read the objective very carefully (and try to be creative and innovative)
Many opportunities

• Objectives are not all crowded the same way
  – Objective 1.2 vs others
  – Less participants mean higher success rates
• Objective 1.2 is not the only option
  – Other objectives
  – Other opportunities: ESF, ERC, Artemis, ITEA

• Future and emerging technologies
  – Dedicated calls
  – Open calls
Good consortium

- Good balance of
  - Nationalities
  - Research institutions, software vendors, and demonstrators
  - Domain experts and problem solvers
- No outsiders
  - Key players usually make the difference
  - Deep knowledge of the field/problem
- Limited number of partners
  - Small is better than too big
Good technical goals

• Limited number of well-focused and precise goals
  – Generic and holistic statements do not pay off
• Achievable within the proposed time frame
  – Too visionary objectives are good only in some cases
• Probably the reviewers will not be experts
  – Describe goals in such a way reviewers can understand them
  – Avoid too many technicalities
  – Try to identify the “business value” of proposed objectives
Research institutions

• A few clearly-shaped contributions
  – Never promise you can do everything
  – Quality research, decent prototype tools, and good publications

• Scattered effort is not convenient

• Only be marginally involved in other activities
  – Project management
  – Exploitation
  – Industry-related dissemination
Good management

• Managing these projects is not easy
  – Actual power is limited, but responsibility is shared
• Distinction between administrative and technical management
  – A single person is not usually good at both
  – Technical manager must define, oversee, and enforce the research directions
• Conceivable effort and experience are needed
  – Positive attitude and real control are mandatory
  – Integration is usually a key issue
Prime contractor

• Very complex role
  – First responsible for everything, but also “limited” visibility
  – “Obscure” activities require deep knowledge and professionalism
• Dedicated organization
  – This is why many research groups are not properly equipped
  – PhD students are not good surrogates
Business model

- Potential impact of project results
- Never too much, but realistic and credible objectives
- A clearly defined business model
  - How to make money
  - Real commitment of industrial partners
- Open-source is not the only solution
  - Usual licensed software products
  - Software for free, and paid consulting
Tools

• Big misunderstanding
  – No time and effort for product-like tools
  – Too many single integrated/monolithic frameworks
• Developed software should
  – Help play with ideas
  – Act as proof-of-concept
  – Be good and reliable enough
• Software releases
  – Usually too many
As Reviewer

• Deliverables are
  – Usually too many, too long, and unfocused
  – Many parts are boring and useless
• Presenters tend to exaggerate
• Demos
  – Help waste time
  – Should be better engineered and faster
• Management
  – Usually late
  – Not detailed and precise as it should
Conclusions

• Some trivial and well-known suggestions

• Industry vs. research
  – Room and time for pure research
  – Better distinction
  – More focused, and accessible, programs

• Shorter proposals
  – Longer projects