

Funding Boost development through national and international research programs

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Boost fills an important role

- Open Source project
 - A voluntary effort of individuals, but with a clear governance structure and rules
 - Provided under a very free license suitable for all practical purposes
 - With an active and dedicated community
- A breeding ground for new technology
 - C++11
 - Boldy goes, where noone ever went before
- High quality
 - Tested and peer reviewed
 - Portable
- Used in production in industry and science
 - Proven track-record
 - Last anchor to C++ for some
- **Underrated!**

Boost needs

- More volunteers
 - Long delays before a review
 - Slow review process
 - Backlog of bugs
 - Sometime poorly documented libraries
 - Unmaintained libraries
 - Little redundancy in case library authors get run over by a truck
- More users
 - From science
 - From industry
- More recognition of Boosts role
 - More publicly described use-cases
 - Active dissemination and outreach
 - Training, education
- A larger ecosystem of companies earning money with Boost
- Funds

Industry, Science and Education wants

- All: „No strings attached“ software components for practically any purpose
- All: Projects to fund their employees
- Industry: To concentrate on their core expertise
 - Coopetition: Competition + Cooperation
- Science: Real-world examples and projects
 - PhD project: „Create library X to perform task Y

Suggestion

- To explore and use national and international research funding
 - Goal: An international consortium of research projects for the creation of high-quality, maintained and documented software building blocks, ready to be used in larger projects in all areas of our society
 - Has a far more direct impact than many of the „usual“ research programs
- To perform a coordinated, international effort to gain such funding
 - Jointly identify opportunities
 - form consortia
 - create Boost peer-reviewed applications
 - Apply to several programs at once
 - Leverage contacts of Boost community to funding authorities, where they exist
 - Higher international visibility through coordinated effort might increase chances of success

Effects

- Will allow users to focus on their core expertise
 - „Just check Boost“ for the building blocks
- Will help Boost with
 - Recognition
 - Boost may become a standard part of teaching and curricula at academic institutions
 - Funding for new developments, maintenance of older libraries
 - New volunteers from the science community, even after a funding opportunity has ended
 - Redundance, avoid unmaintained libraries
- Will help Boost authors
 - To focus more on design issues and integration
 - To treat Boost development as a profession (if this doesn't happen already)

Questions

- Does this fit into Boost's structures and procedures ?
 - Additional personnel can work on
 - Creating new libraries and improving existing libraries
 - Documentation
 - Testing and Bug-Squashing
 - Deployment
 - Dissemination and Outreach
 - Legal
 - But:
 - Might need a „Boost of two velocities“
 - There will be „wild“ projects
 - So far single-tiered process: A library is either accepted or rejected
 - Library authors might loose some control
 - Might need stricter governance and more rules

Questions

- I have assumed a European + German perspective
 - Does research funding work similarly in other areas ?
- Who decides what projects are started ?
 - There'd have to be some sort of a panel or board of governance
- Does this have to be limited to C++ ?
 - Could cover a far wider scope
 - We already have interfaces to Python
- Do further funding routes exist
 - „The Boost foundation“
 - E.g.: Ask for contributions from industry to fund particular projects
- Are there questions I haven't asked ?
- Who is interested ?
 - Talk to me: ruediger.berlich@kit.edu

This is a brainstorming session
- Your input is needed -