

# 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](mailto:ruediger.berlich@kit.edu)

This is a brainstorming session  
- Your input is needed -