Plasma wakefield acceleration of highly relativistic electrons with FLASH

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Information exchange, reporting and future VI meetings

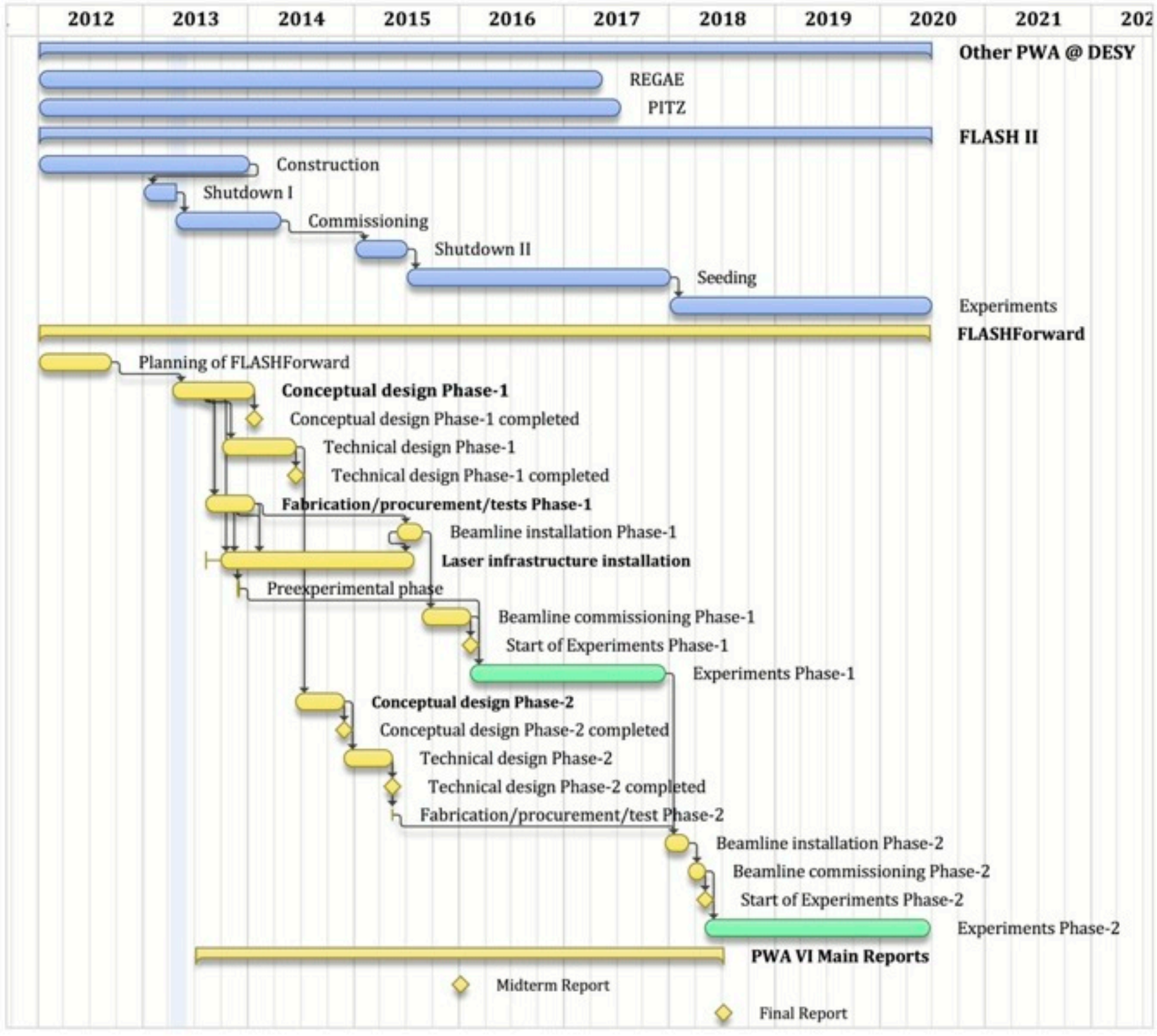
VI-Meeting, Sep 30, 2013, Hamburg

Helmholtz Virtual Institute for PWFA

- VH-VI-503: Plasma wakefield acceleration of highly relativistic electrons with FLASH
  - Start: July 1, 2013
  - End: June 30, 2018
- We had the kick-off meeting a year ago at SLAC Oct 8, 2012
  - and associated with new partners at the time (UCLA and INFN)

Timelines at the time of application

up-to-date details of the scientific programme in Jens' talk



Requirements

- Helmholtz VI has to document and report on achievements
  - Annual reports to Helmholtz
  - Tracking of (some) activities inside the VI
  - Web-page specific to the Virtual Institute
    - http://vi-pwfa.desy.de

Most activities will be documented on the specific project web-space

VI-PWFA
Virtuelles Institut PWFA

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PLASMA WAKEFIELD ACCELERATION
PROJECT PARTNERS
PROJECT ADMINISTRATION
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Plasma wakefield acceleration of highly relativistic electrons with FLASH

The Helmholtz Virtual Institute (VI) on plasma wakefield acceleration of highly relativistic electrons will bring together leading accelerator centres in Germany and worldwide to address topics at the forefront of accelerator research. The VI will enhance the prospects of the field of plasma-based acceleration by building on the initial steps that have been taken recently in establishing it as a comprehensive research topic in Hamburg. The VI is very timely to build on the award to Foster of an Alexander von Humboldt Professorship at DESY and the University of Hamburg in summer 2011. A significant fraction of the resources of the Humboldt chair will be devoted to research areas contributing directly to the VI, which will bring together many of the world's leading laboratories in the area of laser-plasma acceleration. The programme of the VI will benefit from unique facilities at the partner labs, particularly DESY but also LBNL and SLAC, to make significant progress in the task of accelerating bunches of particles with good beam quality to high energies. The understanding of the basic mechanisms via a number of key targeted experiments involving high-quality beams using state-of-the-art diagnostic techniques and high-precision timing forms the core of the VI's programme. Exploiting our expertise on simulation of the basic processes will also form a key part of the VI's activities. The additional expertise on lasers at the University of Hamburg rounds off the capabilities which are centred on the unique and sophisticated electron accelerators and Free Electron Lasers at DESY.
Coordinating Helmholtz-Centre Deutsches Elektronen-Synchrotron (DESY)

Initial version of web-page

Reminder of the programme

- Primary interest of the funding is to carry out research with Helmholtz institutes

  - Funding available for German partners
    (in our case Hamburg University, but not MPI)

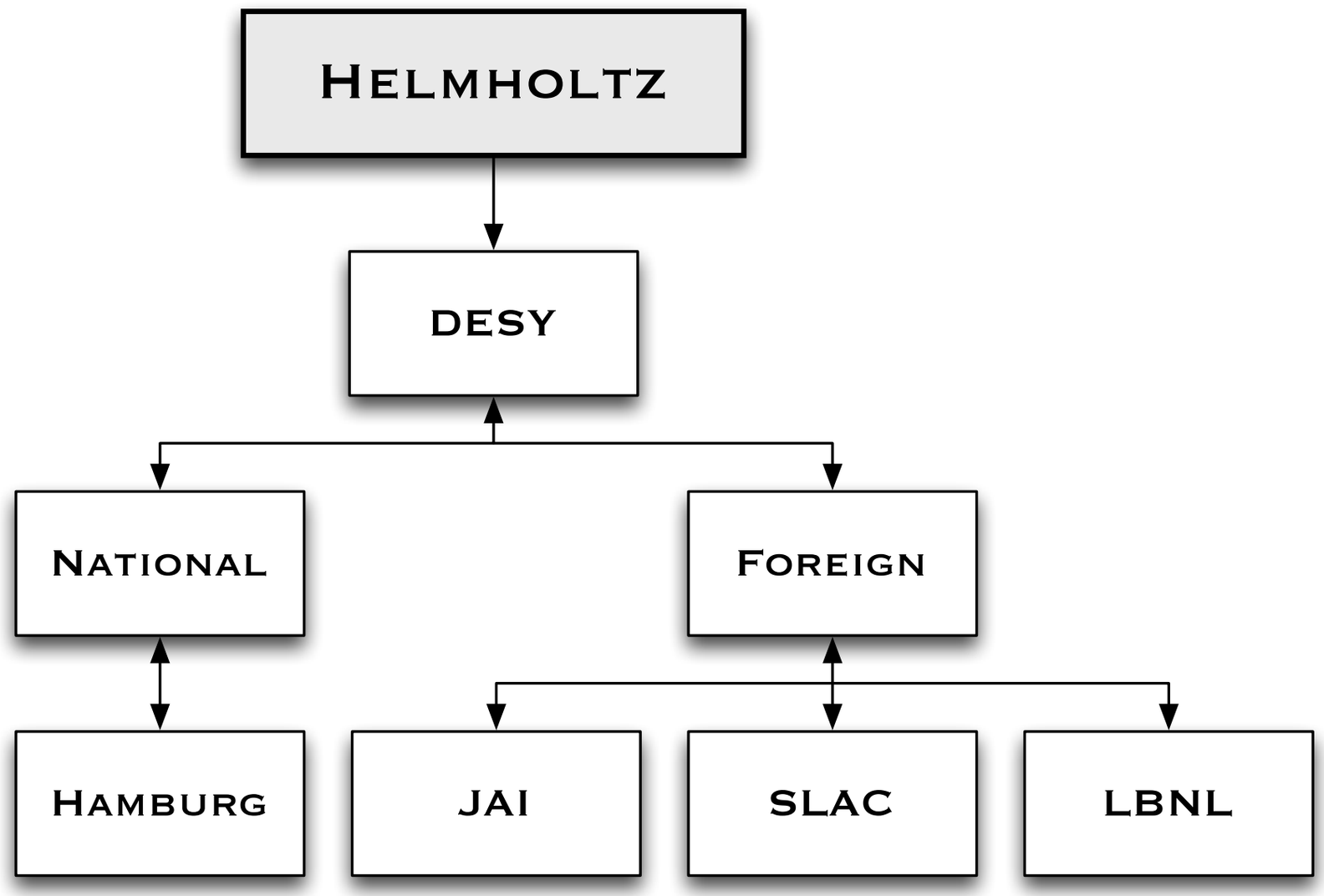
- Funding available for foreign partners

  - to directly contribute to the research and to provide matching funds in order to profit from the bonus
    (JAI)

  - for travel
    (LBNL and SLAC)

Funding

- DESY receives funding for all partners
- DESY distributes according to original funding plan
- Accountability is responsability of partners; DESY annually has to receive a statement



Proposal for future meetings

- Should aim for one Annual Meeting (travel funds foreseen)
    - at **DESY** to observe progress at the facility proper during construction
    - in the Bay Area (LBNL & SLAC)
        - CERN and Frascati
- other meetings will be video conferences to ease participation.