EUROPEAN
PLASMA RESEARCH
ACCELERATOR WITH
EXCELLENCE IN
APPLICATIONS



8th EuPRAXIA Steering Committee Meeting

Ralph Assmann (DESY)
December 14th, 2017, DESY & remote









09:00 Welcome and approval of agenda

09:05 Approval of minutes from 7th Steering Meeting

09:10 Action items from 7th Steering Meeting

09:20 Round table (WP1-WP14): short verbal report, no slides

09:40 A. Walker: 2nd study version parameter

10:00 Round table: Follow-up 2nd Yearly Meeting (few slides welcome from WP leaders)

 Discussion of baseline, included backup options, not included backup options

11:30 AOB





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Action item from 7th SC meeting



Send out reminder for Yearly/Collaboration Meeting (action T. Minniberger)

DONE

Invitation to Collaboration Board Meeting in Lisbon (action R. Mundt).



 Send procedure for new associated partners to SC members via email (action R. Mundt).



 Ask Belfast & Leibnitz for 2-page support letter for associated membership (action R. Mundt).



 All Institutes have to send one representatives to the Yearly and Collaboration Board Meeting in Lisbon in person. Please sent names to eupraxia-admin@desy.de (action all).



 Send out updated EuPRAXIA relevant dates via email to SC members (action Ruth).



• For the update of the EuPRAXIA intranet, please send your Microsoft account/skype account and associated email address to intranet@eupraxia-project.eu (action all).







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EUPRA WP leader's verbal report







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Study parameter table - version 2

Paul Andreas Walker (DESY)

8th EuPRAXIA Steering Committee Meeting
December 14th, 2017, DESY & remote







Some general statements



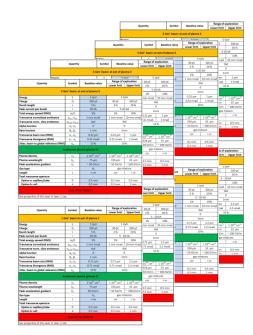
- We received many changes before our Yearly Meeting in Lisbon and 0 changes after the meeting, so the table online is same as in Lisbon (https://indico.cern.ch/event/685636/sessions/258843/#20171214)
- I won't go through the tables and parameters in detail (done in Lisbon in my and WP leader's talks) I will name changes briefly and then we can discuss questions/issues
- Talk should act as a starting point to discussions
 - Phi eluded to the fact that some are not really worked on and we should cross them out if that is the case
 - Still 10 cases on the books and we need to start thinking about the categories:
 (1) baseline, (2) in development, (3) backup solutions
 - What are the criteria for selection of baselines? (TRL 5y; TRL 10y; FEL performance; innovation & technical disruptiveness; can we get it funded?; ...)
 - Final selection in Liverpool?



Parameter table



- Current version also published on indico webpage of this SC meeting: https://indico.cern.ch/event/685636/
- Thank you very much for all the input I received over the last year
- Please continue to work with the parameter table
- Procedure (same as during the past year)
 - Download table and edit table yourself
 - Please indicate your changes by green color
 - Send it to me (<u>andreas.walker@desy.de</u>)
 - I will combine all requests in red color and publish new version





Changes to 1. iteration



- Changes made to 1. iteration marked in red
- Laser parameters now up front not within cases
 - Easier to find; No duplication; Not so simple to know which laser will be used for which case
 - 5J/30fs, 15J/30fs, and 50J/60fs
- Repetition rate 20 Hz (now globally defined by laser parameters, PWFA rep. rate might differ)
- RF injector beam energy increased from 150 MeV to: 240 MeV (DESY) and 540 MeV (INFN)
- Refined 150 MeV LPA parameters (1 mm mrad, 6 mrad, ...)



Changes to 1. iteration

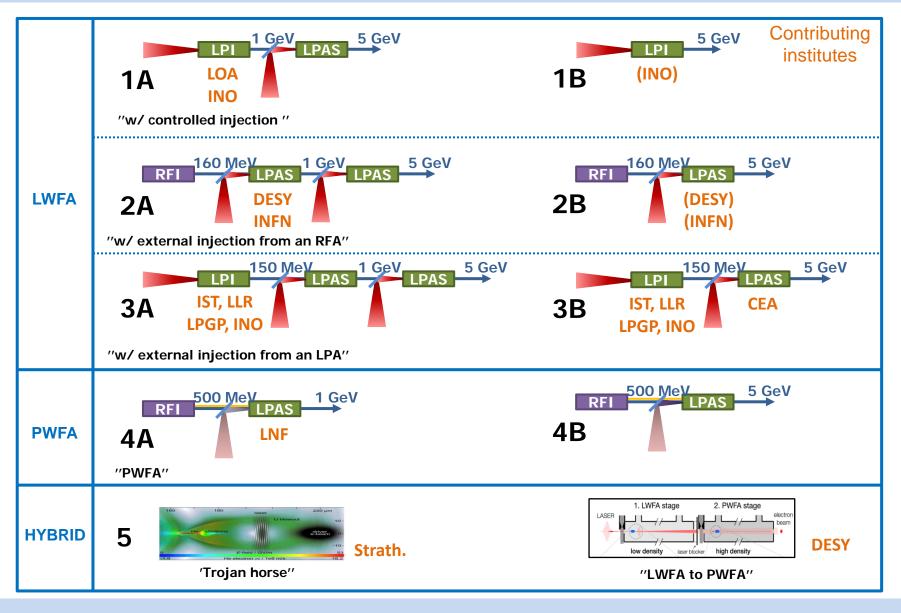


- Added more details (especially slice parameters) for the 1 GeV
 FEL parameters (5 GeV parameters unchanged)
- HOPA beams added with 3 distinct beams
 - FEL high quality -> X-rays
 - low charge -> HEP detector tests
 - high charge & energy -> positrons
- Added PWFA parameters: 500 MeV, 200 pC (with X-band)
- Hybrid parameters: baseline compromise value to accommodate various scenarios



EUPRAXIA 9 (or 10) cases studied by EuPRAXIA







Discussion



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Consortium



16 Participants

































24 Associated Partners

(as of December 2017)

















































