Minutes from EuPRAXIA Pisa Workshop

Session WP1 & 8, Management-outreach-facilities-costing
Time: 30.06.2016, 10:00 am CET
Place: Pisa, Italy

Participants: Ralph Assmann (RA), Andrea Ghigo (AG), , Yuji Sano (YS), Arnd Specka (AS), Andreas Walker (AW), Carsten Welsch (CW).

Action items:

- Form task force for looking into roadmaps (e.g. S3 roadmap) for EuPRAXIA. A workshop could possibly be organized. (RA, AG)
- EuPRAXIA should prepare input for the next European Strategy for Particle Physics in 2018.
- Improve communication between WPs: provide a pdf with email lists of members of WPs, WP leaders, SC, etc and place it online (Ruth Mundt/AW).
- Create Italian, French and possibly Japanese leaflet and reprint English and German leaflet with associated partners (CW).
- Outreach activities (CW):
    - Find a way to present EuPRAXIA at conference with no member present.
    - Series of lecture for university students as well as school children.
    - EuPRAXIA webpage should be mobile accessible.
    - Create a videos on EuPRAXIA and place it on YouTube.
    - Increase twitter presence. CW already has a #EuPRAXIA.
    - Create 1 page introduction on EupRAXIA (RA).
    - WhatsUp could be used for distributing collection of EuPRAXIA news.
    - A comic on plasma acceleration could be distributed.

1) Welcome and general outlook

RA welcomed everybody. EuPRAXIA is seen in Europe as a valued partner and intermediate step towards a plasma linear collider as well as a compact FEL, which would be built in the 2040s. One possible scheme would be that CLIC or ILC is built in the 2020s, and a plasma upgrade to CLIC would be undertaken in the 2040s.

AG stated that for Frascati, the linear collider is most important and the question is if plasma can solve some of the problems for the linear collider. AS mentioned that Paris is debating if development of light sources is a key aspect of their strategy for the future. RA pointed out that external injection must be kept on board - both Frascati and DESY have their own projects in external injection - but that internal injection has to be part of the design study as it is possible to have two experimental lines at EuPRAXIA, one with internal one with external injection.

2) Facility

The cost of the EuPRAXIA facility will be determined in the CDR. We expect a cost of a few 100 million Euros. If funding is approved, it will be distributed to all partners for local work and used to build the facility together at *one* site. It is possible to skip some of the proposed steps below if one country is funding the facility and wants to start building it right away. A facility like EuPRAXIA can be built several times in the world in the 2020s. The steps towards a facility were discussed and are summarized below:

1. Prepare conceptional design report with cost estimate including personnel cost.
2. Approval for 4 years of technical design, R&D, prototyping and site preparation (~50 M€)
3. Approval of full construction funding.
4. Construct facility.

The project will keep a) XFEL applications, b) particle physics and c) medical physics on board. Particle physics because EuPRAXIA is seen as an intermediate step towards a linear collider, and

medical physics, as it is one of the most important application, while requesting some of the hardest requirements. AG pointed out that medical physics wants to see clear goals and it would be important to receive a clear endorsement.

3) Outreach

Outreach to decision makers: an English and German leaflet were produced. The German leaflet will be distributed to German local officials up to the ministry of science. It was decided that an Italian, French and possibly Japanese leaflet would be useful. If local restrictions do not allow scientists to send the leaflets to local politicians and the ministries, DESY could send these for them.

Outreach to conferences: EuPRAXIA has been present at several international conferences and Riccardo Torres will continue to contact WP leaders for information for EuPRAXIA news and the newly created EuPRAXIA files.

Future conferences where EuPRAXIA could be represented are ICHEP, the FEL conference, and medical physics conferences. At some conference EuPRAXIA could be visually present even though a member is not present, which could reduce costs.

Afterwards YS reported on the Japanese approach for outreach which consists of the following actions:

1. Outreach to the scientific council.
2. Events for high school pupils and university students.
3. One symposium per year for the public with 100-200 people attending.
4. Organizing several scientific workshops.
5. Creation of a YouTube video 1 year ago.

From the previous discussion the following suggestions for future outreach activities within EuPRAXIA were made:

1. Series of lecture for university students as well as school children.
2. EuPRAXIA webpage should be mobile accessible.
3. Create a videos on EuPRAXIA and place it on YouTube.
4. Increase twitter presence. CW already has a #EuPRAXIA hashtag.
5. Create 1 page introduction on EuPRAXIA.
6. WhatUp could be used for distributing collection of EuPRAXIA news.
7. A comic on plasma acceleration could be distributed.

4) Site study

The overall design of the site will be discussed together within EuPRAXIA: all facilities suggested must have at least one FEL and one HEP user area, and other common features. The individual site studies can suggest more options but have to incorporate all common design features. The local design studies are performed individually by each laboratory, but related work and studies can be shared between the different site studies, as the design report should present itself coherently. AW will coordinate these efforts. The proposed laboratory names will be EuPRAXIA@sitename i.e. for example EuPRAXIA@SPARC or EuPRAXIA@DESY.

5) Adjourn