Minutes of the 40th CAS advisory board meeting

Tuesday, 7th May, CERN

Present:

K.Wittenburg, O.Boine-Frankenheim, P.Lebrun, N.Delerue, L.Rivkin, C.Darve, P.Collier, E.Chapochnikova, E.Metral, Y.Papaphillippou, F.Tecker, D.Rivoiron, M.Fillipova, H.Schmickler

Excused: M.Ferrario, A.Wolski, F.Bordry, M.Meddahi, A.Safronava

This document plus all other material on indico:

https://indico.cern.ch/event/818673/

1. Report from the past 5 CAS courses. Details see attached slides.
   - In general good CAS courses with significant number of students.
   - Student inscriptions below expectation for "Collider Course" and for "Wakefield acceleration"
   - High student numbers for beam instrumentation and numerical methods.

   Since the beginning of the year 2018 the registration fee is calculated as a function of the number of nights and is **not** indexed depending on the country to be visited. This leads to moderate **benefits** in countries like Romania, but leads to significant **deficits** in countries like Finland (Scandinavia in general).

   → Significant cost savings could only be realized by going more frequently to "cheaper" countries. A new strategy for example two courses every year at the same place and rotation of the other two courses in the CERN member and associate member states will be discussed with the management. So far the overall deficit is covered by the sector.

2. "Low student counts":
   the general impression, which was shared by almost everybody, is that the total available budget for accelerator training is limited in Europe and that the available budget has rather the tendency to become less everywhere. We also realize that many institutes organize "private" schools in order to do local training. This has always existed, but the CERN management should watch that not too many CERN staff gets invited as teacher to these local schools.
   CAS in future needs to accommodate student counts around 60 students per course (on average).
   CAS should make the program such that within one calendar year the courses do not

compete with each other: example: The advanced course on “computational methods” in Thessaloniki is in direct completion with the upcoming “advanced” course in Copenhagen and correspondingly there are much less students from BE-ABP going to Copenhagen (compared to averages of the years before).

3. One of the major differences between CAS and USPAS is that USPAS organizes many courses in parallel. From this a proposal for CAS was derived:
   In the future jointly organize the introductory and advanced general courses in parallel at the same place. This should result in cost savings for teachers, who would teach at both courses.
   Several arguments were brought forward against this proposal and finally it was not retained.

4. For the upcoming years a short list of topical courses was proposed. For the CAS team to convert into a real planning over the next months:

   - Superconducting RF
   - Superconducting Magnets
   - Low emittance rings
   - Compact Accelerators including medical accelerators
   - Digital Signal Processing and accelerator controls
   - Data Acquisition and data analysis
   - Depending on outcome of European Strategy:
     “C^4 Course”:= Compact Cheap Circular Collider
   - Intensity limitation and high power (hadron) accelerators
   - Power converters
   - Particle Sources
   - Beam Instrumentation

5. For the countries the committee follows the priorities as proposed in the powerpoint file.
   An introductory school should soon be held in India.
   The matching of topic to the country has to be done in individual negotiations.
   Prior to assigning a course to a country a significant financial contribution (Scaled to the possibilities) should be mandatory for the CAS to visit the country. To be decided by the management.

6. University credits:
   CAS will also not in the future develop a system for obtaining university credits from a course attendance. The “inofficial” arrangement with EPFL of obtaining some EPFL credits via an oral examination (Lenny Rivkin and CAS deputy) will continue and can be proposed to other interested universities. But no official announcements…

7. MOOCs:
   C.Darve and N.Delerue explained in detail the present activities of generating professional MOOCs on basic accelerator science and technologies.
   (slides on indico).

There was a clear statement that CAS does not need to copy these efforts and produce yet another set of MOOCs.
On the other hand two actions were suggested:
- Make links on the CAS website available to these MOOCs
- Organize for a selected number of CAS courses video recording of all sessions. As post-processing of this video material the committee recommends to generate an index pointing to various sections of the one hour videos. Access to the videos including index (:=CASopedia) will be through the CAS website.
Hermann will conclude a collaboration with the CERN publication service for the filming. Resources for the post-processing will need to be defined and obtained.

8. VISA strategy:
   The written engagement of a student to come to a course plus a proof a payment shall be sufficient to issue a letter of invitation in order to obtain a travel VISA.

The CAS team thanks warmly all participants for their travel efforts and for their active contribution to the meeting.