

7th Executive Committee Meeting of the
IEA Technology Collaboration Programmes for
Co-Operation on Tokamak Programmes (IEA TCP-CTP)

ITER HQ, France, Thursday 8th December 2016
(13:00-16:30)

MINUTES

Participants: Richard Pits (ITER)-Chair, Duarte Borba (EU-EUROfusion)-Secretary, Jong-Gu Kwak (KO-NFRI), Yeong-Kook Oh (KO-NFRI), Si-Woo Yoon (KO-NFRI), Charles Greenfield (US-GA), Stan Kaye (US-PPPL), Richard Buttery (US-GA), Shunsuke Ide (JP- QST), Naoyuki Oyama (JP-QST) Xavier Litaudon (EU-EUROfusion), Tony Donn  (EU-EUROfusion), Lars-G ran Eriksson (EU-European Commission), Ge Zhuang (CN-Huazhong Univ of Sci & Tech), Xuru Duan (CN-Southwestern Institute of Physics), David Campbell (ITER) and Sergey Konovalov (Observer from Russia).

Summary

The IEA TCP-CTP Executive Committee:

- *endorsed the proposal for the preparation of the extension request documents and took note that on the side of the EU the extension requires a European Commission decision;*
- *adopted the Personnel Assignment reports for Jan. 2016 – Dec. 2016;*
- *endorsed the proposals for personnel assignments, and remote participation in 2017;*
- *agreed to the proposal by the US to organise a follow-up Workshop focussed on well diagnosed experiments that can provide information to validate or disprove models for*

disruptions and agreed to include the KSTAR conference in the list of Workshops sponsored under the IEA TCP-CTP;

- agreed to the invitation of Australia to join the IEA TCP-CTP;

- recognised once more the importance of Russia as a major partner in the ongoing collaborations and agreed that the outgoing Chair prepares a new letter of invitation to Russia to join the IEA TCP-CTP addressed to the Kurchatov Institute (addressed to contact person to be identified by S. Konovalov);

- approved the proposal that an EU representative will become the Chair of IEA TCP-CTP Executive Committee, pending confirmation from the European Commission on the status of the official nomination of the EU members of the IEA TCP-CTP Executive Committee and that the new Chair will start the new term effectively from 1st March 2017.

Welcome and Approval of the agenda and minutes of the last meeting

The Chair welcomed all participants to the meeting and the IEA TCP-CTP Executive Committee agreed that the meeting secretary is Duarte Borba (EU). The chair invited Sergey Konovalov to represent Russia as an observer. The proposed agenda was briefly discussed and approved. The minutes of the previous meeting (6th IEA TCP-CTP Executive Committee Meeting) were also approved.

Extension of the IEA Technology Collaboration Programmes for Co-operation on Tokamak Programmes (IEA TCP-CTP)

The Chair confirmed that the extensions of the IEA agreements are done every 5 years. He stressed that the documents for the extension need to be prepared before the next CERT meeting at the end of January 2017. During the discussion on the documents required for the extension, the Chair clarified that it requires an End of Term report, Request for Extension (RfE) questionnaire and a Strategic Work Plan. He added that the proposal is to prepare the documents on the basis of the International Tokamak Physics Activities (ITPA) work and proposed to list the ITPA publications on the joint activities. He stressed that this is a small list compared to the full list of all activities based on the ITPA. The Chair stressed that all

documents need to be finalised by 15th January 2017. The Executive Committee endorsed this proposal, but the EU added that the extension is subject to a European Commission decision.

Decision: the IEA TCP-CTP Executive Committee endorsed the proposal for the preparation of the extension request documents and took note that on the side of the EU the extension requires a European Commission decision.

Reports on the Completed Workshops and Personnel Assignments for Jan. 2016–Dec.2016

The reports were presented on the outgoing assignments by D. Borba (EU), S. Ide (JP), Stan Kaye (US), R. A. Pitts (IO) and J.G. Kwak (KO). D. Borba clarified that the assignments to Australia were listed for information only. It was stressed that assignments from China took place mainly to France for the participation in the WEST project, to Culham UK, San Diego US for the participation in the DIII-D project and Korea for participation in the KSTAR project, but no formal list of assignments were presented.

Decision: the IEA TCP-CTP Executive Committee adopted the Personnel Assignment reports for Jan. 2016 – Dec. 2016.

Contribution to IEA Article for Energy Technology Initiatives 2017

The Chair introduced this topic by adding that an article for the IEA magazine needs to be prepared. In the previous years, the articles focussed on disruptions and control of ELMs. It was agreed to focus the next article on advanced scenarios, long pulse towards steady state plasmas and the respective design of the plasma facing components.

Action: Circulate the IEA magazine on Energy Technology Initiatives to the Executive Committee Members.

The latest issue of the magazine can be found in:

<http://www.iea.org/publications/freepublications/publication/TechnologyCollaborationProgrammes.pdf>

Proposals for workshop, personnel assignments, and remote participation 2017

The Proposals for workshop, personnel assignments, and remote participation for 2017 were discussed by D. Borba (EU), S. Ide (JP), Stan Kaye (US), R. A. Pitts (IO) and J.G. Kwak (KO). In the discussion, it was highlighted that the proposals from the EU were not listed since these are still under discussion within EUROfusion. It was stressed that the proposals presented by Japan are preliminary and it was clarified that these proposals exclude the work carried out by the ITER domestic agency. It was also added that the mission of Urano to JET was to prepare the JT60-SA experiments based on some of the JET procedures. It was also stressed that JET will not be operating during 2017, but it is open to assignments for on-site data analysis. The US is very interested on exchanges regarding the use of Electron Cyclotron Heating for wall cleaning in order to provide information to ITER. It was confirmed also the interest of Japan which has foreseen assignments of personnel in this area.

It was confirmed that the Theory and Simulation of Disruptions workshop organised in Princeton under the auspices of the IEA TCP-CTP will continue in 2017.

In addition, David Campbell introduced the collaboration on the test of the Shattered Pellet Injection (SPI) concept on JET. He stressed that this is a complex agreement and it has been proposed that this collaboration is carried out under the IEA TCP-CTP. David Campbell described that the project includes hardware provided by Oak Ridge National Laboratory (US) to be installed on JET and the respective experiments. Over the last 9 months the administrative agreement has been finalised. It was emphasised that the agreement needs to be endorsed formally by the IEA TCP-CTP Executive Committee once signed by all the parties. It was also stressed that the analysis of the experimental data could be broadened to other parties in addition to those in the present agreement. Therefore, following the present phase of building the SPI equipment and installing it on JET there will be a subsequent phase of carrying out the experiments which needs to be finalised between EUROfusion and the US DOE.

It was also agreed to include the KSTAR Conference in the list of Workshops sponsored under the IEA TCP-CTP.

Decision: the IEA TCP-CTP Executive Committee endorsed the proposals for personnel assignments, and remote participation in 2017.

Decision: the IEA TCP-CTP Executive Committee agreed to the proposal by the US to organise a follow up Workshop focussed on well diagnosed experiments that can provide information to validate or disprove models for disruptions and agreed to include the KSTAR conference in the list of Workshops sponsored under the IEA TCP-CTP.

Further discussions on any outstanding issues

The IEA TCP-CTP Executive Committee discussed further its outreach policy and agreed to invite Australia to join the IEA TCP-CTP. Australia is a member of OECD and David Campbell agreed to start informal discussions before the Chair prepares an official letter of invitation.

In addition, Russia has been invited some years ago and the Chair wrote a formal letter with the application addressed to the director of ROSATOM and no reply was received. However, the IEA TCP-CTP Executive Committee recognises the importance of the participation of Russia since it is a major partner and it was stressed that ROSATOM might not be the right contact. It was suggested to contact the Kurchatov institute instead. It was agreed that the outgoing Chair prepares a letter of invitation for Russia addressed to the Kurchatov institute and that S. Konovalov would assist in identifying the best person to contact.

Decision: the IEA TCP-CTP Executive Committee agreed to the invitation of Australia to join the IEA TCP-CTP.

Decision: the IEA TCP-CTP Executive Committee recognised once more the importance of Russia as a major partner in the ongoing collaborations and agreed that the outgoing Chair prepares a new letter of invitation to Russia to join the IEA TCP-CTP addressed to the Kurchatov institute.

Election of the new chair

In the discussion, it was highlighted that since the most important work of the Chair takes place during the months of January and February, it will be better that the new Chair starts in March 2017 and that the reports to the CERT and FPCC are covered by the outgoing Chair.

Decision: the IEA TCP-CTP Executive Committee approved the proposal that the EU representative will become the Chair of IEA TCP-CTP Executive Committee, pending confirmation from the European Commission on the status of the official nomination of the EU members of the IEA TCP-CTP Executive Committee and that the new Chair will start the new term effectively from 1st March 2017.

Date of the next meeting

The 8th IEA TCP-CTP Executive Committee meeting is foreseen for 7th December 2017, from 14:00 to 16:00, after the next ITPA Coordinating Committee meeting. The date will be confirmed when the date of the next ITPA Coordinating Committee meeting is fixed.