## **EFDA ITER Physics Department Work Programme**

The programme will be implemented under ITER support projects setup within 11 cross topical research areas (A1-A11) among the EFDA Topical Groups and the PWI Task Force, Annex III.2. The cross topical research areas have been indentified in a brainstorming meeting held in March 2011 involving the EFDA CSU and the Task Force and Topical Group leadership; a preliminary discussion with EFDA STAC on 15th April 2011 and the first general planning with the EFDA CSU, Task Force and Topical Group leadership and representatives from the associations that took place in Garching on 5th and 6th May 2011. At the 1st General planning meeting the elaboration of the projects details, involving the EFDA CSU, the PWI Task Force and the Topical Group leadership and representatives from the association that took place in Garching on 5th and 6th May 2011. At the 1st General planning meeting the elaboration of the projects details, involving the EFDA CSU, the PWI Task Force and the Topical Group leadership and the Association staff has started. The process will go to completion at a 2nd planning meeting to take place later in the year. During the elaboration of the projects, the individual goals and milestones will be defined, including the prioritisation of the tasks and allocation of resources. The implementation of the projects will be done under EFDA Article 5 Task Agreements following a Call for Participation in the projects and allocation of priority support will be allocated to projects where the EFDA co-ordination brings a significant added value, supporting projects where individual associations are sub-critical and can only be carried out efficiently under a joint effort.

The proposed support projects reflect in most cases a direct relation with the European Fusion Roadmap Headlines elaborated by the Roadmap HLWG and EFDA STAC. ITER related research areas within EFDA WP2012/13 are the following:

- A1: Prediction of Material Migration and Mixed Material Formation (PWI, DIA)
- A2: <u>Shaping and Controlling Performance Limiting Instabilities (MHD, DIA, H&CD-F)</u>
- A3: Fuel Retention and Removal (PWI, DIA, H&CD-F)
- A4: <u>Plasma rotation (MHD, TRA, H&CD-F)</u>
- A5: Electron Heat Transport and Multi-Scale Physics (TRA, DIA)
- A6: Pedestal Instabilities (ELMs), Mitigation and Heat loads (MHD, TRA, PWI, DIA, H&CD-F)
- A7: <u>Disruptions</u>, Prediction, Avoidance, Mitigation and Consequences (MHD, PWI, DIA)
- A8: <u>Physics of the Pedestal and H-mode (DIA, TRA, H&CD-F)</u>

- A9: Fast Particles (MHD, TRA, DIA, H&CD-F)
- A10: Particle Transport, Fuelling and Inner Fuel Cycle Modelling (TRA, H&CD-F)
- A11: Operation with Metallic Plasma-Facing Components, including High Power ICRH (PWI, H&CD-F, DIA)

Pentru trimiterea de propuneri va rugam sa contactati mai intai persoana de contact a Asociatiei noastre (v. Tabelul de mai jos).

## EFDA areas under the Topical Groups and Taskforces

ITER related research areas within EFDA WP2012/13	Responsible Officers	Contact person at MedC Association
A1: Prediction of Material Migration and Mixed Material Formation (PWI, DIA)	Karl Krieger - <u>Karl.Krieger@ipp.mpg.de</u> Sebastijan Brezinsek - <u>s.brezinsek@fz-juelich.de</u>	T. Craciunescu – <u>c.teddy@infim.ro</u>
A2: Shaping and Controlling Performance Limiting Instabilities (MHD, DIA, H&CD-F)	Piero Martin - <u>Piero.martin@igi.cnr.it</u> Didier Mazon - <u>Didier.mazon@cea.fr</u>	T. Craciunescu – <u>c.teddy@infim.ro</u>
A3: Fuel Retention and Removal (PWI, DIA, H&CD-F)	Marek Rubel - <u>rubel@kth.se</u> Marie-Line Mayoral - <u>Marie0Line.Mayoral@jet.uk</u>	T. Craciunescu – <u>c.teddy@infim.ro</u>
A4: Plasma rotation (MHD, TRA, H&CD-F)	Paolo Mantica - <u>mantica@ifp.cnr.it</u> Simon Pinches - <u>Simon.pinches@ccfe.ac.uk</u>	F. Spineanu - <u>f.spineanu@ifa-mg.ro</u>
A5: Electron Heat Transport and Multi-Scale Physics (TRA, DIA)	Clemete Angion - <u>Clemente.Angioni@ipp.mpg.de</u>	M. Vlad – <u>m.vlad@ifa-mg.ro</u>
A6: Pedestal Instabilities (ELMs), Mitigation and Heat loads (MHD, TRA, PWI, DIA, H&CD-F)	Wojtek Fundamenski - <u>Wojtek.Fundamenski@ccfe.ac.uk</u> Rudi Koslowski - <u>H.R.Koslowski@fz-juelich.de</u>	F. Spineanu - <u>f.spineanu@ifa-mg.ro</u>

A7: Disruptions, Prediction, Avoidance, Mitigation and Consequences (MHD, PWI, DIA)	Rudi Koslowski - <u>H.R.Koslowski@fz-juelich.de</u> Jesus Vega - <u>Jesus.vega@ciemat.es</u>	F. Spineanu - <u>f.spineanu@ifa-mg.ro</u>
A8: Physics of the Pedestal and H-mode (DIA, TRA, H&CD-F)	Mark Beurskens - <u>mbeursk@jet.uk</u> Volker Naulin - <u>vona@risoe.dtu.dk</u>	F. Spineanu - <u>f.spineanu@ifa-mg.ro</u>
A9: Fast Particles (MHD, TRA, DIA, H&CD-F)	Simon Pinches - <u>Simon.pinches@ccfe.ac.uk</u>	M. Vlad – <u>m.vlad@ifa-mg.ro</u>
A10: Particle Transport, Fuelling and Inner Fuel Cycle Modelling (TRA, H&CD-F)	Volker Naulin - <u>vona@risoe.dtu.dk</u> Christian Day - <u>mailto:christian.day@kit.edu</u>	M. Vlad – <u>m.vlad@ifa-mg.ro</u>
A11: Operation with Metallic Plasma-Facing Components, including High Power ICRH (PWI, H&CD-F, DIA)	Sebastijan Brezinsek - <u>s.brezinsek@fz-juelich.de</u> Raymond Koch - <u>r.koch@fz-juelich.de</u>	T. Craciunescu – <u>c.teddy@infim.ro</u>