

13. OTHER ACTIVITIES

13.1. Collaboration with Brazil

IST/CFN has proceeded with the collaboration on nuclear fusion with two Brazilian Institutions:

- Laboratório de Plasmas (LP), do Instituto de Física, da Universidade de São Paulo;
- Laboratório Associado de Plasmas (LAP), do Instituto Nacional de Pesquisas Espaciais, de São José dos Campos.

In 2004, a working programme for the collaboration between IST and IFUSP in nuclear fusion was elaborated, with activities on tokamak operation, control and data acquisition, diagnostics and MHD. The design of a microwave reflectometer for TCA/Br has been jointly performed. A joint project on “identification of local Alfvén wave resonances with reflectometry” to be submitted to the EFDA JET Close Support Unit and to the ASDEX-Upgrade Programme Committee has been elaborated. New software for the CFN VME transient recorder modules in operation on TAC/Br was made. Collaboration with LAP in the development of a multi-point Thomson scattering diagnostic for ETE has proceeded.

13.2. Organization of scientific meetings and exhibitions

- CFN has collaborated with IAEA on the organization of the “20th Fusion Energy Conference” (FEC-2004), held in Vilamoura, Portugal, in November 2004, with 604 participants from 32 countries.
- CFN organized an exhibition of the “EXPO Fusion”, in Vilamoura, from 1 to 6 November 2004 (Figure 13.1). The exhibition has been visited by about 500 students of secondary schools of the south of Portugal.
- Dr. Duarte Borba was member of the Programme Committee of FEC-2004.
- Dr. Carlos Silva was member of the Programme Committee of the “Workshop on the Role of Electric Field in Plasma Confinement and Exhaust”.

13.3. Participation in the management of the Fusion Programmes

- Some members of the Association EURATOM/IST are delegates to Committees of the European Fusion Programme and of the European Fusion Development Agreement (Table 13.1).
- Prof. Carlos Varandas is/was:
 - Chairman of the EFDA Steering Committee;
 - Member of the European Union Delegation to the ITER negotiations;

- Member of the European Union Delegation to the ITER negotiations;
- Vice-Chairman of the “CCE-FU¹ Special Working Group on Possible Joint Implementation of ITER”;
- Member of the Steering Committees of the Bilateral Agreements of EURATOM with Russia, Japan and the US Department of Energy.
- Prof. Fernando Serra is/was a member of:
 - Ad-Hoc Group for the Monitoring of 2003 and Overview of 2003 EFDA Technology Activities: Diagnostic;
 - Ad-Hoc Group from STAC for the “Monitoring of W7-X Project”;
 - Member of the ITPA (International Tokamak Physics Activity) Topical Group on Diagnostics.
- Prof. Tito Mendonça is member of the Inertial Fusion Energy Coordinating Committee.
- Prof^a Maria Emília Manso was:
 - Member of the Programme Committee of the ASDEX-Upgrade Project;
 - Chairperson of the International Advisory Board on Reflectometry.
- Prof. Horácio Fernandes and Dr. Paulo Varela were members of the JET Remote Participation Users Group.
- Dr. Duarte Borba was Deputy Leader of the JET Force M and Leader of the ASDEX-Upgrade Task Force on MHD.
- Dr. Bruno Gonçalves was member of the staff of the Close Support Unit to the EFDA Associate Leader for JET.



Figure 13.1 – View of EXPO Fusion

¹ CCE-FU means “Consultative Committee for the EURATOM Specific Research and Training Programme in the Field of Nuclear Energy Fusion

Name	Member of
Carlos Varandas	CCE-FU
	EFDA Steering Committee
	GoC ²
	CFI ³
	STC ⁴
	EFDA Technology Sub-Committee
Maria Emília Manso	CCE-FU
	EFDA Steering Committee
	EFDA Public Information Sub-Committee
Fernando Serra	STAC ⁵
	EFDA/PIG ⁶
J.P. Bizarro	STAC
P. Silva	STC
	EFDA Technology Sub-Committee
Carlos Silva	AFAC ⁷
J.T. Mendonça	IFEC ⁸

Table 13.1 – Participation of members of the Association EURATOM/IST on the management of the European Fusion Programme and of the European Fusion Development Agreement

² GoC means “Group of Chairmen”

³ CFI means “Committee Fusion Industry”

⁴ STC means “Scientific and Technical Committee”

⁵ STAC means “Scientific and Technical Advisory Committee”

⁶ PIG means “Public Information Group”

⁷ AFAC means “Administrative and Financial Advisory Committee”

⁸ IFEC means “Inertial Fusion Energy Committee”