

THE EFDA GOAL ORIENTED TRAINING PROGRAM EUROBREED

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The overall objective of the goal oriented training (GOT) Programme EUROBREED is helping to provide the necessary broad expert basis to successfully conduct the European breeding blanket development programme along with ITER and the developments beyond ITER, i.e., for a fusion power reactor, comprising the development of the optimum breeder and neutron multiplier materials, the design of specific breeder blanket components for future fusion reactors, and testing the breeding blanket in ITER. The EUROBREED programme, jointly conducted since end 2008 by KIT, AEUL, CEA, CIEMAT, ENEA, FOM/NRG, HAS and UKAEA, consists of eight work packages (WP, see Table 1). Each of the WPs represents a training programme unit for a trainee that is employed in the WP leader association. The basis trainee's programme consists of educational units (about 1/3 of the time) in which the trainee attends courses in fusion technology and on the particular research field. The rest of the time is dedicated to a participation to technical work in which the trainee proceeds along, and enhances, already existing projects of the associations in the framework of the European Breeder Blanket Programme. The following paper presents an overview of the activities of about 18 months of the EUROBREED network. Focus will be given to the illustration of the network educational programme and to the description of the objectives and results already achieved of the different technical programmes.

Table 1: Work Packages (WP) in EUROBREED Network

WP Id	Leader Org.	WP Description
WP1	KIT	Design, procurement and test of solid breeder units
WP2	KIT	Pebble bed development and testing for the EU solid breeder blanket
WP3	CEA	Neutronics and radiation protection shielding design of the HCLL reactor
WP4	CEA	TBM integration in Port Plug with engineering design and interfaces management
WP5	HAS	Measurement techniques development for breeder blankets
WP6	NRG	Pebble bed nuclear performance testing
WP7	CIEMAT	Tritium transport predictive modelling tool for Breeding Blanket design analyses and system modelling
WP8	AEUL	Properties and diffusion of tritium accumulated in fusion reactor materials