

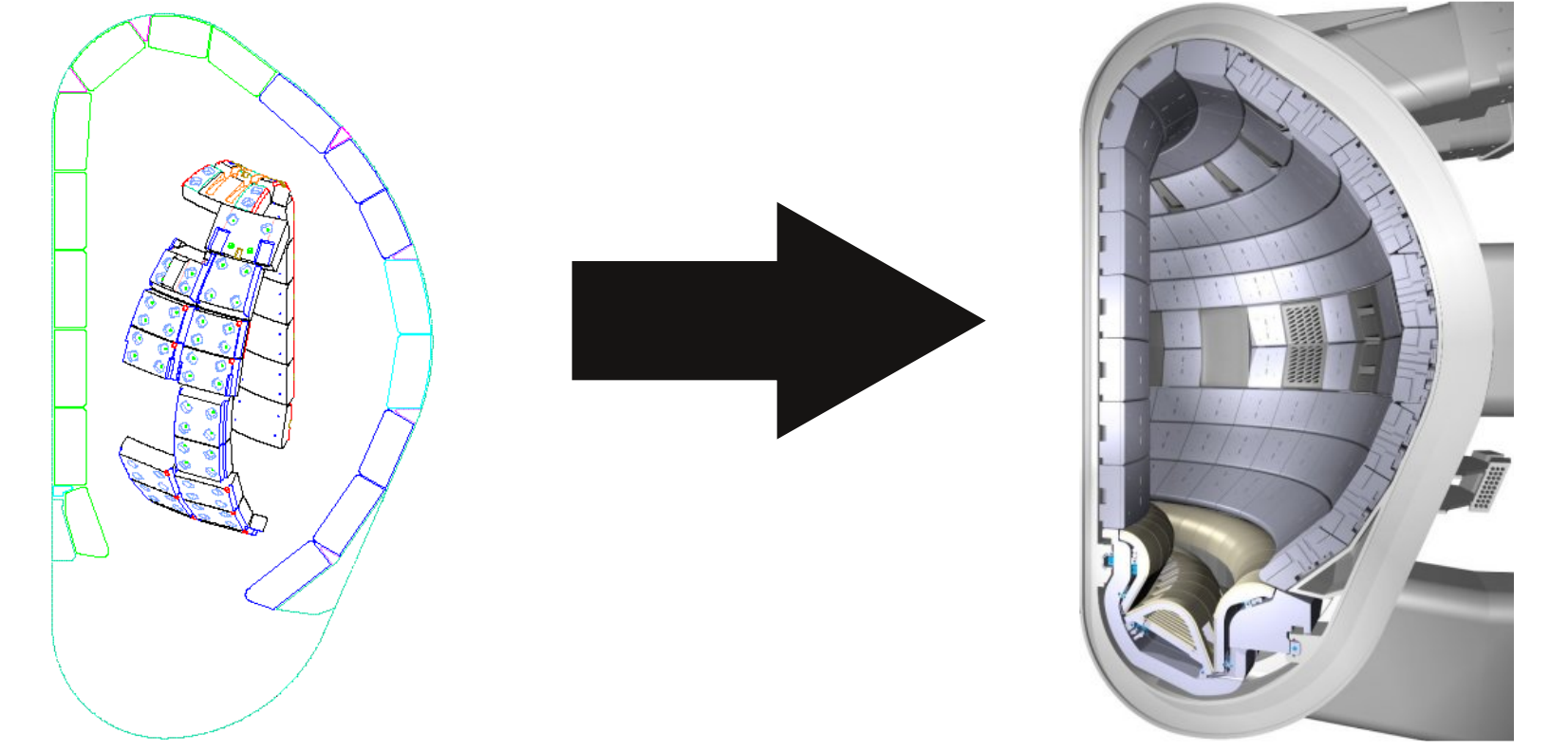
EXPERIMENTAL DEVICES FOR PFM TESTING IN CV ŘEŽ

O. Zlámal^{a,*}, R. Všolák^a, T. Klabík^a, V. Masařík^a

^aCV Řež, Husinec-Řež, čp. 130, CZ25068, Husinec, Czech Republic

Testing of Plasma Facing Materials in CV Řež, Czech Republic:

Beryllium clad mock-ups, tested in CV Rez both out-of-pile and in-pile, will be used as ITER First Wall as the protection of the Vacuum Vessel against neutrons irradiation effects. In order to ensure such components will withstand high heat flux and neutron irradiation conditions within ITER a programme of testing was commenced under European Fusion Development Agreement (EFDA), later transferred under Fusion For Energy (F4E). Its goal is to demonstrate capabilities and performance of Be armour mock-ups under ITER-like conditions.



EFDA tasks: TW6-TVM-TFTEST & TW4-TVB-TFTEST2

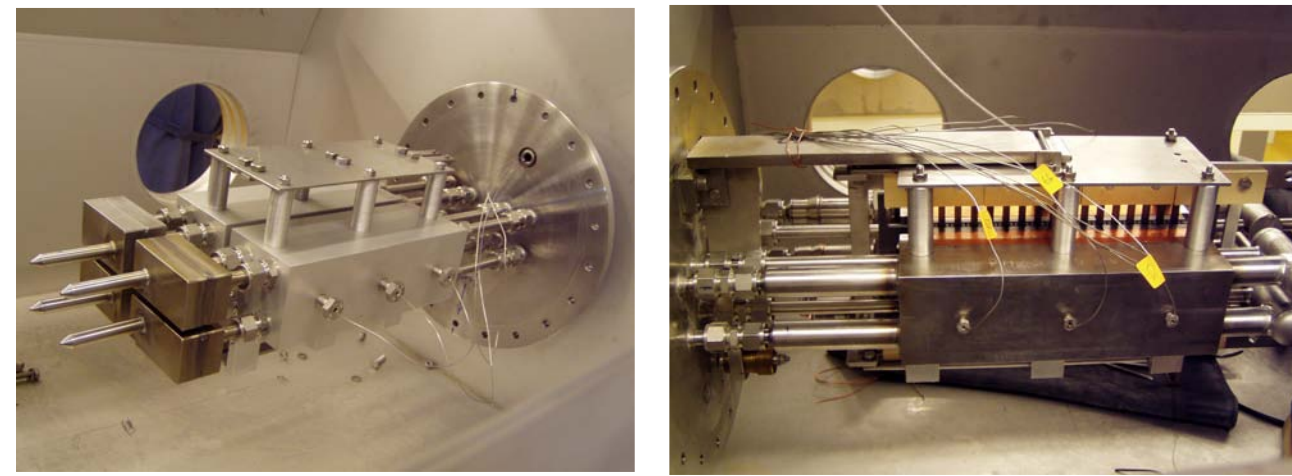
Objectives:

- Construction and commissioning of out-of-pile testing facility capable of cyclic generation of 0.625 MW/m² heat flux and verifying its operation on testing of two mock-ups provided by EFDA (TW4-TVB-TFTEST2)
- Testing of PFW mock-ups provided by 4 Domestic Agencies up to 12 000 cycles with cycle duration of 300 sec. (TW6-TVM-TFTEST)

Construction of BESTH device under TW4-TVB-TFTEST2



Testing of EU and US mock-ups under TW4-TVB-TFTEST2



Testing of RF+KO and CN+EU2 mock-ups under TW6-TVM-TFTEST

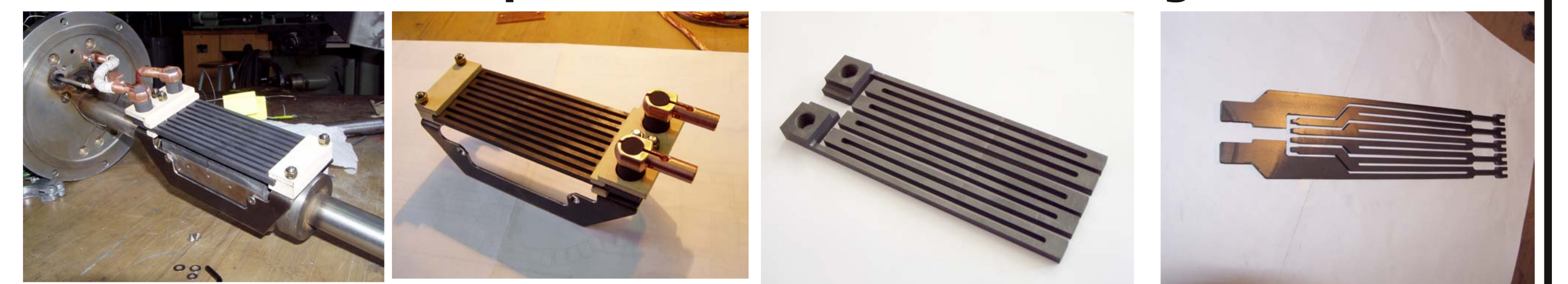


EFDA task: TW3-TVB-INPILE

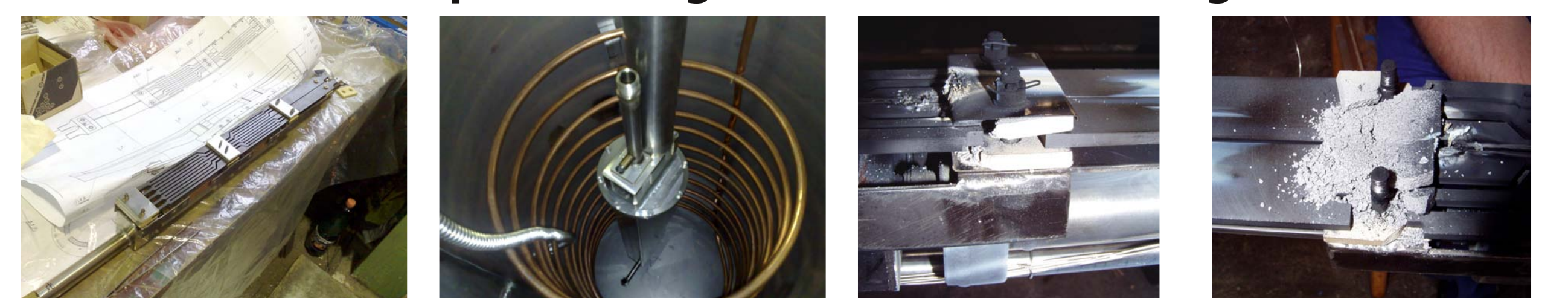
Objectives:

- Develop design of in-pile testing irradiation rig capable generate cyclic heat load of 0.5 MW/m²
- Verify irradiation rig in out-of-pile operation with two EFDA-supplied mock-ups
- Irradiate EFDA-supplied mock-ups with additional heat load in LVR-15

Development of TW3 irradiation rig



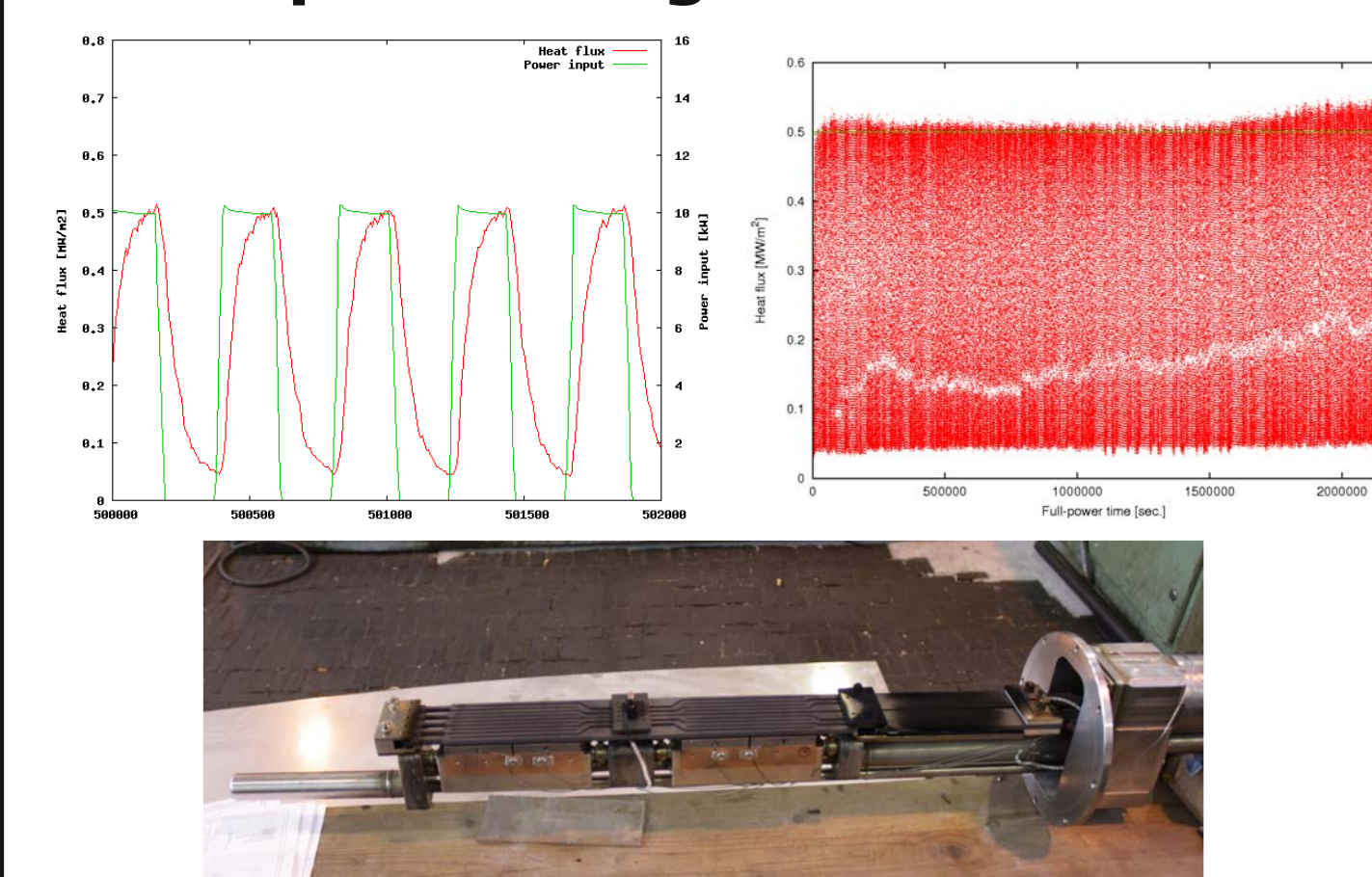
Out-of-pile testing of TW3 irradiation rig



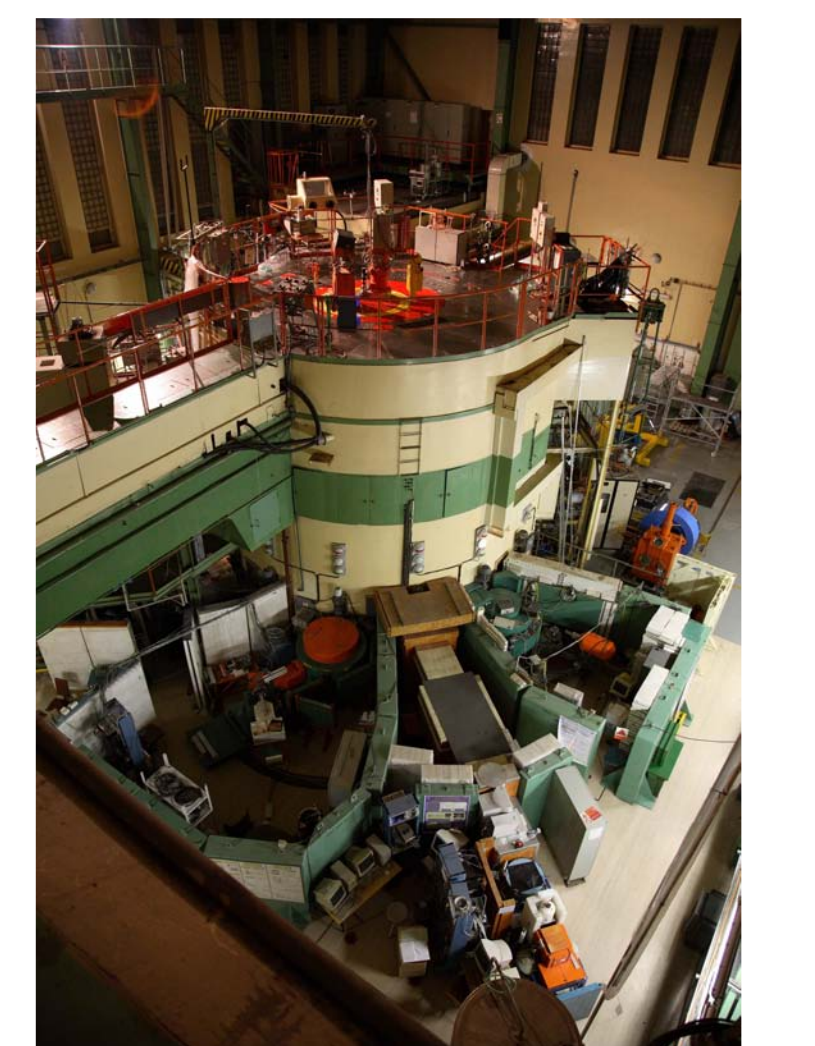
Modification of TW3 irradiation rig



Out-of-pile testing of modified TW3 rig



Irradiation in LVR-15 research reactor



Process of mock-up testing

