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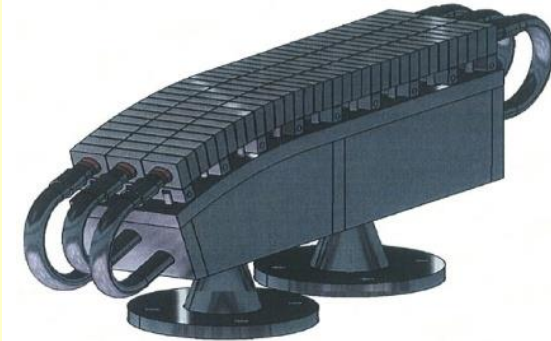
**The WEST Project
a wide partnership for the sake of the
ITER tungsten divertor**

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MIIFED, Monaco, 4th December 2013

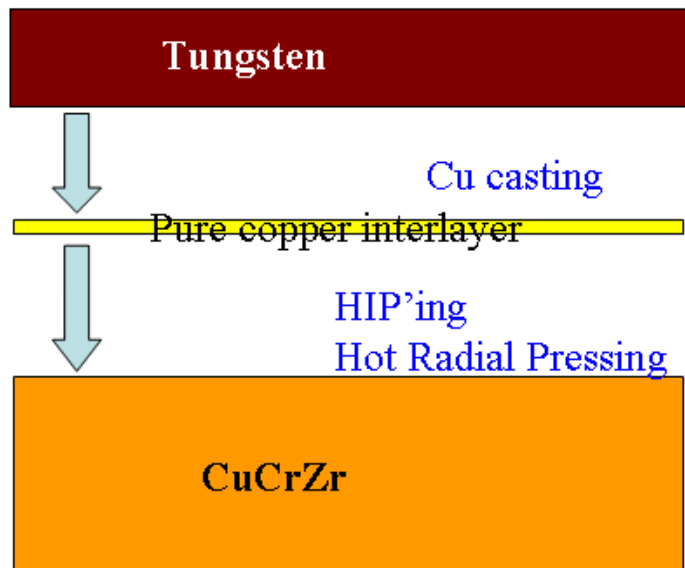
ITER pre-qualification programme for the full-W Divertor procurement: June 2013

**Result - Pre-qualification of 2 EU companies:
Ansaldo (I) and Plansee (A).**



Pre-qualification IVT prototypes

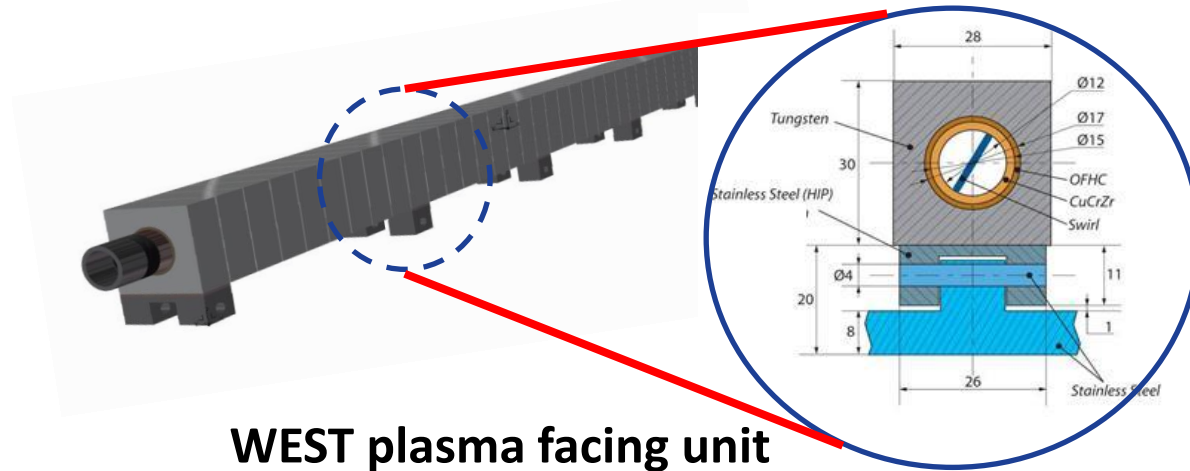
W to heat sink joints



Two joining techniques developed in EU to bond W/Cu to the CuCrZr heat sink pipe:

- **Hot Isostatic Pressing (HIPing)** at 550 C, 5 hrs developed by Plansee;
- **Hot Radial Pressing (HRPing)** at 580 C, 2 hrs, developed by Ansaldo/ENEA.

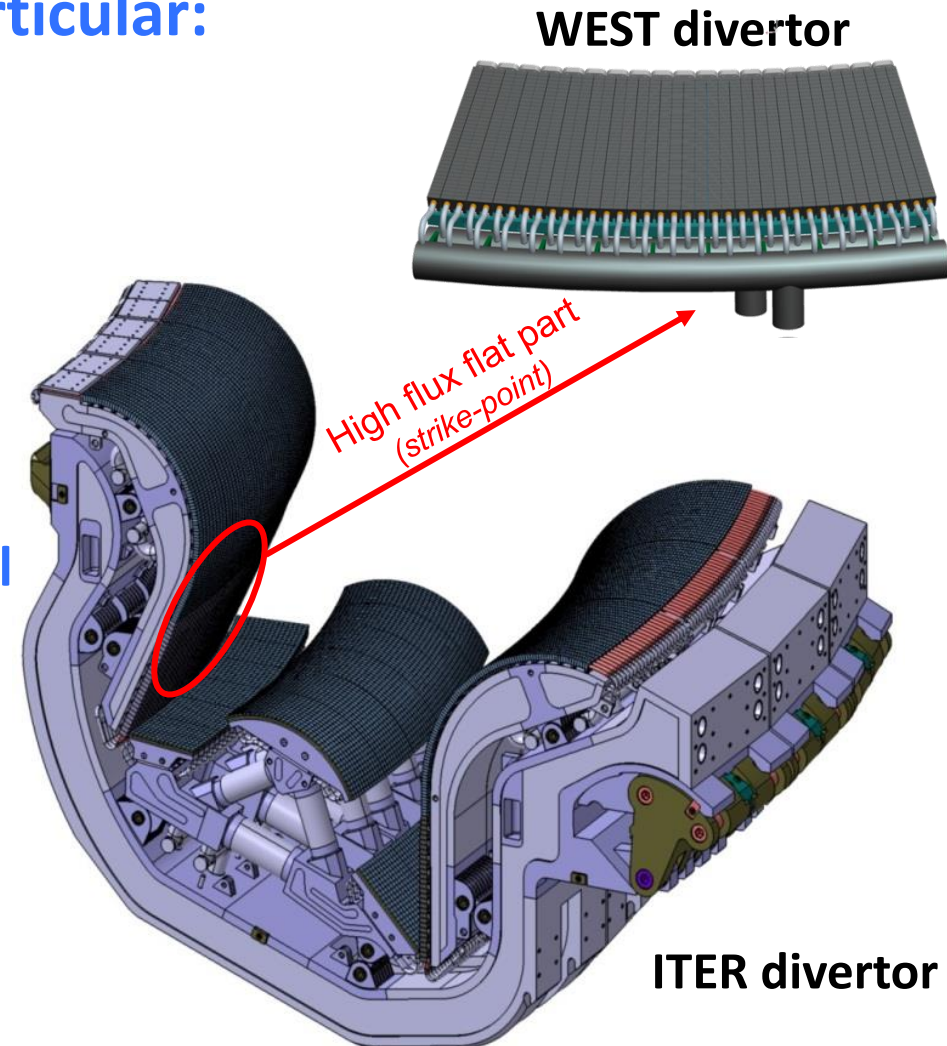
- Similar target fabrication technologies between ITER and WEST divertors.



- Mitigate risks associated with the industrialization of the selected fabrication process(es).
- Fabrication of a pre-series of about 160 West divertor elements and performance of a qualification high heat flux test programme.
- Joint procurement in preparation with both the European pre-qualified companies, Plansee and Ansaldo Nucleare.

➤ Risk mitigation for the ITER divertor Inner Vertical Target procurement through in particular:

- Validation / optimization of the series fabrication processes for W monoblocs and CuCrZr pipes;
- Partial validation / optimization of quality assurance and quality control systems, and of fabrication and non-destructive examination procedures;
- Representative training of dedicated staff under series production conditions.





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