• Remote handling (RH) plays an important role in the maintenance of any fusion device and for maximizing the availability of the machine for operations.

• Very reliable and robust remote handling techniques will be necessary to manipulate and exchange components weighing up to 50 tonnes.

The key achievements of this contribution are

• RH in-vessel equipment for heavy handling (up-to 5.8 tonnes) is conceptually designed

• The major targeted applications are Blanket modules handling and rescue of the failed RH equipment inside the vacuum vessel

• The detailed kinematic assessment has been carried out for the targeted applications

• Similar RH equipment may be required for the In-Vessel RH inspection and maintenance requirements for future fusion machines.