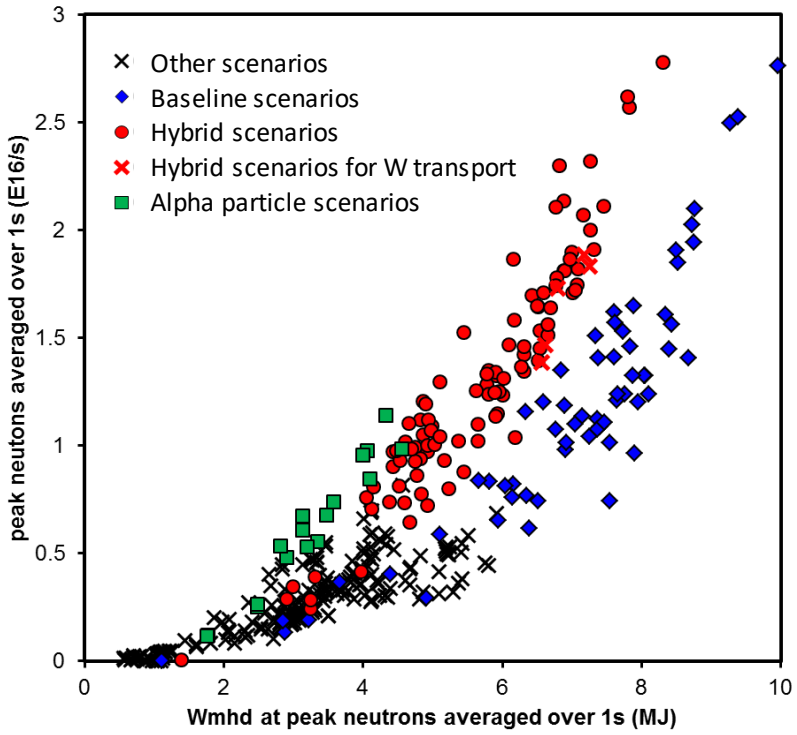
Summary slide - Scenario development for DT operation at JET

- Intense scenario development activity was carried on at JET in preparation for a D-T campaign in 2020.
- Good progress has been made towards reaching the key performance indicators measuring the D-T readiness of a scenario.
- The baseline and hybrid scenario have demonstrated the capability of producing ~$2.2 \cdot 10^{16}$ D-D neutrons/s over 5 s and have the potential to deliver up to 15MW of fusion power at higher power, B_T and I_p, according to predictions.
- The scenario developed for the study of alpha particle effects, has demonstrated the potential of creating a plasma with alpha particle pressure high enough to destabilize TAEs in the afterglow scenario.
- In next experimental campaigns, the scenario development effort for DTE2 will continue and work towards the expansion of the parameter space and the integration of:
  - Disruption prediction and avoidance
  - Divertor power handling
  - Control of impurity accumulation
  - Avoidance of detrimental MHD activity
  - Investigation of isotope effects



Neutron rate as function of plasma stored energy achieved at JET in 2016 campaigns in baseline and hybrid plasmas and in plasmas optimized for alpha particle studies.