Dealing with uncertainties in fusion power plant conceptual development



- In designing a fusion power plant we must understand the *expected* performance as well as the nominal design performance
- This allows the identification of uncertain parameters that have the largest effect on overall uncertainty
- By focusing research effort in these areas, we can increase confidence in plant design performance, and reduce operational margins (and therefore costs)





- Understanding what limits plant performance in different parts of operational space also allows performance margins to be properly assessed.
- Overall aim is to develop ways of finding *fully robust* DEMO designs which we can be confident will perform as expected

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