Question to Prof Falconer: For efficiency reason, is there minimum tidal tidal range for tidal turbine?	RAF: For a tidal range scheme to generally be efficient in my experience one needs to be considering a tidal range of at least 5 m. However, there are a number of factors to consider, including: (i) that the maximum energy for generation is also proportional to the wetted plan surface area, and (ii) the scheme (i.e. barrage or lagoon) may be primarily planned for other purposes (e.g. protection against coastal erosion and with energy generation being a secondary factor)
What technologies could be employed to reduce the carbon footprint of such a construction? I thinking mainly of concrete	RAF: Unable to answer not my field of experience, but I work with colleagues who do have experience in this field. Please email me if you need more info on this matter.
Are there any tidal lagoon already bulit in the UK or world?	RAF: There are currently no lagoons built specifically for tidal energy in the UK so far as I am aware, but there are several barrage projects built work-wide, including: La Rance, Shiwa etc.

What are the most effective energy storage solutions for balancing the intermittent nature of tidal energy, and how feasible are they in terms of cost and scalability?	RAF: Energy storage can be delivered through the use of AI and adjusting the starting head, via a flexible operation approach, to use barrages and lagoons to provide storage to meet generation at times of peak demand.
What technological advancements are needed to optimize the performance of marine renewable energy systems in shallow water? And low tidal range	RAF: In my view the main technological advancements on this front will come through the design and operation of the low head turbines currently on the drawing board and now being designed and tested.