

# Manufacturing 2075

## Workshop: Developing evolvable products for adaptation

How can products evolve to adapt to challenges and users needs?



**Identify a common failure or challenge in a product from your industry area**

*Tips: This may be a common fault such as a broken seal or an effect due to weather conditions*



Stick post it notes



**List as many ideas of how this product /machine could evolve to adapt**

*Tips: This may be based on a design improvement, software application, material, modular concept etc.*



Stick post it notes



**Apply a concept from biology to improve your ideas**

*Tips: A product required to withstand wet conditions could be designed with the lotus flower effect*



Stick post it notes



**What research opportunities and questions can be noted from your ideas?**

*Tips: A research opportunity could be self-healing composite materials for aerospace applications*



Stick post it notes