

## Modelling Development Process

- **Small scale facilities needed for design**
- **Large scale facilities needed for detailed design and validation**
- **Trend is: Increasing sizes of facilities. Need to consider purpose of test rather than just go for the largest scale**
- **Indicative numerical models needed for design**
- **Detailed numerical models needed for detailed design and validation/certification**
- **Lack of integrated models: Wave+Hydro+PTO+Elec.System**

## Need for advances in Modelling

- Work on scale effects to decrease need for large scale facilities (decrease costs)
- Modelling on fatigue/life times of componts
- Benchmarks for typical devices/components
  
- Short term on numerical models:
  - Ressource mapping (shallow water). Boussinesq/Mild slope
  - Integration of numerical models: Wave+Hydro+PTO+Elec.
  
- Long term on numerical models:
  - Experince with CFD. Reference cases needed

