**Why offshore mussel farming?**
+ There’s no nearshore space available (no bays, tourism, etc).
+ Belgian fisheries have severe difficulties (high fuel & low fish prices, limitations in landings) and is looking for other production methods and diversification.
+ Mussel spat is freely available in the sea and attaches naturally on the ropes.
+ Mussels are growing very fast in the North Sea (fig. 1).
+ Almost no fouling or predators.
+ Very little maintenance.
+ The Belgian offshore mussel is an exclusive product (taste, texture, and meat quantity per shell).

**What makes it so difficult?**
- The use of traditional longlines is not practical due to the rough sea conditions and intense traffic in the North Sea.
- Cage structures protect the ropes from these factors but are very heavy and therefore difficult to handle.
- The rough character of the North Sea limits the number of working days on sea, which obstructs a regular supply of mussels to the customers.
- Mussel production areas (fig. 2) are located far from the shore, which increases shipping costs.

**Mussel quality**
- Offshore mussels have no parasites (Buck et al., 2005; Buck, pers. comm.)
- The offshore mussels have a lower pesticide load (fig. 3), PCB and heavy metal load than their nearshore relatives.
- Bacterial load can change very quickly probably due to bird faeces, dredge dumping and/or runoffs during heavy rainfalls.
- The amount of harmful algae never exceeded the norms, but monitoring has not been carried out in spring yet.
- Not all mussel areas are equal. D1 gives the best results, whereas Oostdyck gives no growth at all and Westhinder has less but bigger mussels.

**Offshore shellfish future**
- The combination of offshore windmill farms (e.g. Thorntonbank) and shellfish cultures could be a compensation for the loss of fishing grounds.
- Other species (flat oyster, scallops and algae) could be grown in combination with mussels. Oyster and scallop spat can be obtained from land-based hatcheries.
- Improvement of the growing and harvesting techniques could reduce production costs.
- The use of submerged longlines in well defined areas might be an answer to the heavy cage structures.