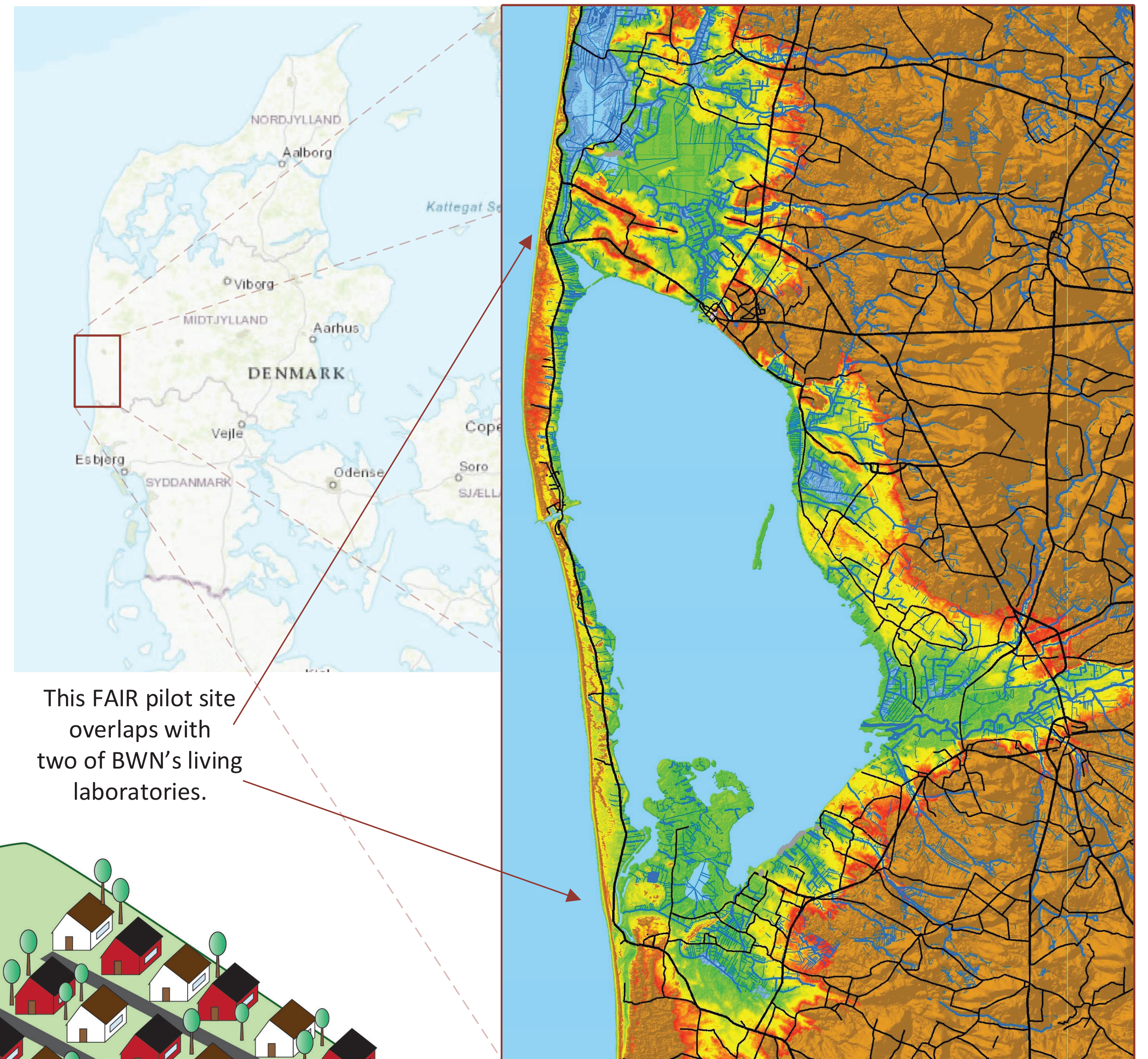




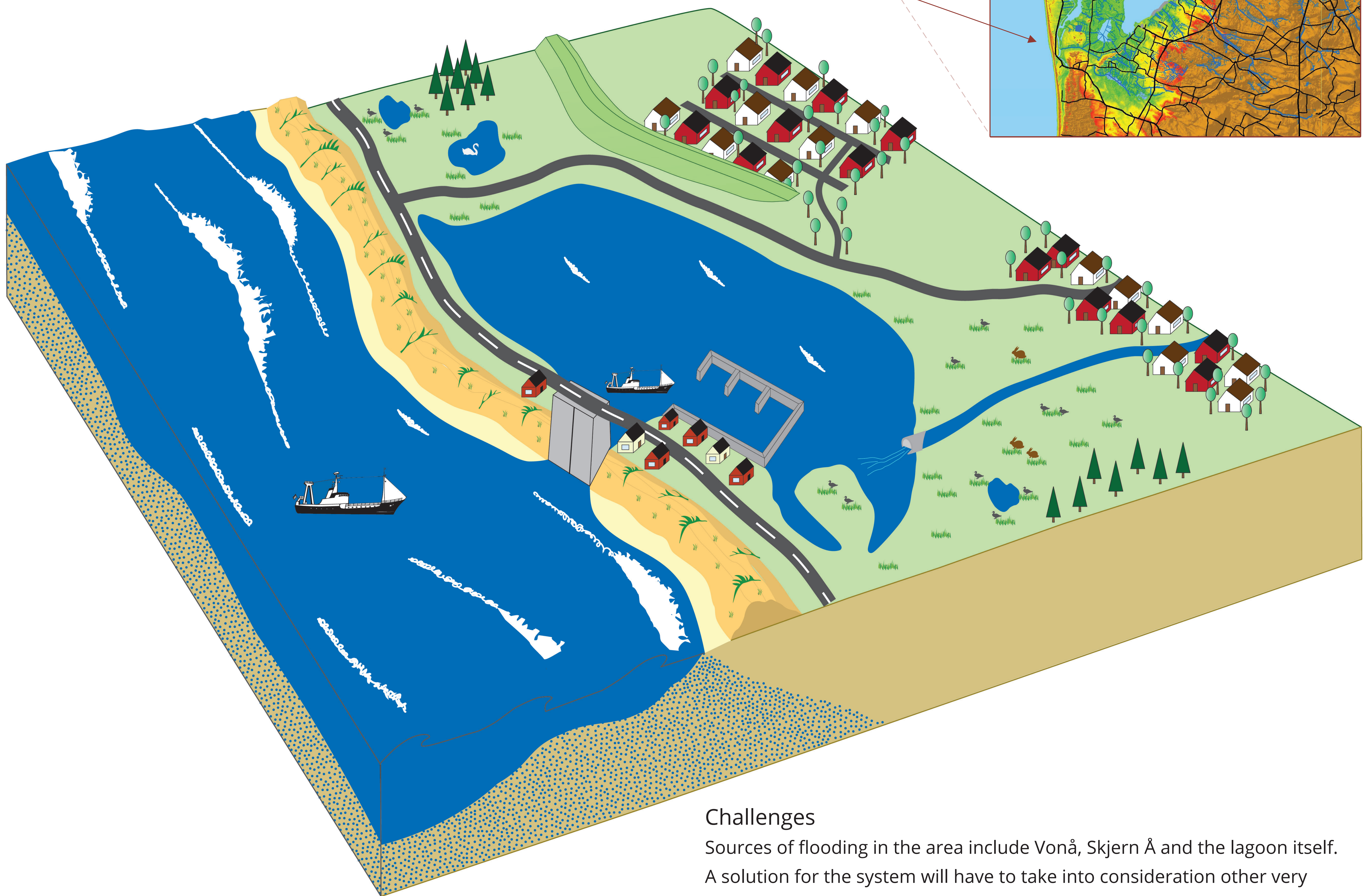
Ringkøbing Fjord and Hvide Sande

Ringkøbing Fjord is a lagoon on the west coast of the Jutland Peninsula, separated from the North Sea by a long and narrow isthmus called the Holmsland Dunes. A floodgate coupled with a lock is located at the town of Hvide Sande, in the middle of the Holmsland isthmus. Skjern River, the largest in Denmark, flows into the lagoon near the town of Skjern. Other smaller rivers also flow into Ringkøbing Fjord.

Several settlements lie within the pilot area, including the larger towns of Ringkøbing and Skjern, together with some smaller communities, including several summer cottage villages. The area is also home to important protected habitats and, at the same time, experiences ongoing urban development. Inhabitants and holidaymakers use the lagoon for recreation and fishing, both for sport and commercially. The small town of Hvide Sande is a centre for tourism, fishery and shipbuilding and functions as a supply and support harbour for the offshore industry.



This FAIR pilot site overlaps with two of BWN's living laboratories.



Multifunctionality

The floodgate at Hvide Sande provides flood defence but at the same time fulfils the functions of water level and salinity regulation for the lagoon. The accompanying lock facilitates the communication between Ringkøbing Fjord and the North Sea, mainly for pleasure crafts.

Challenges

Sources of flooding in the area include Vonå, Skjern Å and the lagoon itself. A solution for the system will have to take into consideration other very important issues such as pollution in the lagoon, which has been a problem historically, salinity, and water quality in general. It is expected that the gate at Hvide Sande will be able to continue to serve its main purpose of water level regulation for at least another 50 years. However, the gate's other functions are challenged because of climate change. Balancing multiple asset functions while dealing with the uncertainty of climate change are the main tasks of the FAIR group.