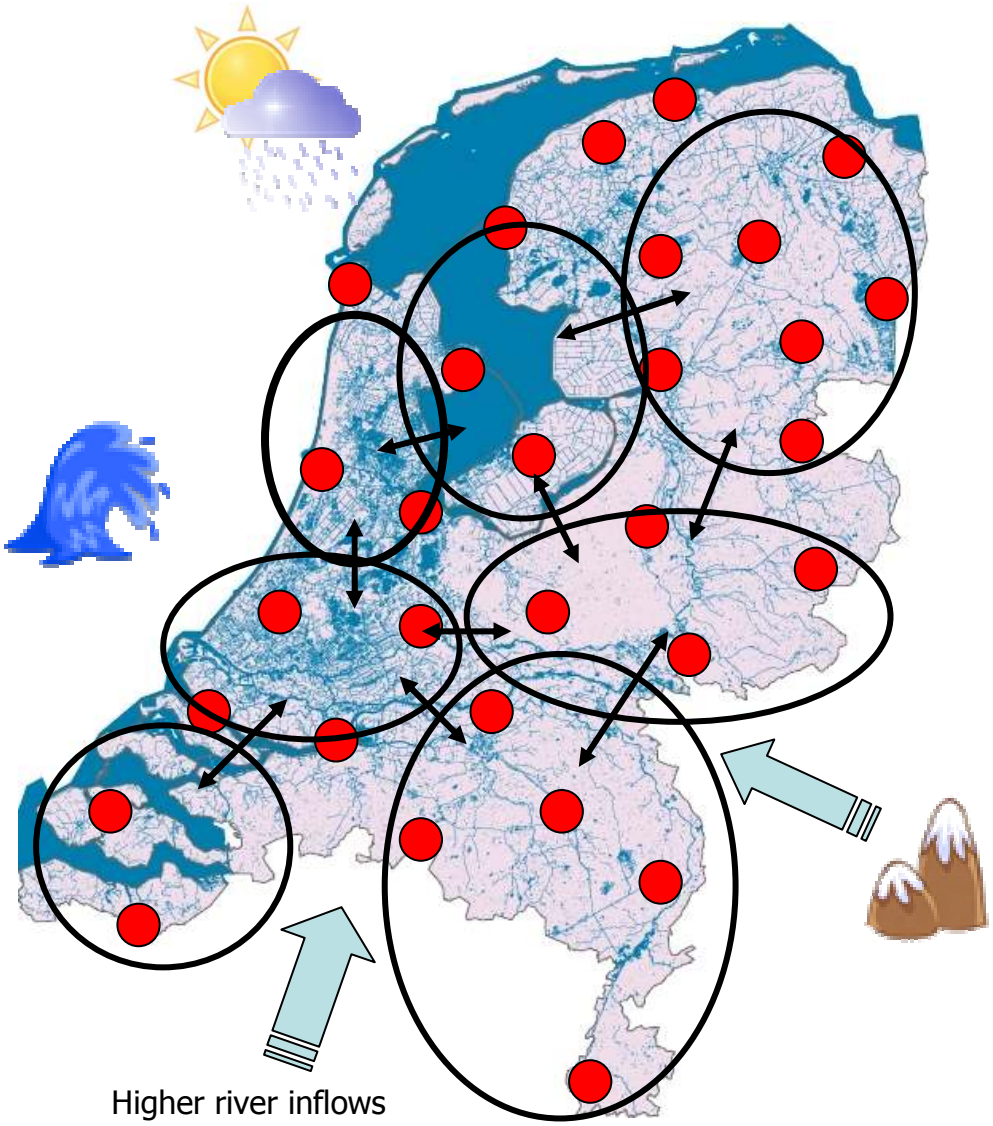
**MSc project**

# Model predictive control for the optimization of the Dutch river flows




**Develop a technical solution for a highly-relevant societal problem**
Climate change leads to more intense rainfall, higher peak river flows from Belgium and Germany, a higher sea level, and longer periods of drought. The operation of the Dutch water system is therefore reaching its limits. A new control strategy for control of the Dutch river system has to be developed to prevent severe problems in the near future.

We have the model of the Dutch water system. Can you determine how the actuators (pumps, gates, sluices) have to be controlled such that we keep dry feet and have enough drinking water on the one hand, while minimizing energy consumption on the other?

**Ingredients**
Model predictive control, (distributed) optimization.

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