Improved flood control and water quality with a smart water solution
See how the city of Vejle in Denmark protects its streets from flooding

Better flood protection
Improved flood protection with lesser flood damages

Improved water quality
Smarter operation of flood control structures improves the quality of water in the river

Early warnings
The implemented early warning system results in better emergency management

Challenge
The city of Vejle needed to operate its existing two flood control structures in a smarter way.
The dilemma: Protecting one part of the city from flooding by a particular operation of the diversion structure could easily cause flooding in other parts of the city.
Similarly, the water quality of the river will suffer if the flood gates are closed for a prolonged period of time.

Solution

Solution highlights
- Real-time data from rainfall radar to provide nowcast of rainfall for the next two hours
- Integration of real-time data and forecasts from various sources into a single platform
- Real-time forecasting with MIKE Powered by DHI’s models for ground water, rivers and storm water drainage
- Real-time control of flood control structures using rainfall nowcasts, sensor data and flow and water level forecasts

About the client
Vejle Municipality (Vejle Kommune in Danish) is the municipal authority in the city of Vejle and surrounding smaller cities, with a combined population of approximately 113,000. Vejle Waste Water Utility (Vejle Spildevand in Danish) owns and operates the waste and storm water network as well as waste water treatment plants within Vejle Municipality.