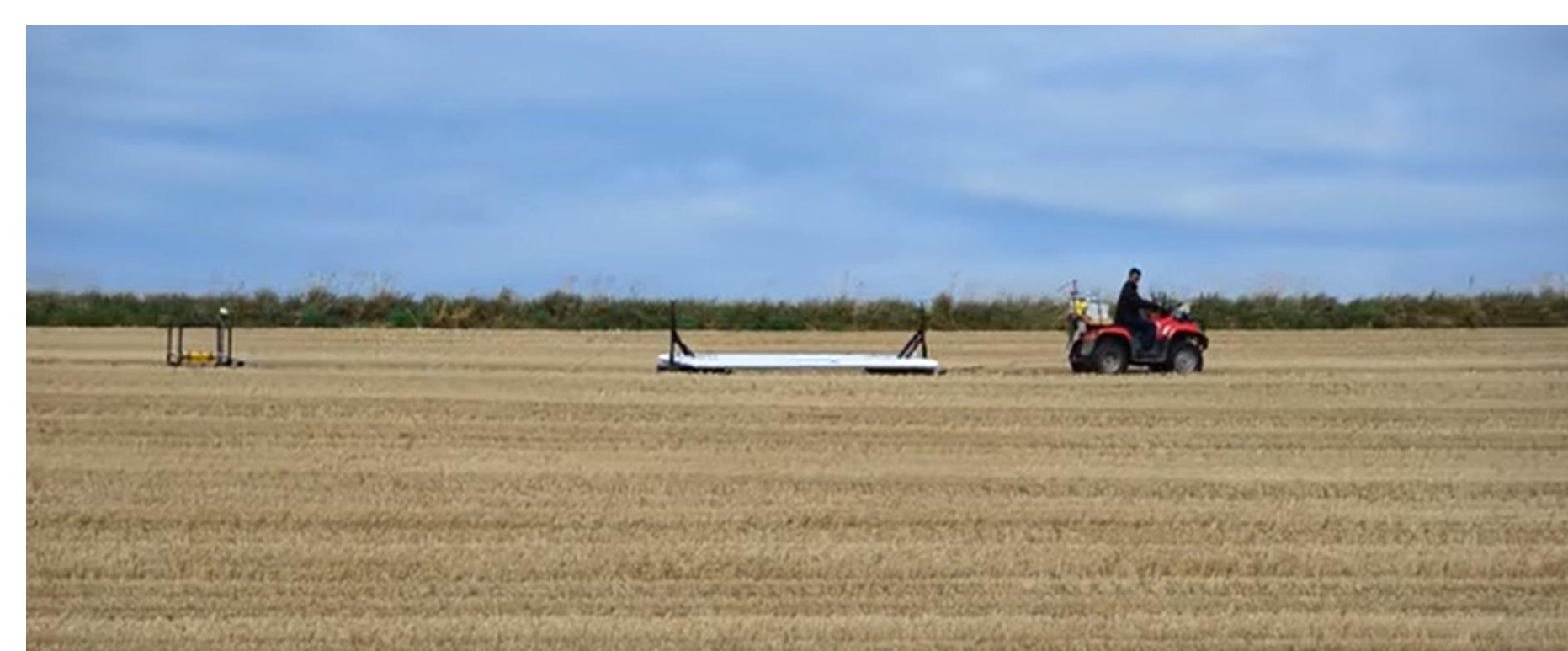
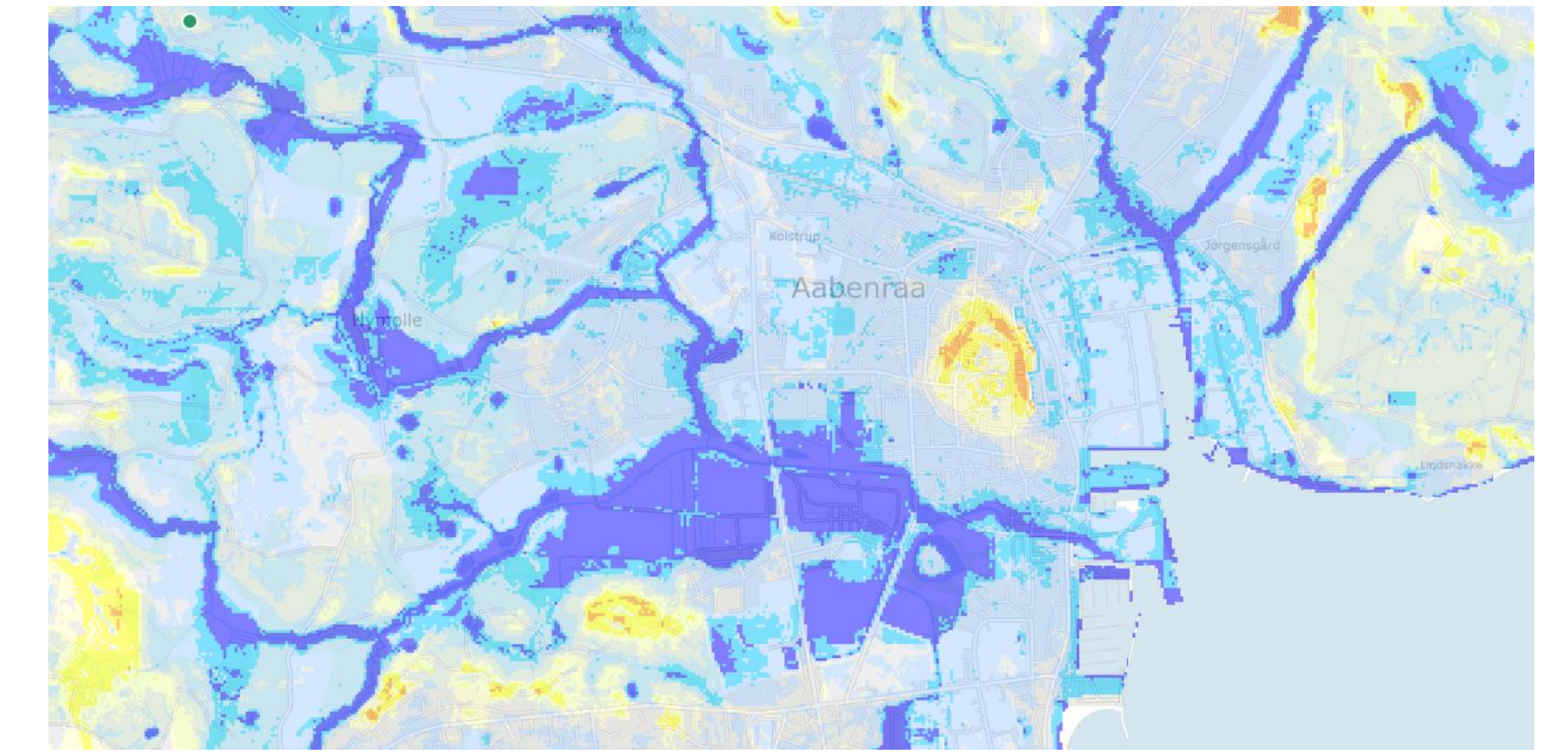


### Pilot summary

This project focuses on holistic approach in climate adaptation. Project includes two pilot areas within Aabenraa Municipality: Aabenraa city and town of Bylderup-Bov, which are both areas threatened by flooding caused by the changing climate: increased precipitation, flooding from the nearby river and a rising groundwater table. Additionally is Aabenraa city at high risk because of storm water overflow from Aabenraa Fjord.

**The Bylderup-Bov case** represents area threatened by flooding caused by the changing climate: increased precipitation, flooding from river Slogså and a high groundwater table. The pilot includes changing of agricultural areas into a nature areas and retaining of surface water up the river, restoring of the natural watercourse, reducing of CO2 emission, integrated water management and green infrastructures as well as biodiversity, recreation and healthy soils.



**Aabenraa city** is threatened by flooding caused the changing climate: increased precipitation, flooding from Mølleå, storm water overflow from Aabenraa Fjord and a rising groundwater level. The solution is to retain surface water up the river as a nature area and establishing a pump-floodgate station down the river. However, there is a risk that this affects the groundwater balance and mobilize the contamination in the city. For assess the risk a holistic solution is needed, that includes modelling of geology, hydrology.

### Activities

Planned activities for both pilots will include:

- Collecting relevant existing hydrological data
- Establishing boreholes for monitoring og groundwater level, flow and contamination
- Installing of the IoT-censors
- tTEM measurements
- Seismic measurements
- Groundwater analysis for contamination assessment (in Aabenraa)
- Investigation of the existing water infrastructure, which can affect groundwater flow
- 3D Geological modelling
- Groundwater modelling
- Modelling of the impact of climate change on groundwater levels and flow
- Modelling of the effect of preventive measures on groundwater levels and flow
- List of the possible solutions on how to lower the groundwater level, based on the modelling
- Assessment of the socio economic impact of the nature-based solutions on the agricultural areas (in Bylderup-Bov) and urban areas (Aabenraa city)



### Governance

For both pilots will there be hold meetings and workshops to insure spreading of the knowledge about the challenges and share results of the project. As the nature-based solution are most wanted, it is very important to involve a stakeholders and citizens/farmers in the process.

**Bylderup-Bov:** The cooperation with wastewater company ARWOS is crucial for the success of the project and for the correct identifying of the problems. Together with a farmer organization LanboSyd and Sønderjyske Vandløb - collaboration about streams of Southern Jutland, will there be arranged meetings with involved farmers to raise awareness and to better understand the necessity of the approach.

SØNDERJYSKE VANDLØB



**Aabenraa City:** The meetings with citizens of Aabenraa is to inform about the project, the necessity of the action within the wider perspective and to give the ownership for chosen solutions. This approach will guarantee a success in implementation. We will also use social media to share information about the project. The nature-based solutions are solutions, that will impact the city and its use in many ways and it needs to be communicate properly.

