

Pilot: Hagens møllebæk: Test Cathment officer concept

Pilot: Skive Fjord and catchment: Test "local based water plan"

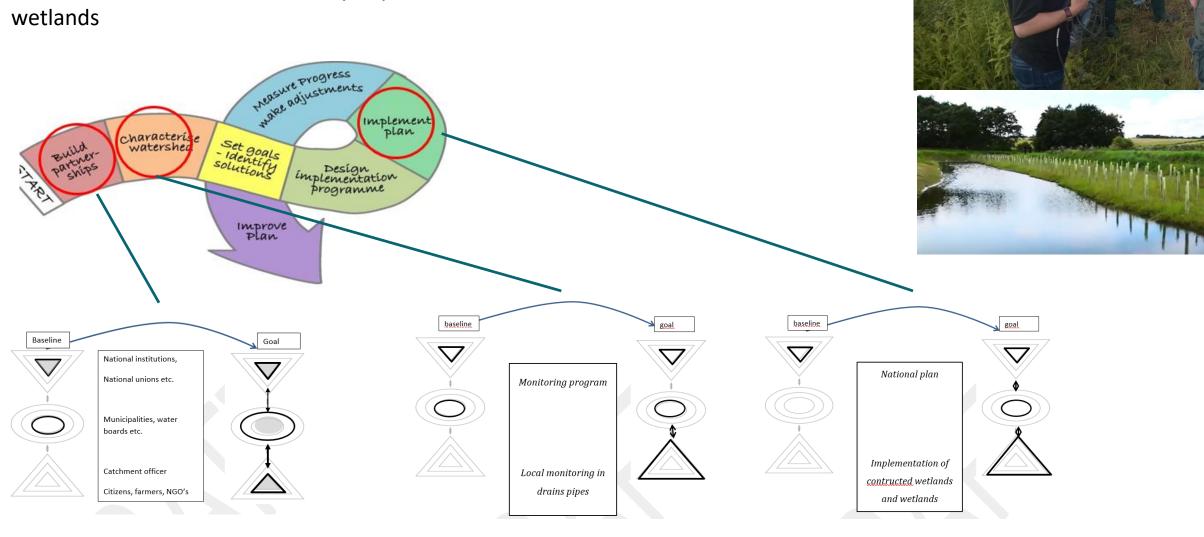






# Pilot: Hagens Møllebæk

Implement a governance-structure including a catchment officer's to focus on and effectively implement constructed wetlands



### **Catchment officers**

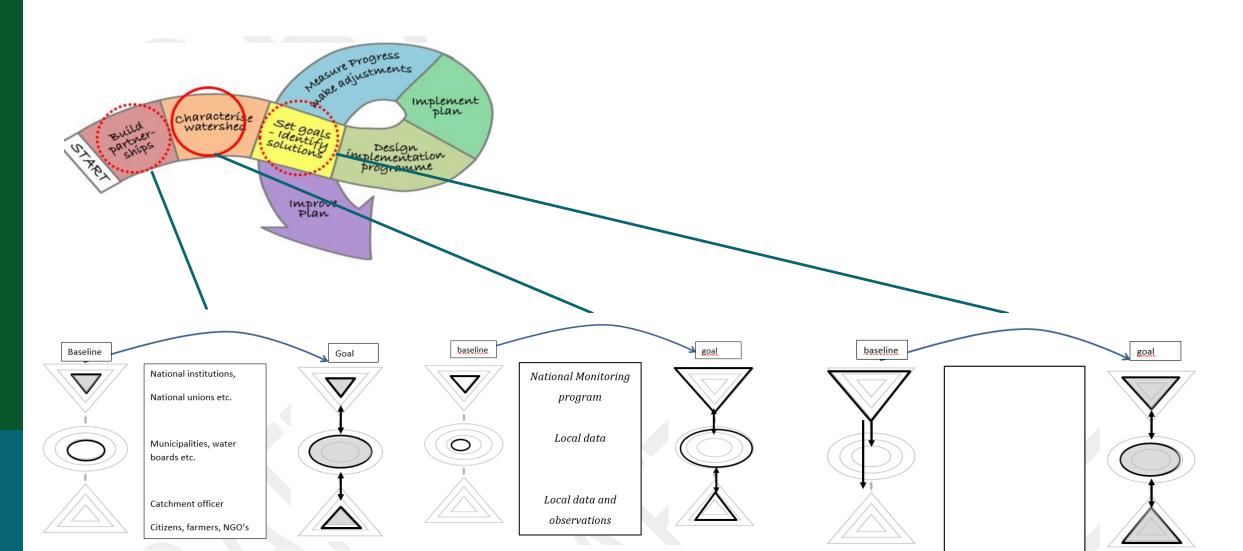
Upscaling Catchment officers in national program (ripple effect)

- 28 Catchment officers employed in 2017
  - Finding measures to reduce nitrogen emission with 2400 ton before 2021
  - 900 ha constructed wetlands (status 5 %)
  - 13.000 ha wetland restauration (helping municipalities)
  - Also registration sites for other (new) measure



## **Pilot: Skive Fjord & Catchment**

Testing "local based water plan". (WFD, Article 5)

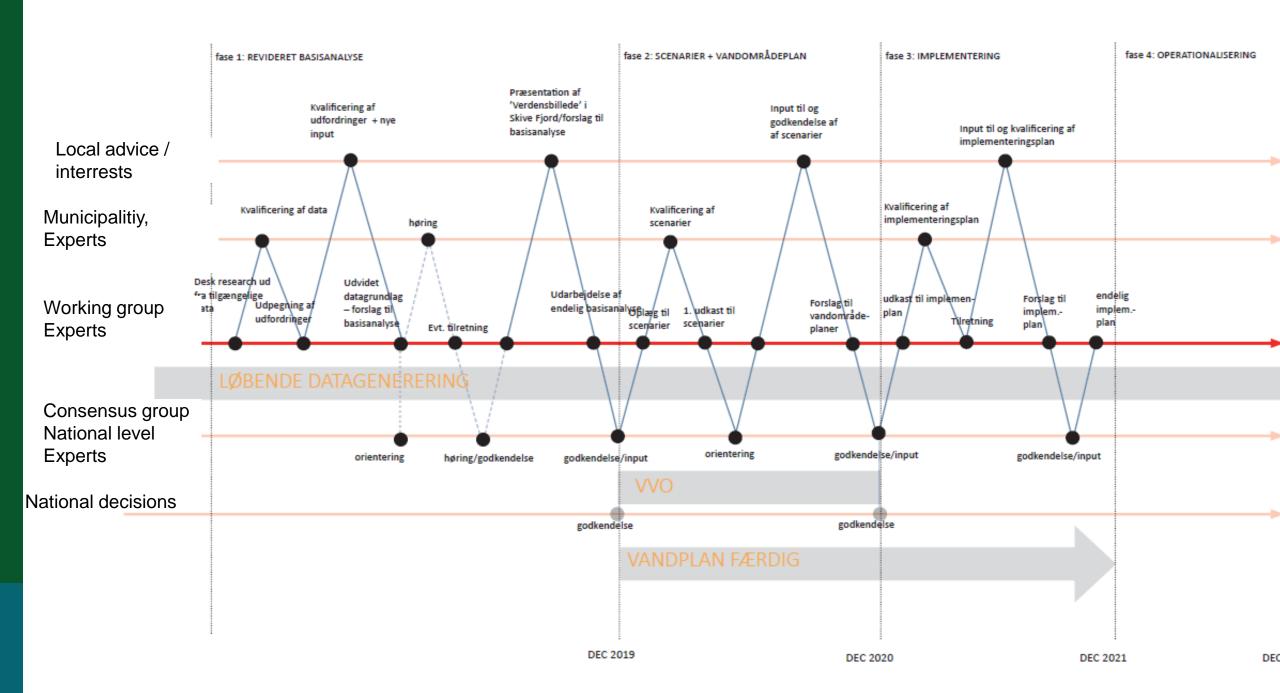


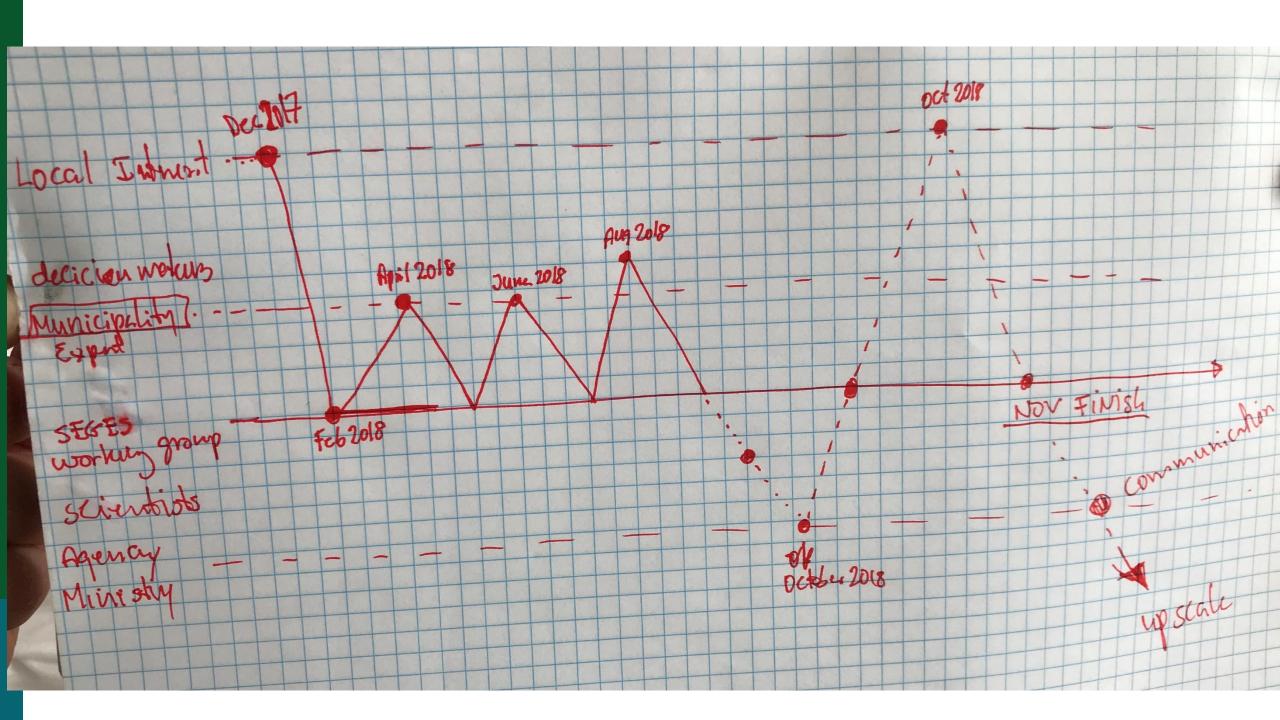
# **Skive Fjord Pilot**

#### Key delivery

- Report of environmental status Skive Fjord
  - 36 years data from national monitoring program
  - report 50 pages, Appendix 200 pages
- Involving all stakeholders using "time schedule progress tool for better top-down bottomup involvement"







### **Tools**

#### Hagens Møllebæk specific tool

- SCALGO tool for identifying and estimating catchments for environmental measures (based on 40\*40 cm elevation model)
- MapInfo add-on tool "Graveværktøjet" for estimating amount soil removal for constructed wetlands
- Deltarres Nitrate app and strips (harvesting of Danish data into a Danish database in a other project)

#### **Skive Fjord specific tool**

- Developed time schedule progress tool for better top-down bottom-up involvement
- Demonstration of better top-down bottom-up participation in characterizing phase (report outline) – continued upscaling of model for better characterizing top-down bottom-up with more fjords.



### Communication

#### Hagens Møllebæk

- Two videos and two articles
- 2 workshops/meetings/field trips/letters to farmers

#### **Skive Fjord**

- Initiated new network people working with bottom-up processes and people working in agencies and ministries (2 meetings held and 1 more planned)
- Making of a project flyer
- 2 articles and 1 article yet to published (all three on a national level)
- Interview with local stakeholders (10 persons), 3 meetings with local authority, 1 meeting with Ministry, Agencies, 1 workshop with local stakeholders, 1 feedback loop from scientists



## **Indicators**

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Project Result Indicator: Improvements to the environmental status of pilot areas (Min.Target: 15%)						
Pilot DK Hagens Møllebæk: By implementing constructed wetlands, the pilot will contribute to a reduction of	No of constructed wetlands made	3	No in project start	No made in project period		
nutrients runoff into the streams in 2022.	No of farmers having a dialog with Catchment officer	10	No in project start	No of farmers contacted		
	Nitrate concentration in drainage water from catchment	25% less nitrate	Concentration in drainage water	Difference between input and output concentration from constructed wetland		
Up scaling Catchment officer and constructed wetland in national program	No of catchment officers part of national program	24	No in project start	No in project period  No of potential sites		
Implementing Constructed wetlands with use of catchment officers has become a national program from 2017 after testing in Hagens Møllebæk	No of potential sites suitable for different measures (with different ecosystem services) found by catchment officer's national	500	No in project start	found.		
	Potential N og P (kg) removed from fresh water ecosystem	XX and xx	No in project start	Average effect for each measure accumulated to a total		



# **Indicators**

<u>Objective</u>	Indicator	How will you measure the indicator?			
		Target Value	How have you measured your baseline? (Where do you get the data from?)	How will you measure if you have reached the target?	
More involvement in the characterizing phase of Skive Fjord concerning implementing WFD	Report of local based characterizing of Skive Fjord	1	start	No of report	
	No of local stakeholders involved in the characterizing of Skive Fjord	20		No of stakeholders	
	Procentage of involved that fines the process will improve water quality issues	70 %		Interview	

