



# CS1



**Poland**  
Pond aquaculture.  
Carp.



Industry partner: Ińskie Centrum Rybactwa sp. z o.o.



Research partner: West Pomeranian University of Technology in Szczecin



Stakeholder: Carp farmers

## Challenges

### 1. Changes in water supply

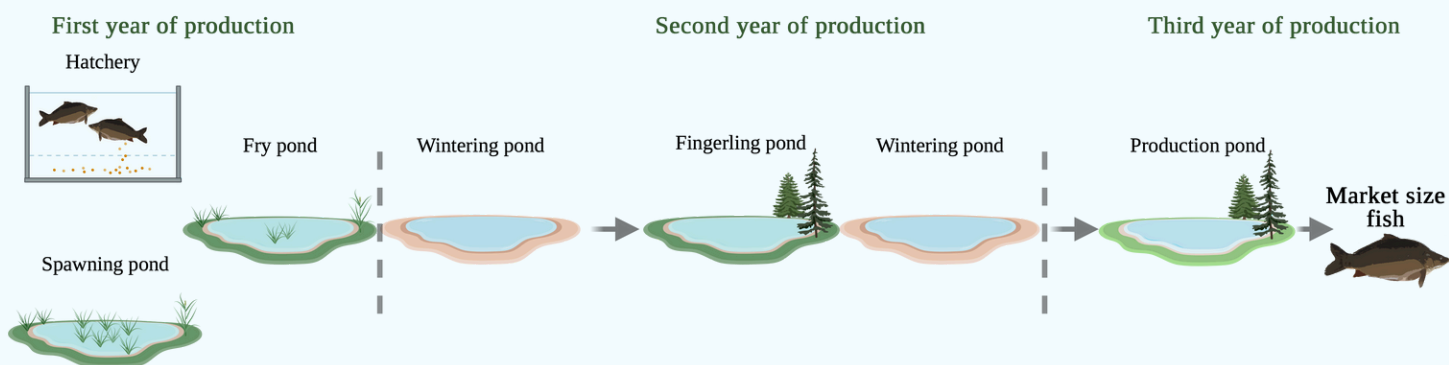
Recently, the common carp sector has been experiencing **water shortages caused by climate change**.

Common carp farming is highly sensitive to external factors including **unpredictable precipitation** (scale and frequency), **water quality**, and **extreme weather events**, from droughts to floods. The severity of isolated and cumulative impacts needs to be quickly assessed.

### 2. Deposited sediments during harvesting

To harvest the fish, ponds are seasonally drained, mobilising significant amounts of sediments deposited on the pond bottom during the production season, which have **adverse effects on water quality downstream of the farm**.

Our industry partner uses the Dubisch production method, demonstrated here:



# Proposed solutions

## S1A: Model and methodology for self-assessment of water availability

- Develop a **self-assessment model for water availability and quality** using current and historical data on carp production, water flow, and hydrochemical conditions

- Explore the **relationship between precipitation patterns and the production capacity** of the common carp sector

- Develop **site-specific strategies** for sustainable water management

## S1B: Upcycling of sediments

- Development of strategies to **upcycle pond sediments**

- Elaboration of **templates and recommendations** for monitoring, capturing, and reusing sediments

- Reduce adverse effects** associated with pond draining and limit the farm's **impact on downstream aquatic environments** during harvesting and fish relocation

Follow the project here:



[occamproject.eu](http://occamproject.eu)



OCCAM Project