



**VLAB** #3





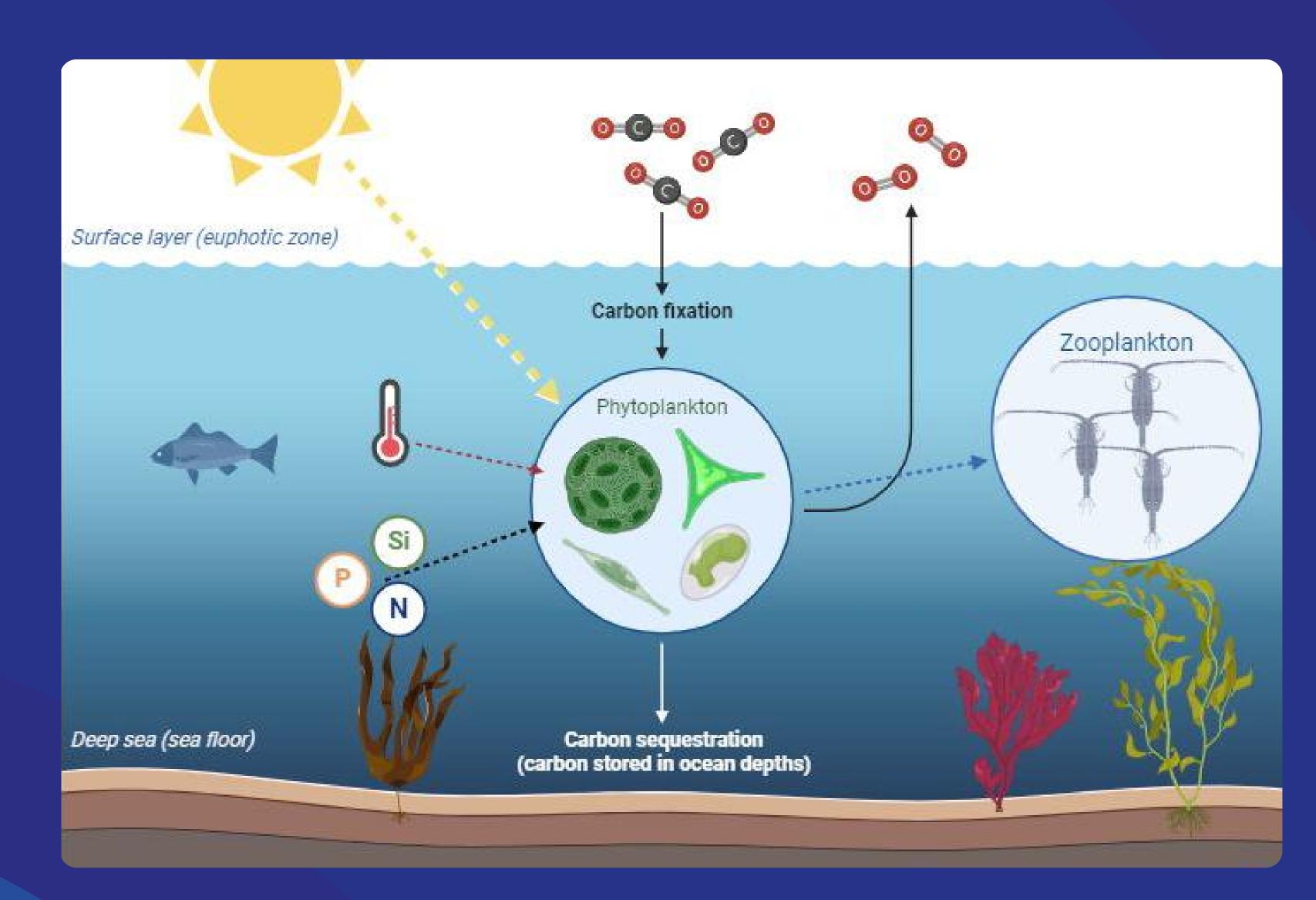






## INTRODUCTION

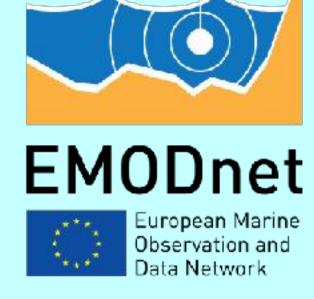
This VLab provides a service to analyze the relative contribution of the drivers in phytoplankton dynamics in the Belgium part of the North Sea and the northern Adriatic Sea. The Nutrient-Phytoplankton-Zooplankton-Detritus (NPZD) model is built using data containing phytoplankton and zooplankton abundances, nutrients (nitrogen, silica and phosphor), and carbon data (dissolved inorganic carbon, air-sea carbon flux). This model helps to understand the spatio-temporal variations of plankton dynamics and to determine whether they act as a carbon sink or source.



## **METHODOLOGY**

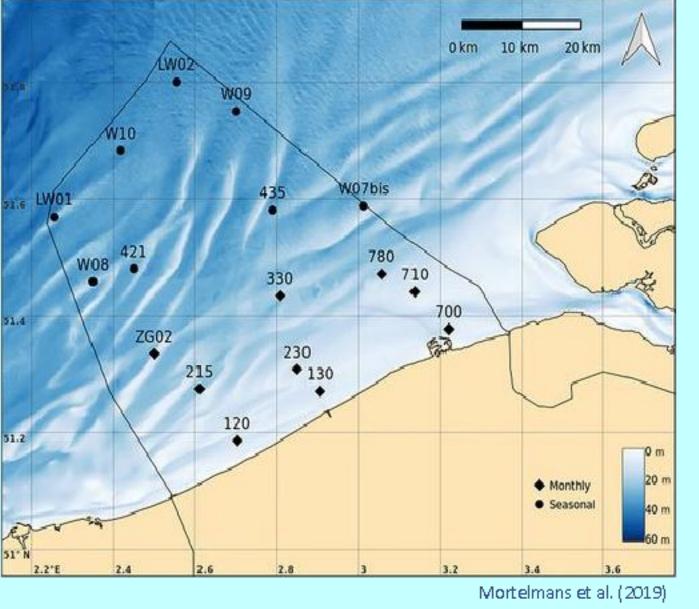
## DATA

Nutrients (DIN,PO<sub>4</sub>, SO<sub>4</sub>) Carbon (DIC, pCO<sub>2</sub>) plankton density Temperature

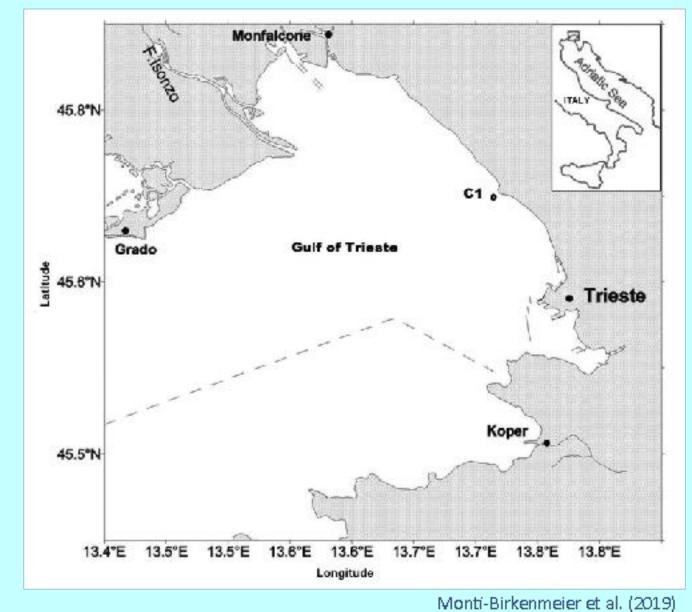








Belgian Part of the North Sea

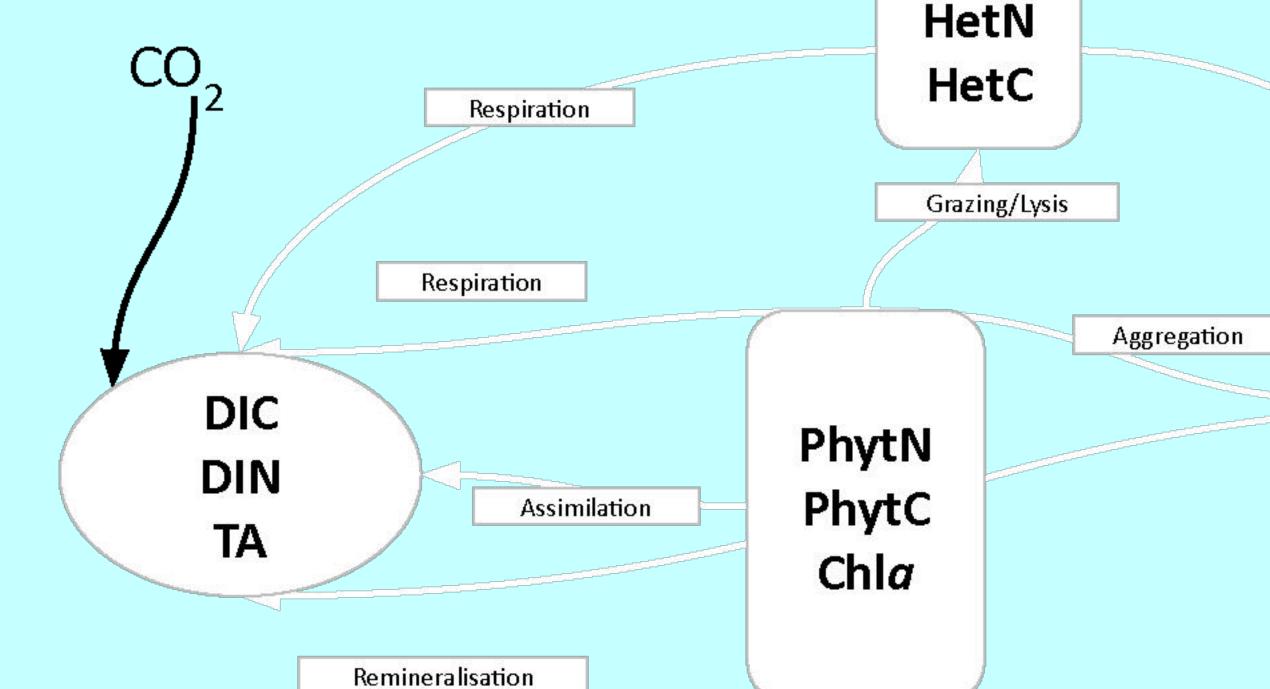


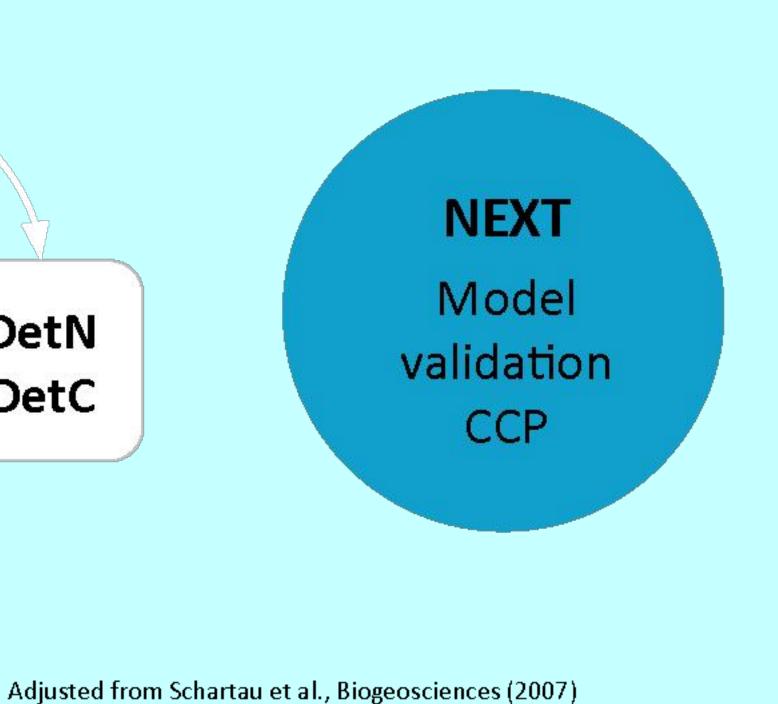
Gulf of Trieste – Adriatic Sea

## Nutrient-Phytoplankton-Zooplankton-Detritus Model

























DetN

DetC

