ACT on Offshore Monitoring

https://actom.w.uib.no

***WP1 BASELINE (Abdirahman Omar, NORCE-Climate, Sigrid E. Schütz, UiB-Law)**: Monitoring the marine environment.* Will survey the regulatory requirements and opportunities and technical limitations laying the foundation for the marine monitoring program. This activity will underpin the other WPs, providing the necessary information on what level of assurance is expected from a monitoring program, alongside the present capabilities of marine measurements and monitoring.

***WP2 DIGITAL (Jerry Blackford, PML)**: Design and build of the pre-operational web toolkit.* Will be responsible for building the toolkit based on verified algorithms for detecting weak signals in a highly variable environment and designing monitoring programs.

***WP3 RESPONSIBILITY (Dorothy Dankel UiB-BIO, Sigrid E. Schütz, UiB-Law)**: Responsible CCUS monitoring process*. Will study how the monitoring program can be used to communicate risks and benefits of subsea storage, and as a tool for public engagement through the Responsible Research and Innovation (RRI) framework.

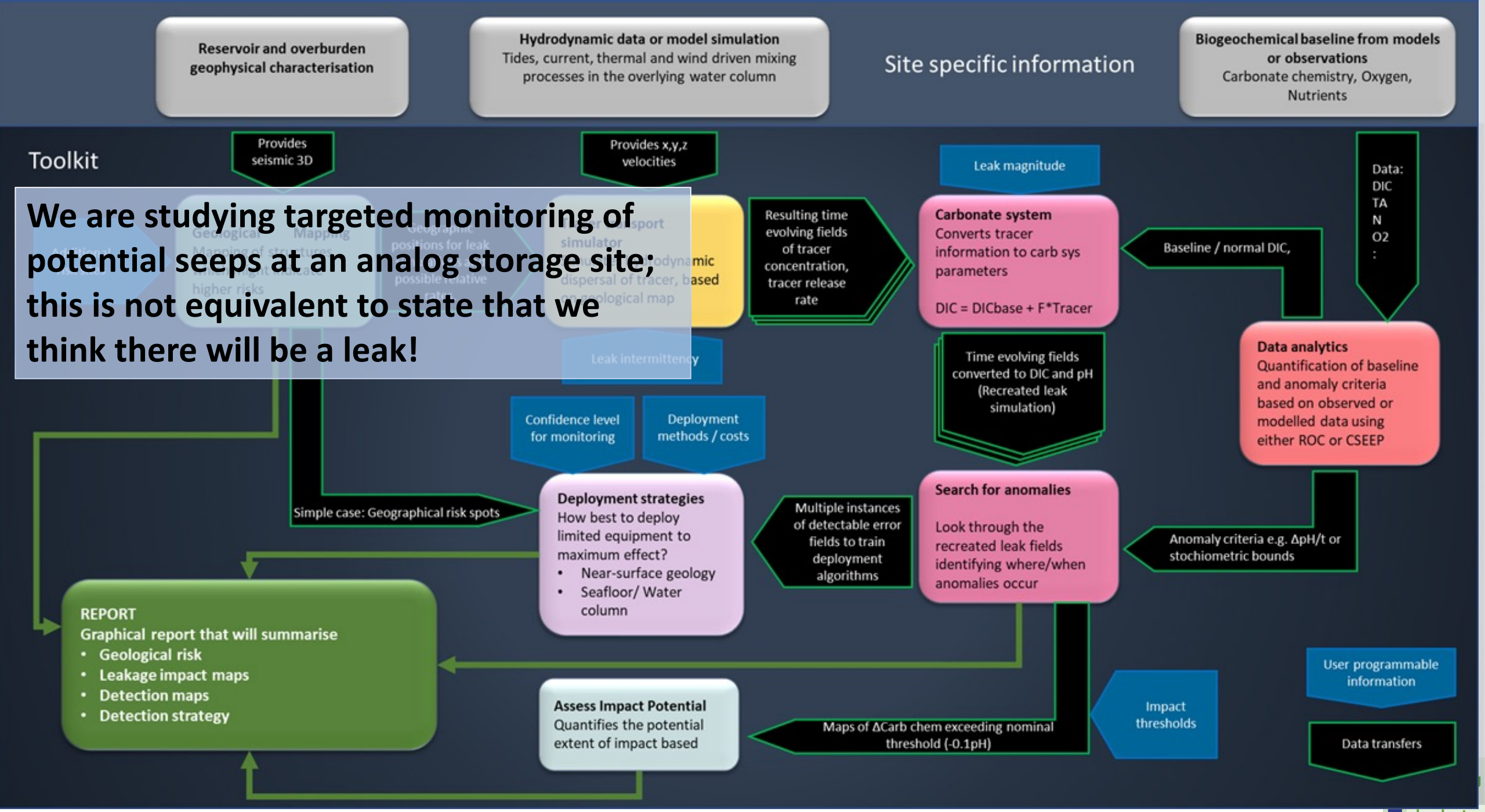
***WP4 IMPACT (Sarah Gasda, NORCE-energy)**: Scenarios and site studies.* Will utilize the web toolkit built in WP2 and the knowledge learned in WP3 to study policy scenarios and demonstrate the toolkit on the P18 and Smeaheia storage sites as well as study sites in the Gulf of Mexico.

***WP5 INTEGRATION (Guttorm Alendal, UiB-MATH)**: Dissemination, reporting and coordination.* Assure easy communication in this highly cross-disciplinary project, both in the core project group, in the extended collaboration group, and beyond the project. Responsible to periodic reporting to ACT.

- Advisory board.
  - Philip Ringrose, Equinor
  - Marcella Dean, Shell
  - Eva Halland, NPD
  - Tim Dixon, IEAGHG
  - Jun Kita, MERI
  - Gloria Thurschmid, EBN
  - Charles Jenkins, CSIRO
  - Sallie Greenberg, ISGS

Acknowledgements

This project, ACTOM, is funded through the ACT programme (Accelerating CCS Technologies, Horizon2020 Project No 294766). Financial contributions made from; The Research Council of Norway, (RCN), Norway, Ministry of Economic Affairs and Climate Policy, the Netherlands, Department for Business, Energy & Industrial Strategy (BEIS) together with extra funding from NERC and EPSRC research councils, United Kingdom, US-Department of Energy (US-DOE), USA. In-kind contributions from the University of Bergen are gratefully acknowledged. Anna Oleynik is funded through the Academia agreement between Equinor and the University of Bergen.



We are studying targeted monitoring of potential seeps at an analog storage site; this is not equivalent to state that we think there will be a leak!

Reservoir and overburden geophysical characterisation

Hydrodynamic data or model simulation
Tides, current, thermal and wind driven mixing processes in the overlying water column

Site specific information

Biogeochemical baseline from models or observations
Carbonate chemistry, Oxygen, Nutrients

Toolkit

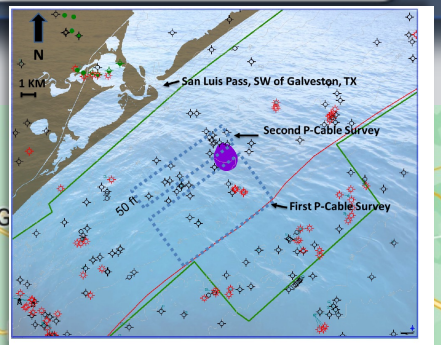
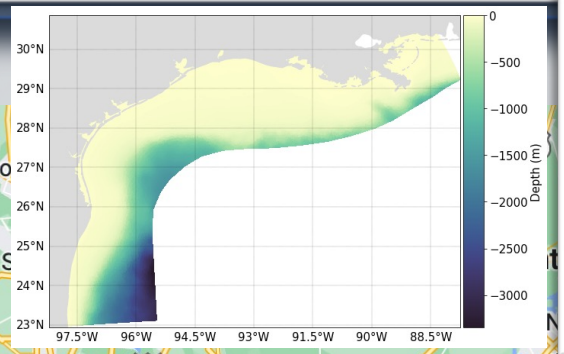
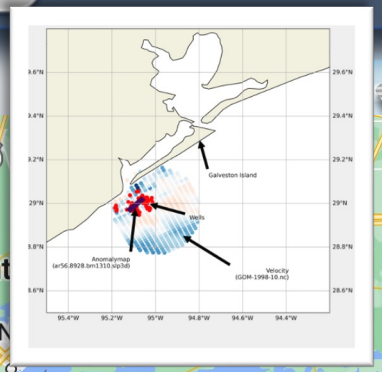
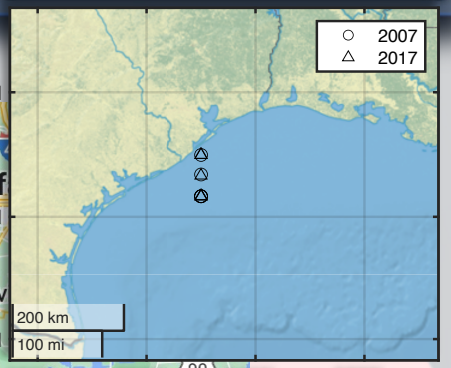
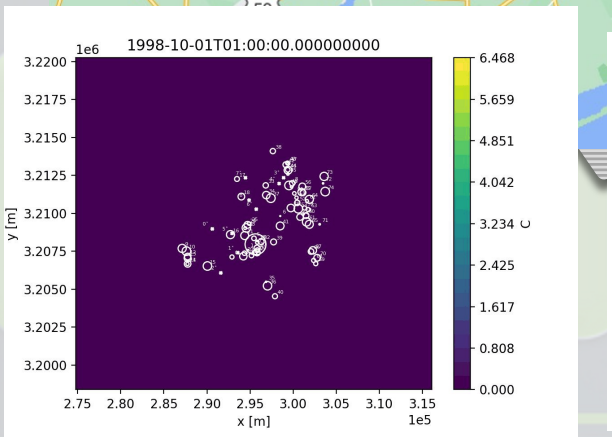


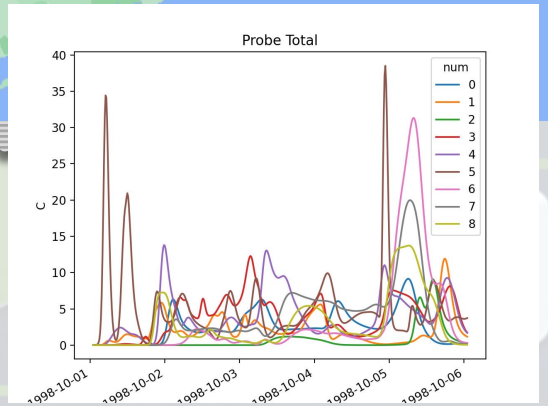
Figure 1: Data was acquired over the San Luis Pass Salt Dome Southwest of Galveston, TX

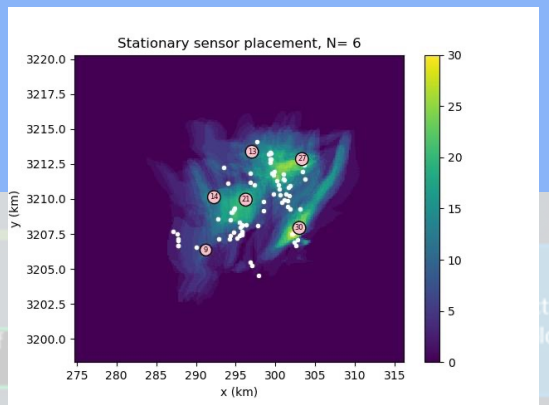


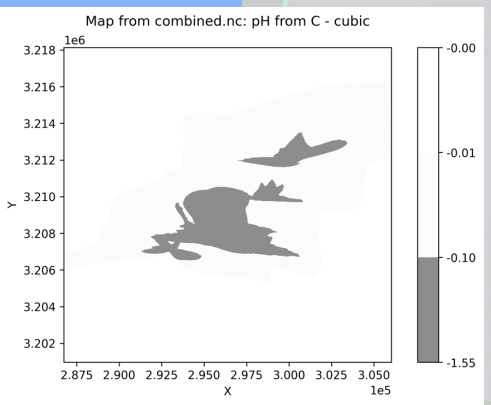












Accelerating CCS Technologies

The site studies

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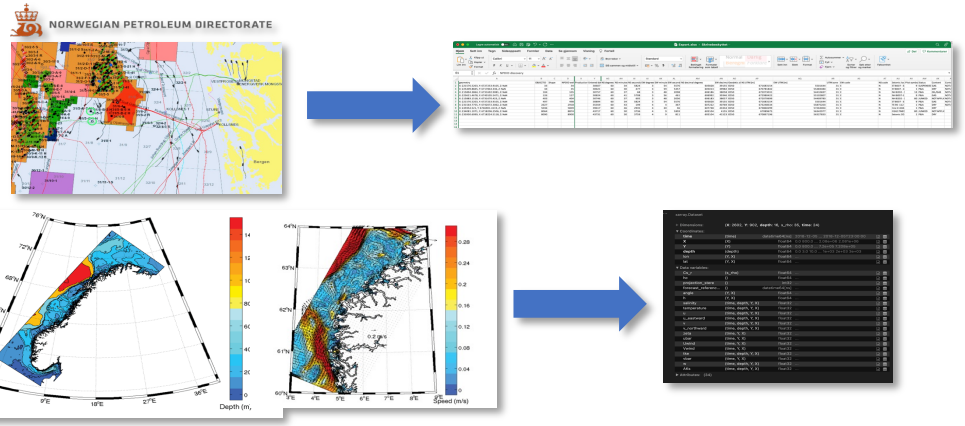
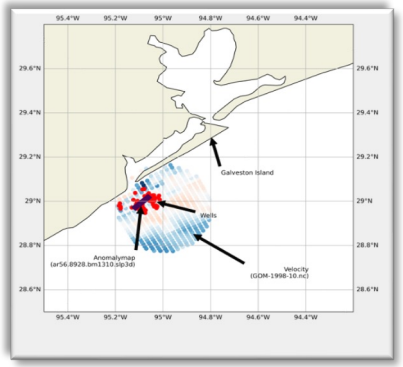
Norwegian site



Need: biogeochemical baseline from the sea-floor.

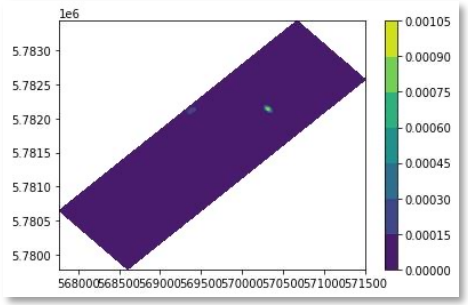
Gulf of Mexico



Fine tuning of scenarios

Need: Higher frequency biogeochemical baseline from the sea-floor.

P18



Geological map in place

Need: velocities and biogeochemical baseline

UK site: TBD

16th International Conference on Greenhouse Gas Control Technologies

ghgt-16