

# SCE4006 Project

**Title:** Development of a database system for environmental and public health information

**TUC supervisors:** Nils-Olav Skeie and Hans-Petter Halvorsen

**External partners:** Tel-Tek, Telemark Hospital - Department of Occupational Medicine, and Porsgrunn municipality.

## **Task background:**

Like other municipalities in Norway Porsgrunn municipality must implement actions to reduce the influence of climate and environmental factors. One of these actions is collecting climate and environmental information to establish the factual basis (base line), both in terms of the current situation and the effects of the planned actions. The Porsgrunn municipality wants an overview / status of greenhouse gases and pollutants in the Grenland area and wants this information to be available online.

A factual basis will have two main functions:

- Provide a factual basis for policy choices and implementation of actions,
- Information for residents in the municipality.

A factual basis will form the basis for annual updates / accounting of greenhouse gases and pollutants. Such an overview will serve several purposes like:

- Describe the current situation, and changes and trends over time,
- Highlighting the results of measures to reduce emissions of greenhouse gases and pollutants local / regional / national items organized by industry,
- Be open, easily accessible and high-quality information to the population and decision makers,
- Being a starting point for the choice of measures for decision makers,
- Be a foundation that can provide base for new industry, research and development.

## **Task description:**

The main part of the project will be to develop a database with a flexible structure with good import and export features.

The tasks of the project will be:

1. Overview of the type of information that should be part of such a system,
2. Evaluate technologies for WEB solutions, both licence and open-source solutions,
3. Modelling of the database,
4. Evaluate the availability of the database information,
5. Develop WEB based export module,
6. Evaluate different methods for data import,

7. Quality assurance of the information before importing into the system,
8. Develop WEB based import module.

**Student category:**

Combination of one EET student and three to four IIA students.

**Practical arrangements:**

Cooperation with Tel-Tek and Telemark Hospital for the information into the system.

**Signatures:**

Supervisor (date and signature): .....

Students (date and signature): .....

Students (date and signature): .....

Students (date and signature): .....

Students (date and signature): .....

Students (date and signature): .....