



Future on Paper

Permit to pollute

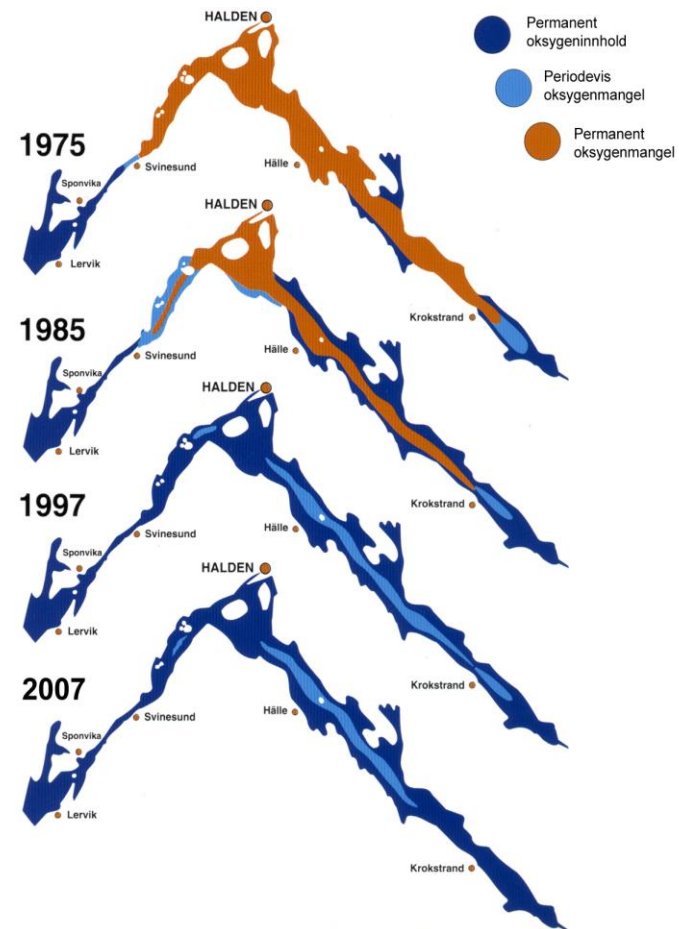
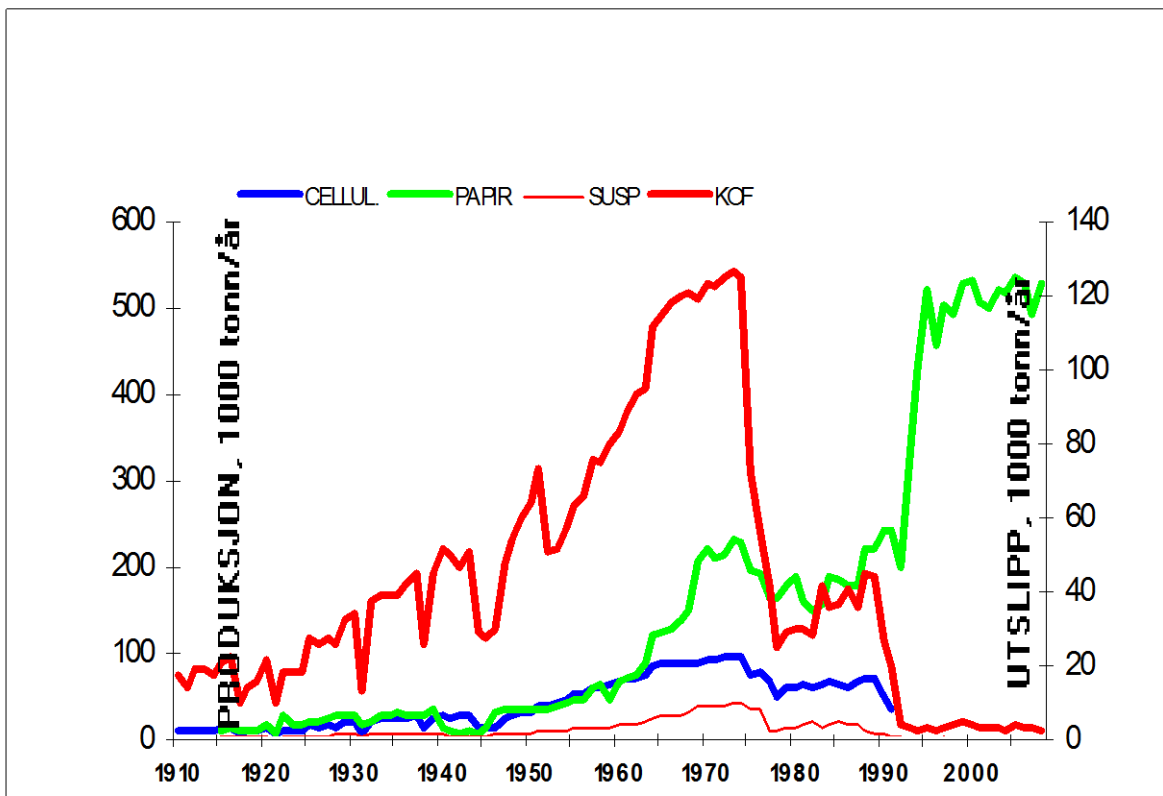
Visit from Miljodirektoratet with Polish counterpart

12.06.2014

Background

- Saugbrugs has a long history (1859)
- The recipient has limited sustainability if over polluted
- The recipient was in an unacceptable condition in early 1970
- Unilateral demand from the Norwegian authorities to Saugbrugs to reduce emissions.
- Saugbrugs started environmental investments, and the emissions were reduced
- Continuous improvement on the emission side towards 1980.
- Management acceptance to take responsibility and reduce emissions down to an acceptable level for the recipient.

Changes in the Iddefjord bottom life



Permit of 2003

- The first application according to IPPC inside Norwegian Pulp and Paper Industry
- Started preparing the application in 2000
- Application sent 29th June 2001
- During this period approx 5 million Norwegian kroner plus internal manpower were spent.

Studies and reports

- **BAT-analyses:**
 - What is obtainable
 - Technical analyses
- **Emission to water**
 - Components
 - Volume
 - Ecotoxicology
 - The Recipient
 - Cleaning technology
- **Emission to air**
 - From the process (Odour, Plumes)
 - From energy production (NO_x, SO₂, etc)
 - Cleaning technology

Studies and reports

- Waste
 - Types
 - Disposal of waste
 - Use of waste
- Noise
 - Mapping of sources
 - Noise at neighbours
 - Road noise
 - Harbour noise
- Emergency preparedness
 - Risk analyses
 - Chemicals
 - Environmental risk analyses
 - Dimensioning of Emergency response unit

The Process

- During the years the respect between the authorities (KLIF/MD) and Saugbrugs has developed to be a trust between partners with the goal of being able to produce paper without harm to the environment.
- During the process of making the application and during the evaluation process in MD/KLIF, a number of meetings were held between the two parties to ensure mutual understanding of problems and arguments.
- When KLIF/MD made their final decision, they were sharpening up some of the proposals from Saugbrugs.

The Permit

- MD has given you a presentation of the contents yesterday?
- Emission limits given from 2003
- Sharpened emission limits from 2008
 - COD (Water)
 - NOx (Air)
 - Noise
- The sharpened limits made it necessary with investments.

Investments towards 2008

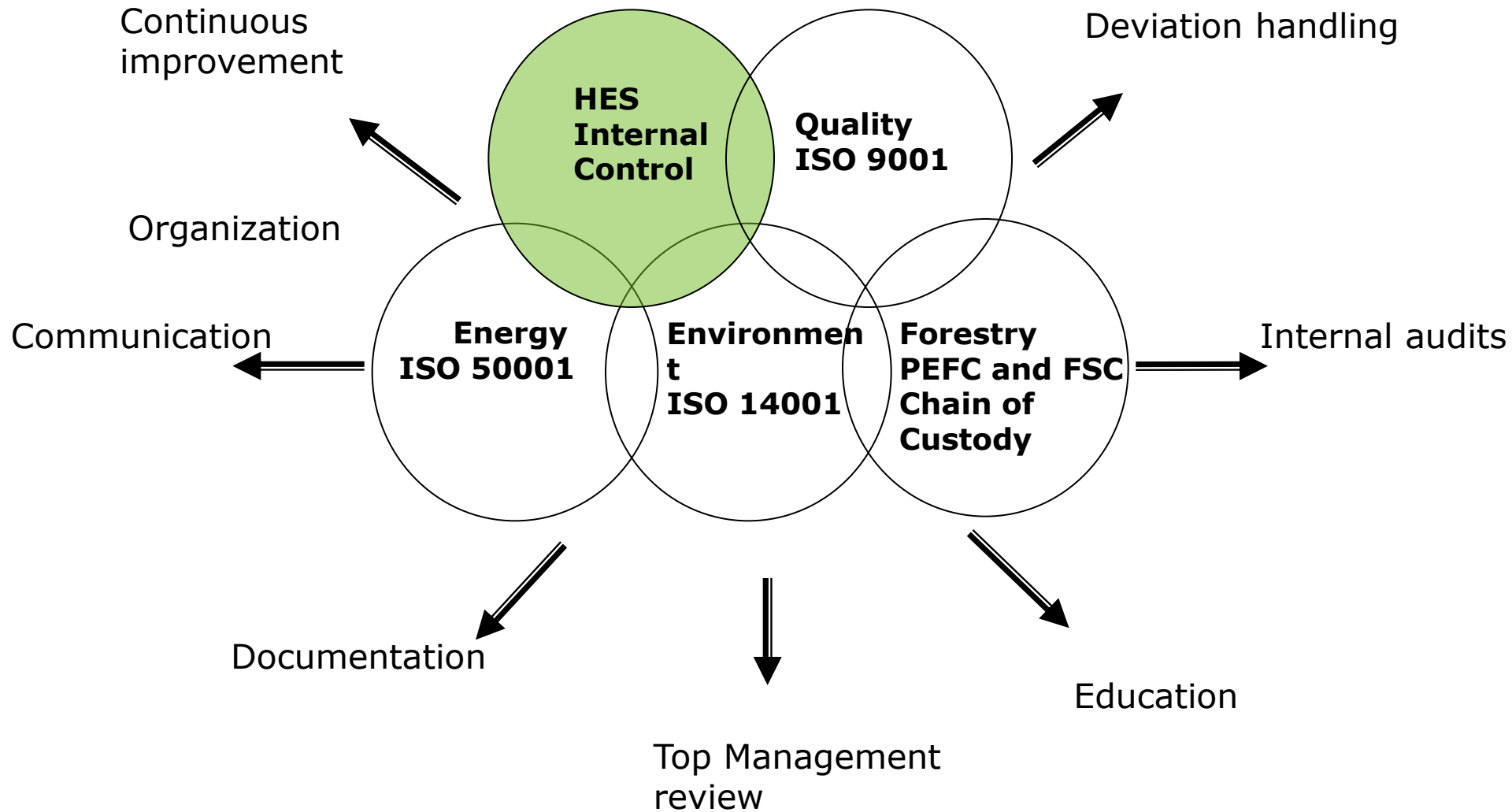
- Various rebuilds in production area in order to reduce COD load 33 mill NOK
- Rebuild of Boiler 3 to reduce NOx 14 mill NOK
- Various activities to reduce noise 2 mill NOK

Daily follow-up

- Management system
- Targets
- Measurements and analyses
- Management follow-up
- Improvement
- Contact with MD

We will come back with more details on these items

Certified management systems Saugbrugs



Today's situation

- Well managed environmental system
- All permit parameters under control
- Good relationship with the authorities
- Acceptance in all levels in the organisation on environmental responsibilities.
- A recipient in balance

Large flows with process water and energy

It is impossible to become energy efficient without having a good environmental performance !!!

