Analysis of symbiosis potential in Chablais region
Under supervision of Laetitia Carles (SOFIGÉ), Benoît Charrière (SOFIGÉ) and Suren Erkan (EPFL-Unil)

Objectives
This project is part of AgeRegion’s initiative for development of industrial ecology in Chablais. Its objective was to develop an analysis of the potential of industrial symbiosis on the scale of the region Chablais, by giving a comparison with similar international eco-industrial parks, where symbioses already exist.

Methodology
Stage 1. Analysis of present economic sectors in Chablais
Stage 2. Inventory of international industrial symbiosis
Stage 3. Critical analysis of SATOM – Tamoil symbiosis

Economic context
Chablais economic sector: various, mostly industrial. Solid waste management site, oil refinery, water and energy supply site, chemical industry, construction materials sites and a couple representatives of food industry. Most important industrial actors of the scene:
- SATOM incinerator
- Oil refinery Tamoil
- Water and energy supply organization CIMO

Identification of relevant international experiences
149 existing or planned eco-industrial parks studied:
- Europe 53
- South-East Asia and Oceania 34
- North America 62
2 questions to determine relevance:
- Who are the main actors of the park?
- Which exchanges of heat and steam flux already exist?
Selection of the 10 parks presenting most similarities with Chablais (red points):
Kalundborg (Denmark), Schkopau (Germany), Rotterdam (Netherlands), Ummahal (Finland) and Jyväskylä (Finland), Ulsan (South Korea), Guyama (Porto Rico), Kwinana (Australia), Map Ta Phut (Thailand) and Bruce Eco-Ind. Park (Canada).

Conclusion
The symbiosis between Tamoil’s oil-refinery and SATOM’s incineration plant is located in a promising dynamic and varied industrial estate for the future establishment of multiple partnerships around them and the chemical site of Monthey.

We identified 10 relevant experiences around the world, which characteristics could inspire the development of the industrial park in Chablais. The famous eco-industrial park of Kalundborg and also the one in Ulsan, South Korea, were noticed as particularly pertinent.

Two main potential improvements were drawn. 1. Find a way to generate steam which properties match better TAMOIL’s requirements. SATOM is actually planning to change its turbine to make it.
2. Enhance communication about this outstanding partnership, which should encourage the development of industrial ecology in Chablais region.