

Bottom-up Model of the Swiss Industrial Sector & Database of Energy Efficiency Measures

Introduction

- In the context of the Swiss Competence Centre for Energy Research on the Efficiency of Industrial Processes (EIP) we are studying current energy use in the Swiss industry sector as well as energy efficiency measures which could be implemented.
- Our two main objectives are:
 - Develop a database containing a set of energy efficient measures up to 2030, to reduce:
 - Thermal energy demand and
 - Electrical energy demand
 - Develop a bottom-up model to simulate the current and potential future energy use of the industry sector in Switzerland.

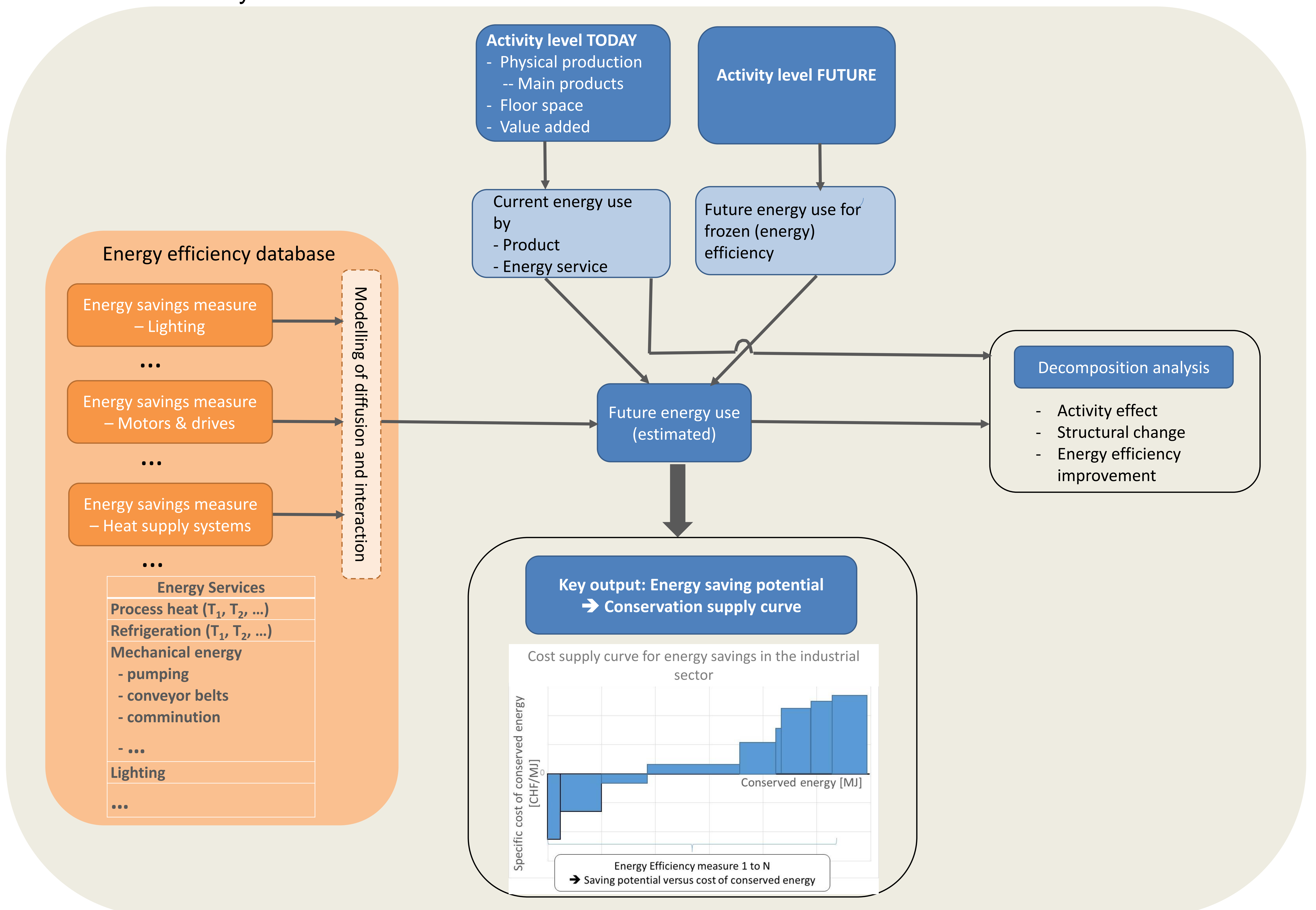


Figure 1: Database and Bottom-up model of the Swiss industry sector

- The energy efficiency database includes three aspects:
 - Technical → Technology-specific data, i.e. energy efficiency, technical lifetime, scale, etc.
 - Cost → Investment costs, energy costs, operation & maintenance costs, etc.
 - Market → diffusion at $t = 0$, max. technical, max. economic, max. market diffusion

We are developing an energy efficiency supply curve for the industrial sector. This will serve as basis to assess energy saving potentials in the local context and to design new policies aimed at significant energy savings.