

EPOS WP 2 – Sector analysis

Lead: Cemex Research Group AG

Sector reports on data collection

D 2.4

École Polytechnique Fédérale de Lausanne (EPFL) & Cemex Research Group AG (CEMEX) September, 2016





Summary

WP2 aims at data collection and processing per sector in order to set a common baseline for each process industry and to provide a harmonised sector blueprint for further improvement via cross-sectorial symbiosis. The main focus in this WP is on building data capacity and knowledge per sector, setting a common sector reference, mapping the needs and prospects for clustering, drafting the potential for cross-sectorial symbiosis and selecting the key performance indicators (KPIs) to reach this goal.

Deliverable 2.4 is the result of the actions described in task 2.1: 'Analysis of lead sites' and the related subtask 2.1.1: 'Data collection'. This subtask was dedicated to gather data from all industrial partners. In the first iteration, all industry sites have prepared and sent plant outlines to harmonise the data collection process. In a next step all industrial partners have started a first data acquisition phase, based on:

- Available energy studies and audits
- Previous reports on resource efficiency and industrial symbiosis opportunities
- Analysis of SCADA information & systematic data clean-up
- Interviews and data gathering from site storage drives
- Raw materials composition and energy use monitoring
- Equipment capacities and normal operating parameters
- Analysis and definition of site-specific KPIs
- Identification of main energy consumers
- and others

This effort resulted in a first list of data and parameters (measurements and calculations) for each site. The list was reviewed by the universities to check its comprehensiveness for further use in the EPOS tool. A global list was approved containing measurements from about 6000 sensors gathered from all EPOS lead sites.

As expected, the final databases are different per sector due to the realities met at each site. However, it was taken into account that

- 1) the solutions are as much as possible transferable to other sites in the same sector (to be tested at the EPOS satellite sites of each sector company) and
- 2) all solutions are in a format that can be read by the EPOS tool.

In this way, the list of data gathered per sector serves as a base for the later EPOS tool (WP3) and for the sectorial and cross-sectorial KPIs (T2.3, D2.1).