



Recovery and utilization of gaseous industrial effluents in the chemical sector

The European Union is aiming at decreasing its greenhouse gas emissions while stimulating the economic growth and increasing resource efficiency. Since there is a growing need of using more sustainable alternatives for fossil feedstocks, the European Commission's Executive Agency for Small and Medium-sized Enterprises has launched a project with special emphasis on facilitating the recovery and utilization of gaseous industrial effluents (GIEs).

The consortium consisting of Ecofys – A Navigant Company, TNO, Sheffield University and WAAT aim to develop a **Roadmap on the recovery and utilization of gaseous industrial effluents** in which the opportunities for recovery and utilization of GIEs in the European Union will be explored in detail. The Roadmap will focus on emissions that are produced in industrial installations, where recovery and utilization could well be possible, and for which in some cases future reduction targets apply.

Gaseous industrial Effluents

Gaseous industrial effluents are gases that originate from various processes as effluent gas from energy intensive industries, such as power, chemical, steel or cement. These gases represent a large range of substances, from which the ones with the largest volumes are CO₂, CO, NO_x, and SO_x.

In the past months, the consortium worked on the assessment of the **potential for the recovery and utilization of GIEs**. This assessment was based on the mapping of the current availability of GIEs throughout the European Union and the techno-economic and environmental assessment of potential technologies for recovery and utilization of these gases.

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Based on the availability of the GIEs, the proximity of the chemical industry and the existence of potential business cases, ten hotspots were selected and described in more detail. From these hotspots, four **Model Demonstrator Regions** are selected to further explore and enhance the potential and understanding of recovery and utilization of GIEs. In these four regions, workshops will be hosted. Based on the experiences from the regions, the needs to stimulate the deployment will be mapped.

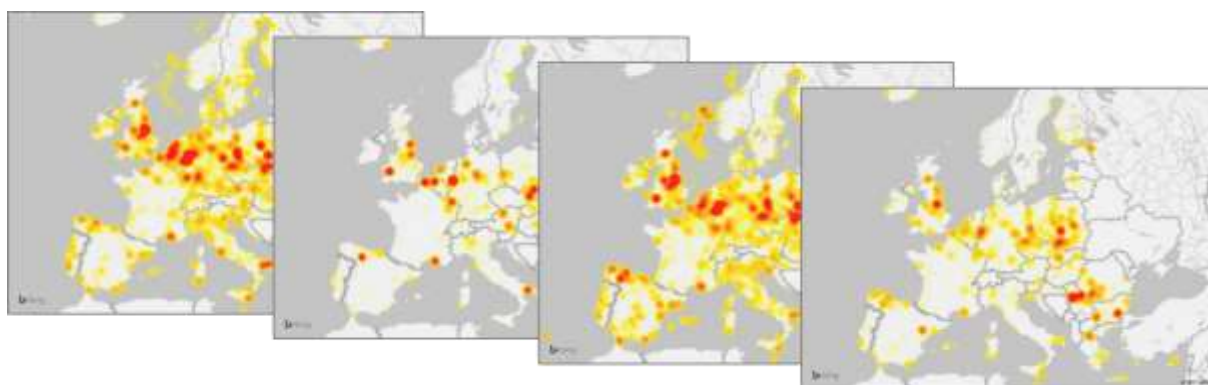


Figure 1. Impression of the mapping of the current availability of CO₂, CO, NO_x, and SO_x throughout the European Union

To assess your own region's potential for the recovery and utilization of GIEs, a web-based Self-Assessment Tool (SAT) have been launched. The SAT is available on the EC website via: <https://ec.europa.eu/growth/gie-self-assessment-tool/>.

Furthermore workshops have been facilitated in 4 Model Demonstrator Regions (Lodz, Varna, Limburg, Antwerp).

Gained insights will be disseminated through a conference on 27 September 2018 in Brussels, and a roadmap on the Recovery and utilization of gaseous industrial effluents will be prepared.

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More information

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