



Photo: Laatzeeelandzien.nl

Smart Delta Resources



Smart Exchange of Resources in the Delta Region

The ultimate business initiative realising regional industrial symbiosis!

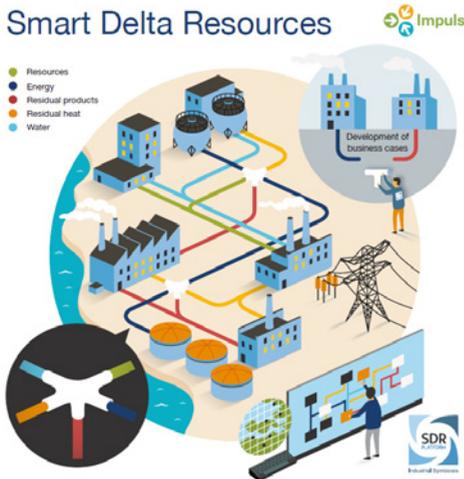
The Smart Delta Resources (SDR) platform is a partnership between eleven large energy and raw material consuming companies in western North Brabant, Zeeland and North Flanders provinces. This unique platform develops business cases for exchanging energy and material flows, also referred to as industrial symbiosis. The platform is designed to strengthen the international competitive position of the participating companies and to make the regional business climate more attractive, thereby contributing to sustainable growth of the industry in the region. Furthermore, this initiative is a significant contribution to realising the climate objectives, among others by reducing

greenhouse gases such as CO₂ and reducing the consumption of fossil fuels. The platform is actively supported by the Province of Zeeland and Zeeland Seaports, with NV Economische Impuls Zeeland as the facilitator.

Activities

- Identifying opportunities for exchange of energy and materials flows;
- Joint development and realisation of business cases (i.e. specific and profitable investment projects);
- Seeking collaboration for symbiosis with companies that are not yet participating;
- Attracting new business to the region.

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Approach

The region has a history of successful examples of industrial symbiosis. Examples include heat and CO₂ exchange from Yara to the nearby greenhouse area (WarmCO₂) and the transfer of Zeeland Refinery's residual heat to Martens Cleaning and COVRA. In an in-depth assessment phase, the SDR platform identified new opportunities to exchange material and energy flows. This resulted in a list of potential synergies. Feasibility studies for the most promising business cases are currently being conducted.



Example

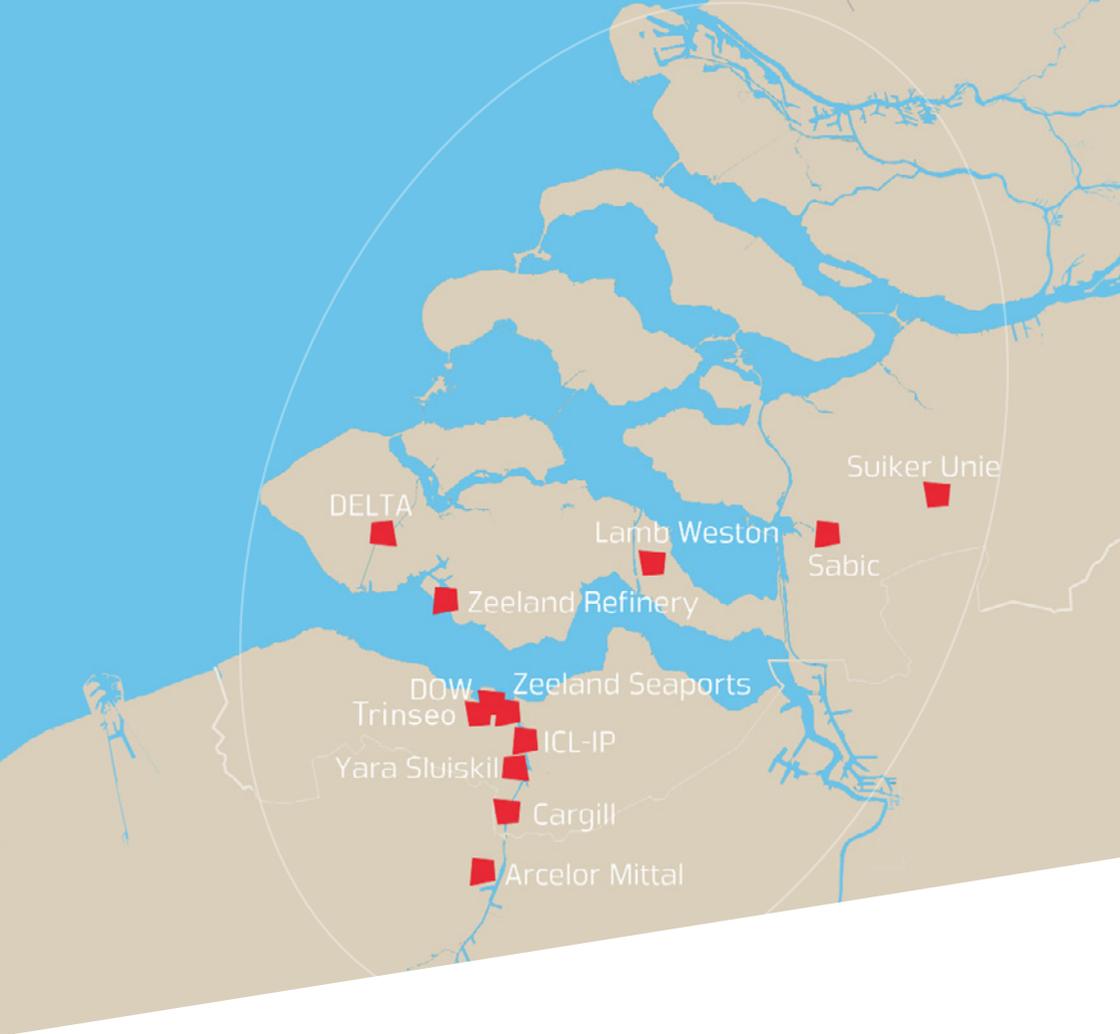
Symbiosis in hydrogen

Hydrogen is a by-product from Dow's naphtha cracker. The companies Yara and ICL-IP, on the other hand, require hydrogen as a resource in their production processes. Transporting the hydrogen through an underground pipeline offers a win-win situation for all those involved. A so-called Green Deal was signed for this business case on 14 March 2016, to support realisation.

Results:

- 4,500 tonnes of annual hydrogen exchange;
- 10,000 tonnes of annual CO₂ reduction;
- 0.15 PJ annual decrease in energy consumption, comparable with the average gas consumption of approximately 3,000 households;
- Annually, 320 trucks less on Zeeland's roads;
- Possible upscaling with both existing and new businesses.

Other examples of business cases of SDR companies include exchanging residual heat, salts, synthesis gas and chemical raw materials.



Further Information

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