



# Industrial Symbiosis

## Partnership background

The current 'take-make-dispose' mentality leads to waste and inefficient resource use. In Europe, the commercial value of materials sent to landfill is estimated at over €5 billion annually. Industrial symbiosis redirects waste streams and underutilised resources from one industry or activity to another.

The Industrial Symbiosis partnership, under the 3GF umbrella, brings together governments, companies, business and organisations to identify opportunities to turn one company's waste of materials, energy, water, expertise and assets into another company's raw materials. The Kalundborg Symbioses Centre, which is host to one of the world's first functioning industrial symbioses, holds key competences within the area of industrial symbiosis.

## Partnership achievements

The Industrial Symbiosis partnership has been successful in adoption (influencing policies and positions) and delivery (activity and implementation). A recent example is how the partnership successfully lobbied the G7 to establish a Resource Efficiency Alliance.

Since its launch in 2013, several national industrial symbiosis programmes have been initiated together with increased regional activity. In South Africa for example, the Western Cape Industrial Symbiosis Programme has delivered financial benefits, landfill diversion, CO2 emission reductions and potential for SME development and job creation. More than 300,000 tonnes of material have been moved up the waste hierarchy.

Industrial symbiosis is a solution ready to be scaled. It has been estimated by International Synergies Limited, the partnership hosts, that the potential global impact of large scale industrial symbiosis could be around US\$7,7 billion per annum from an annual investment of only US\$213 million.

## Role of 3GF

The Industrial Symbiosis partnership was launched at 3GF 2013. Since then, the 3GF has provided a convening platform for the partnership to gain access to new partners. At the 3GF Africa Regional Conference 2015 the successes of emerging industrial symbiosis activity in Africa were highlighted.

### The Global Green Growth Forum (3GF)

3GF is a Danish-led green growth platform implemented in partnership with other countries, private companies and international organisations.

A **key objective** of 3GF is to push forward public-private partnerships that can foster the development of new resource efficient solutions in areas which are critical to the green transition like water, energy, waste management, land use and food security. One such partnership is on Industrial Symbiosis.

### Sustainable Development Goals (SDGs)

The Industrial Symbiosis partnership is contributing to the proposed SDGs:

1. End poverty in all its forms everywhere
8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
13. Take urgent action to combat climate change and its impacts
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development