

## **Western Cape Industrial Symbiosis Programme (WISP): IMPROVING RESOURCE EFFICIENCY FOR BUSINESS WHILE CREATING COST SAVINGS AND NEW SALES**

In South Africa, the continued viability of businesses, the development of the economy and the potential for job creation are being challenged by rising input and energy costs. The mitigation of climate change is requiring industry to be more resource efficient, and reduce the carbon intensity of production processes. The Western Cape Government *Green is Smart* Strategy framework outlines major-user resource efficiency as an important action for the Western Cape Government. Therefore, the Western Cape Government Green Economy Programme has initiated the Western Cape Industrial Symbiosis Programme in the Western Cape (WISP) as a means to reduce resource constraints while simultaneously enhancing the growth prospects of businesses. The WISP programme is based on the National Industrial Symbiosis programme (NISP) that has been implemented very successfully in the United Kingdom (UK). The UK-based programme has demonstrated multiple benefits to business including: significant waste to landfill reduction rates, job creation, cost savings, and additional sales.

The WISP Programme is managed and implemented by GreenCape - the Sector Development Agency of the Green Economy in the Western Cape. WISP provides a

### **Example of a synergy facilitated by WISP**

Broken fishing nets are being exchanged between a Marine Fishing Company and the City of Cape Town (CoCT). The CoCT is using these fishing nets to make sports nets for schools and sporting facilities. It is expected that approximately 10 tonnes of fishing nets will be donated over the 2014 year. The amount in savings for the CoCT and other benefits will be calculated upon completion of the synergy.

free facilitation service connecting companies in order to identify and realise business opportunities enabled by using unused or residual resources (materials, energy, water, assets, logistics, expertise). WISP has the potential to make tangible contributions, achieving the objectives and overcoming the challenges listed above.

For example, one of the key resource efficiency measures enabled by an industrial symbiosis programme such as

WISP is the reuse of materials in the economy. This results in the reduction of waste, the need to exploit virgin materials, and create opportunities to add value to previously under-used or discarded resources. The example of a synergy between a Marine Fishing Company and the City of Cape Town (CoCT) is provided in the adjacent text box.

There are multiple ways in which this programme engages with industry, including Business Opportunity Workshops, individual company meetings, company site visits, as well as raising awareness at industry events. These methods have assisted the WISP programme in building a network of companies where under-utilised resources are identified, which have led to business opportunities for the companies involved.

There are many benefits to Industrial symbiosis, including:

- More efficient use of energy , leading to cost savings
- Reduction in waste sent to landfill
- Financial benefits, including cost savings and additional revenue
- CO<sub>2</sub> emission reductions
- Potential for SMME development and job creation

WISP has achieved great success over the last year, considering the limited operation period to date. Through identifying resources and matching them with companies, the facilitated process requires active involvement and management of the resources and synergies identified, building business cases for member companies, maintaining relationships, assisting companies with implementation of synergies, creation of completed synergy case studies for member companies and reporting on the impact of the programme.

Through this work the WISP team have:

- Built a network that consists of 108 companies in the first year of the programme
- Identified a total of 589 resources and 1205 potential synergies between companies
- Completed 11 synergies

Within these 11 synergies, the following benefits have been achieved at company level:

- R2.93 million in additional sales
- R2.65 million in cost savings
- 56 tonnes of landfill diversion
- 1820 MWh/annum has been saved in energy
- R100 000 in private investment has been directed towards the WISP programme

The one-year WISP pilot can be regarded as a success both in its execution and in terms of the positive impact it is having on Western Cape businesses in terms of financial benefits, landfill diversion, CO<sub>2</sub> emission reductions and potential for SMME development and job creation. In addition, WISP has contributed significantly to building a foundation for a successful South African national industrial symbiosis programme, through the development of practical methodologies and tools, building an evidence base of successful facilitated resource exchanges in South Africa as well as strategic support to other provincial and national entities. The WISP network will continue to expand over the coming year, with the primary goals of the programme focusing on: business network development, potential synergy identification and synergy realisation. The network will also diversify to include the West Coast, Cape Winelands and other regions.

*This executive summary was adapted from GreenCape's annual report. If you would like the full report please contact us via [110Green@westerncape.gov.za](mailto:110Green@westerncape.gov.za)*