

Cyprus shows the way in waste processing

THE PEOPLE of Cyprus possess many traditional skills but have always adapted quickly to change and grasped new opportunities, demonstrating their innovation and entrepreneurship. The green economy sector represents a real source of growth and export opportunity. In this regard, Cyprus provides an excellent example, certainly in terms of recycling and waste management, and in many aspects, they are leaders in the field. There are some strong businesses now engaged in the enterprise and recycling represents a major export activity for the country.

This article focuses on some examples of companies involved and seeks to provide insight into their operations and the innovative approaches being taken. Further information is also obtainable from the various company websites cited. The collection, processing and export of waste also create business and trade opportunity and those engaged in this activity in Cyprus are certainly showing the way. These are exciting times for the recycling and waste sector in this country.

Taking value from packaging waste

Cyprus Environmental Industries (www.ceirecycling.com) has a commercial facility for receiving and processing waste located close to Nicosia. The original business was established in 1989 as a waste management company targeting the paper industry, including the import and trading of pulp paper. Its business is now much broader based and one of the largest in Cyprus for waste paper and plastic recycling and export.

It collects packaging materials and plastics from a wide range of industrial sources such as printing houses, factories and shops.

Such material is sorted in a fully equipped plant and then these are separated into different categories. Non-recyclable material is removed and the final product is compressed into bales for export.

The company has an additional facility close by which sorts and processes public waste on behalf of Green Dot (Cyprus) Public Co (www.greendot.com.cy). The latter is a non-profit making organisation responsible for the collection and treatment of household packaging comprising paper, glass, plastic bottles, metal packaging and Tetra Pak material. Green Dot pays for this service and then exports the processed material, except the glass which is used by the island's cement factory. Cyprus Environmental Industries is able to issue a certificate of recovery for paper and plastic which cover all the relevant legal obligations of the waste producer or importer and exports these products internationally with particularly strong markets currently in Indonesia and China.

Recycling commercial waste

Barracuda Intertrade (www.barracuda-cy.com) is a very established business which today operates across a wide spectrum of consulting and trading activity as well as the management and exporting of recyclable materials.

They have a commercial facility close to Limassol and have been licenced since 2003 to collect and process paper, packaging materials, plastics, metal and Tetra Pak.

The company is a very large player in the export of packaging material and paper and continues to invest in upgrading and expanding their local and international markets for all their products. They pay particular attention to the grading of all their processed waste to ensure that the export value is maximised. Their exports of paper, plastics, metal and Tetra Pak are packed into

bales or bundles according to different grades and to meet the needs of their wide range of international clients.

Technoplastics (www.technoplastics.com.cy) offers an interesting example of creating a secondary recycling business from its original core activity producing a variety of household, industrial and agricultural products. They initially started their enterprise taking back damaged crates from their farming customers and crushing and reprocessing them into new for resale, both in Cyprus and for export.

They have been so successful that they have now expanded this aspect of their business to include the recycling of imported used crates and plan further growth in this aspect of their business as well as developing export opportunities.

the material is homogeneous and chemically accurate.

Epiphaniou Scrap Metals (www.epiphaniou-scrap.com) operates from four sites across Cyprus processing all types of metal, ferrous and non ferrous and including alloys of these as well as nickel items such as stainless steel.

More recently the company has developed recycling of plastics, especially domestic appliances and scrap computers. It is also a highly respected and established trader for such materials, operating in the international market, and has strong relationships with recycling companies globally but especially in Europe, Africa and Asia. They emphasise quality and are Gold Members of the Bureau of International Recycling as well as holders of the Cyprus Export Award for industry.



The scrap metal business

Economides Metal Recycling (www.economides-metal.com.cy) source, separate, process and then export ferrous and non ferrous materials. Antonis Economides followed his father collecting scrap on a local basis and has now modernised and expanded the family business to operate across Cyprus and be one of the largest of its kind.

Antonis believes that key to their success is correct investment in both equipment and people to ensure the highest quality processing and grading of the recycled material.

They also put much time into market research together with building and developing their international client base so as to maximise the value of export products.

Currently they export some 55,000 tonnes of metal and continue to expand rapidly.

They are very market driven and hold all the relevant accreditations, demonstrating their commitment to quality and service at every stage. Significant related business is both the marketing of salvaged spare parts from cars for export to key outlets such as Dubai and Egypt and also a facility which produces de-oxidant aluminium and alloys in ingot or pyramid form again for export.

The latter was the first and still the only secondary aluminium producing company in the country. Classification sampling is done to establish the spectrometric profile of the available material and final acceptance testing is undertaken during casting to ensure

The Epiphaniou group of companies is family owned and was established in the 1950s. It operates widely across the construction sector.

Epiphaniou Scrap Metals started in 1967 and currently processes some 50,000 tonnes of scrap metal per year making them the principal players in this activity together with Economides Metal Recycling.

They have two processing sites in Nicosia and Limassol and have ambitious plans for future expansion and investment.

Export markets for their processed metal and plastics are principally in the Far East and China, but also include such countries as Germany and Holland.

A pioneering approach

HTZ Minas Recycling Corporation (www.hellenictzialis.com.cy) is a business resulting from the merger of the waste activities of Hellenic Tzialis (Cyprus) and the group of companies known as Minas Recycling.

The latter was the first recycling business established for Cyprus in 1976, a truly pioneering approach and initially recycling glass bottles both from Cyprus and imported sources. The business quickly grew and diversified into other forms of commercial waste. It is an established leader in its field.

The merger brings significant opportunity for growth and the new corporation has ambitious plans for expansion building on its improved resource base.

The activity is already diverse with, in addition to glass, the sorting and processing of plastic crates, Tetra Pak type foils, paper and packaging materials.

HTZ Minas Recycling Corporation also is involved in the management of hazardous waste and, recently, they have introduced to their portfolio the collection and recycling of waste electrical and electronic equipment as part of a Cyprus wide scheme promoted by Green Dot. Their goal is to provide a professional bespoke service for their clients. Almost all the processed material is exported as paper, Tetra Pak, plastic and electronic waste.

Tyre magic

CBp Cyprus (pantelis.loizou@cbpcarbon.com) has invested heavily in its Limassol site to make a truly innovative breakthrough in tyre recycling. They have developed a cost effective, environmentally friendly method for transforming used tyres into commercial-grade steel, oil, off-gases as green energy and Carbon Green. The latter is the environmentally friendly replacement for carbon black required for new rubber tyre manufacture. The activity recycles 100% of the tyres into useable product and meets the EU's stringent criteria in this aspect. Unlike other processes of tyre disposal or recycling, they produce no carbon char which is deemed a hazardous waste.

Energy generated at the factory is also reused – a true recycling activity and providing a sustainable and environmentally friendly process contributing to global targets to reduce total carbon emissions.

The fully operational facility currently receives some 800,000 tyres per year for recycling. The research leading up to full production took five years and will continue at the Cyprus facility. This expertise will be exported beginning with the construction of three larger facilities built to the same design in North America by the end of 2014, bringing capacity up to over 145,000 tonnes of tyres.

In developing its plant, the company partnered with engineering leaders, SNC Lavalin, to develop the correct modular design for most efficient production.

Make no mistake, this development is leading edge and represents the outcome from a tremendous amount of research.

However this is an investment which has created major opportunities and significantly added to trade and exports from Cyprus.

Further information about the facility and project development is available at www.cbpcarbon.com using the Projects link, which can be found on the website's home page.

A rapidly developing activity

Cyprus has made incredible progress in recycling and waste management. It is a major and growing export activity and is being developed in both innovative and enterprising ways. Helped by excellent promotion, especially geared towards younger aged groups, the engagement of commercial companies and the public is already very high.

Equally, the businesses involved are fully committed and the processing facilities are of the highest standards with further investment being made. An example of this is the building of a state-of-the-art automated waste sorting plant in the centre of the island geared to public waste collection and to be operated by a consortium of existing private companies.

Cyprus is also leading in research and development with a key example being the tyre reprocessing facility at Limassol.

As the marketing slogan in one of the island's publications states 'I respect, I act, I save, I recycle, I live.'