



Belgian Waste & Recycling Solutions

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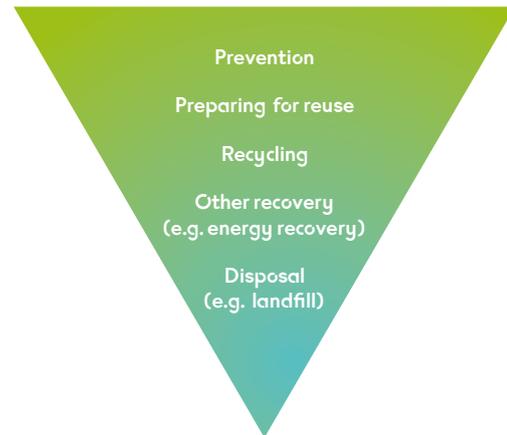
**PRESENTATION
OF THE SECTOR**

SECTION 1 THE CONTEXT

1.1. MEASURE FOR SUSTAINABILITY

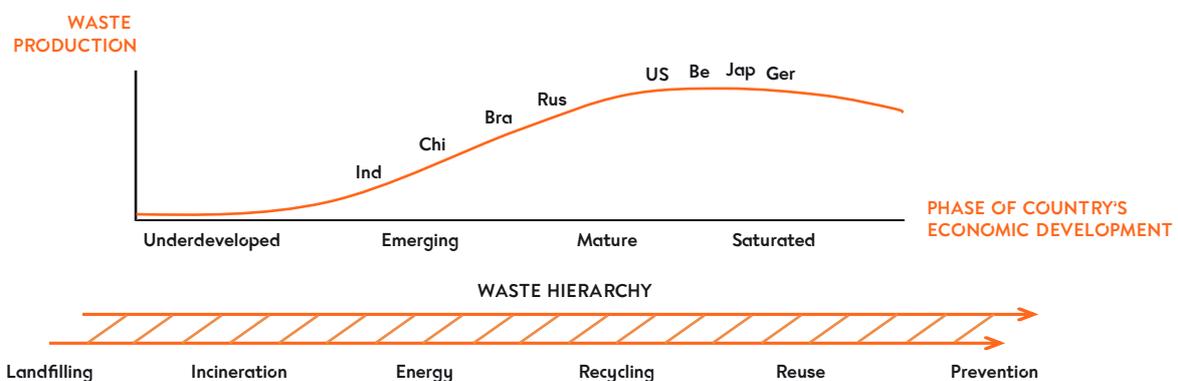
The internationally recognised measure for sustainability in the field of waste processing is the five-step waste hierarchy. It defines an order of priorities, with the more environmentally-friendly options at the top.

- **PREVENTION:** preventing waste, with the emphasis on a more efficient and less environmentally harmful use and consumption of materials via modified production and consumption patterns.
- **REUSE:** using products and materials again in the waste stage for the same purpose or a similar purpose to that for which they were originally intended.
- **RECYCLING:** the processing of waste materials into raw materials, to be used again for the production of new products.
- **RECOVERY:** priority is given to the incineration of waste with energy recovery.
- **DISPOSAL:** landfilling may only be considered as a final option.



The above hierarchy is included in the European Waste Framework Directive (2008/98), which means that it also forms the basis for the waste policy in Belgium. In Belgium the three Regions, Flanders, Brussels and Wallonia, have a high level of autonomy regarding the specification of their waste policy.

Data from the World Bank show that there is a relationship between a country's stage of economic development, the amount of waste generated and the processing techniques used. As countries implement a more mature waste policy, they focus more and more on prevention, and Belgium is one of the leading countries in the world.

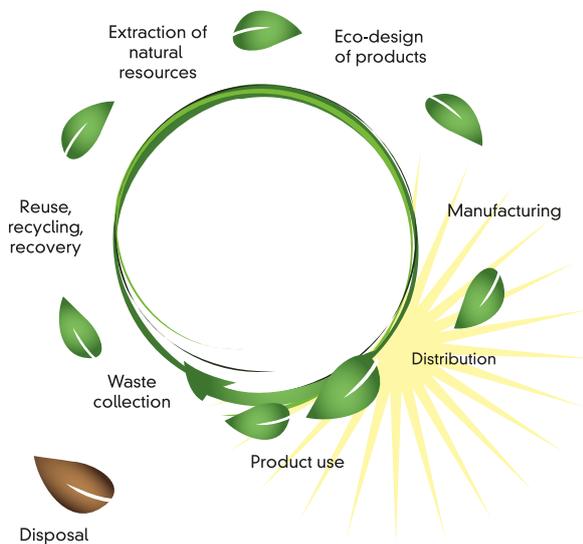


Source: ING World Bank figures

Historically, Belgium has always played an initiator's role in the field of waste legislation and policy. This is not different nowadays. The regional authorities have planned a policy that gives priority to closing material cycles.

Waste is no longer seen as a problem, but as part of the solution in the form of a valuable raw material that can be used in the manufacture of new products. This is an economically interesting concept, especially in view of the scarcity of natural resources. In this respect, people no longer use a linear economic model as the basis, but a green circular economy that takes into account the environmental effects throughout the life cycle of a product.

With the launch of the Materials Decree in 2012, Flanders has gained a head start in this new domain. For more information see: www.ovam.be.



Source: www.ec.europa.eu/environment/waste/pdf/WASTE%20BROCHURE.pdf

1.2. ECO-DESIGN

In a circular economy the eco-efficient design of products is essential, not only taking into account functionality, aesthetics, ergonomics, safety and economic values, but also environmental criteria. Furthermore, the environmental impact at every stage of the life-cycle, i.e. from extraction of raw materials to the moment when the product is disposed of as waste, should also be taken into account here.

By having a targeted approach from the start of the chain, it is not just possible to prevent waste, but also to develop products that are fully reusable and/or recyclable.

For more information about eco-design in Belgium see:

For Flanders:
www.ecodesignlink.be

For Wallonia:
www.walloniedesign.be/walloniedesign_en.html

SECTION 2 BELGIUM IN A EUROPEAN PERSPECTIVE

2.1. THE STRUCTURE OF WASTE GENERATION

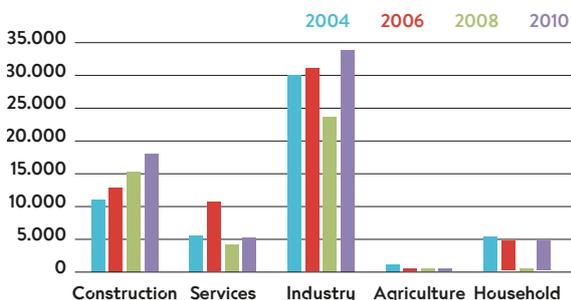
The amount of waste generated depends on the structure of an economy in terms of production and consumption. Here a distinction is made between: on the one hand, municipal waste, largely consisting of household waste, but also of similar waste from SMEs and public institutions, as well as waste collected by the municipal collection services; and, on the other hand, industrial waste.

The most recent official figures show that Belgium produced 62.5 million tonnes of waste or 5.7 tons per capita in 2010. Over 90% of this is the result of industrial activities. On average Europe generates 5 tonnes of waste per capita per year.

The sectoral division shows that most of the waste is generated by the industry, especially by the manufacturing sector, followed by the construction and services sectors. The smallest amount of waste is generated in the agricultural sector. This ratio remains stable over time.

Waste production per sector in Belgium (2004-2010), in thousands of tonnes

Source: Statbel



Although waste production partially moves along with the waves of economic growth and recession, Belgium has succeeded in separating the two. In other words, the amount of waste is not growing as fast as the gross added value in the economy.

2.2. BELGIUM AS A LEAD COUNTRY

Over the years Belgium has successfully switched to more sustainable methods that are higher up in the waste hierarchy. The following data are an indication of the efficiency of the Belgian system. The country has a leading position regarding the processing of the following waste streams:

MUNICIPAL WASTE

According to the European Waste Framework Directive, 50% of municipal waste must be recycled by 2020. Outside of Belgium, only three other European countries are currently achieving this target, namely Germany, Austria and The Netherlands (2012, Eurostat).

An important basis for this excellent result is the system for the selective collection of municipal waste at source. In the three Belgian Regions, certain waste streams are collected separately via kerbside collection, namely PMD waste (plastics bottles and flasks, metal and drink cartons), paper and cardboard, VFG (Vegetable, Fruit and Garden waste), green waste and residual waste. Other types of municipal waste must be brought to collection points

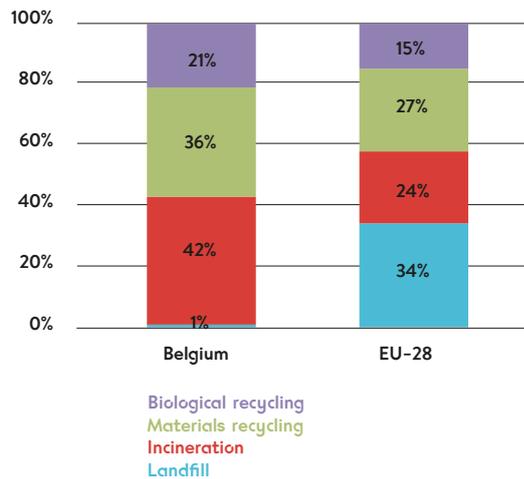
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or recycling yards, e.g. glass, small hazardous household waste, construction and demolition waste, reusable textiles and waste electrical and electronic equipment

(WEEE), green waste, etc.... In Flanders and Wallonia the local authorities are responsible for organising the waste collection and management in their territory. For this they can collaborate with other municipalities in the form of an association or with private companies. In Brussels the task is assigned to a regional agency.

Processing of municipal waste, 2012

Source: EUROSTAT



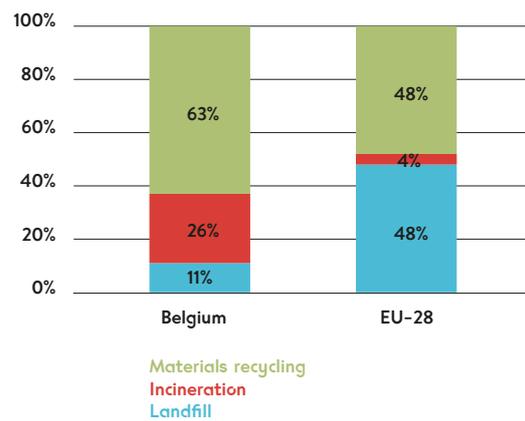
INDUSTRIAL WASTE

Even though no specific targets have been set for the processing of industrial waste on a European level, Belgium's landfilling percentage of 11% gives it a top-3 position in Europe, after The Netherlands and Denmark.

For the management of their industrial waste, companies work with specialised and registered service providers.

Processing of industrial waste, 2010

Source: EUROSTAT



PACKAGING WASTE

The most recent figures relating to the recycling of packaging waste are also clear. With its recycling percentage of 80%, Belgium is doing better than the other European countries. No less than 100% of glass waste and 90% of the paper and cardboard streams are recycled.

When also taking into account the part used for energy recovery, the percentage of recovered packaging waste rises to 97%.

Recycling of packaging waste by material stream, Belgium, 2011

Source: IVCIE (Interregional Packaging Commission)

TOTAL	80%
Glass	100%
Plastics	41%
Paper/cardboard	90%
Metals	97%
Timber	63%
Composites and other	9%

These figures are the result of the system of take-back obligation of packaging waste. This obligation means that the industry is responsible for the collection and processing of the packaging they market, on their own cost. Here a distinction is made between packaging

waste of industrial origin and packaging waste of household origin. For the former the business community has established VAL-I-PAC; the latter is managed by Fost Plus. In addition to this, there is the Interregional Packaging Commission (IVCIE, www.ivcie.be), set up by the three Belgian Regions, which monitors the harmonised management of all packaging waste.

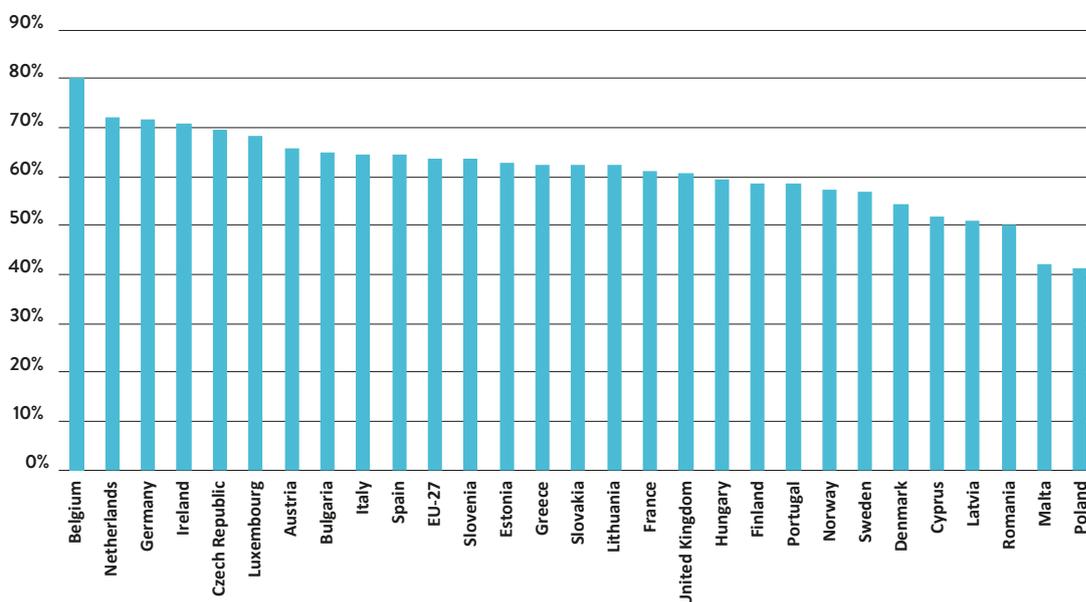
For its activities, Fost Plus (www.fostplus.be) uses what is called a 'green dot' licensing system, in which manufacturers transfer their responsibilities for the collection, separation, transportation and recycling of the packaging materials. Each business pays a contribution for this, based on the amount and nature of the packaging materials they market.

As part of its services, VAL-I-PAC (www.valipac.be) collects the recycling and recovery licences from its member businesses in a collective and global manner, but this is done without transferring the manufacturer's responsibilities.

The most recent figures relating to the recycling of packaging waste are also clear. With its recycling percentage of 80%, Belgium is doing better than the other European countries.

Recycling percentage of packaging waste, 2011

Source: EUROSTAT



WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

Electrical and electronic waste, also called WEEE, consists of electrical and electronic appliances, such as mobile telephones, computers, TVs and fridges. It basically covers all products with a power cord or battery. This waste stream is one of the fastest growing streams in the world. A report from the StEP (Solving the E-Waste Problem) think tank shows that the global electronic waste heap will increase by 33% between 2012 and 2017. The greatest increase will occur in emerging economies, such as China and India.

Apart from various hazardous substances, WEEE also contains several valuable and precious materials. Complex electronics, for example, contain up to 60 elements from the periodic table. The result of this is that specialised, high-performance recycling methods are required for the processing of this waste stream, to limit the damage to humans and the environment, and to optimise the recovery of raw materials.

In Belgium there is a WEEE take-back obligation. This means that every business which put an electrical or electronic appliance on the Belgian market is also responsible for the collection and the end-of-life management of scrapped appliances, regardless of whether these are sold by the business in question or not. The monitoring of the collection and processing of WEEE is the responsibility of an accredited body specifically set up for this, namely Recupel (www.recupel.be).

Each year almost 10 kg of WEEE is collected per inhabitant. This makes our country one of the frontrunners within the EU.

For years Belgium has also been building up knowledge and experience in the recycling of WEEE. A key player in this context is the Belgian materials technology group Umicore. The business is one of the global leaders in the field of recycling electronic waste.

At its recycling plant in Hoboken (Belgium) Umicore recovers 17 metals: precious metals (silver, gold, platinum, palladium, rhodium, iridium, ruthenium), special metals (indium, selenium, tellurium), secondary metals (antimony, tin, bismuth, arsenic) and basic metals (lead, copper, nickel). The range of materials that Umicore can recycle and the flexibility of its activities make the company unique.

The processed materials arrive from all over the world and are by-products of other non-ferrous industries or come from secondary sources, such as mobile telephones, laptops, etc.

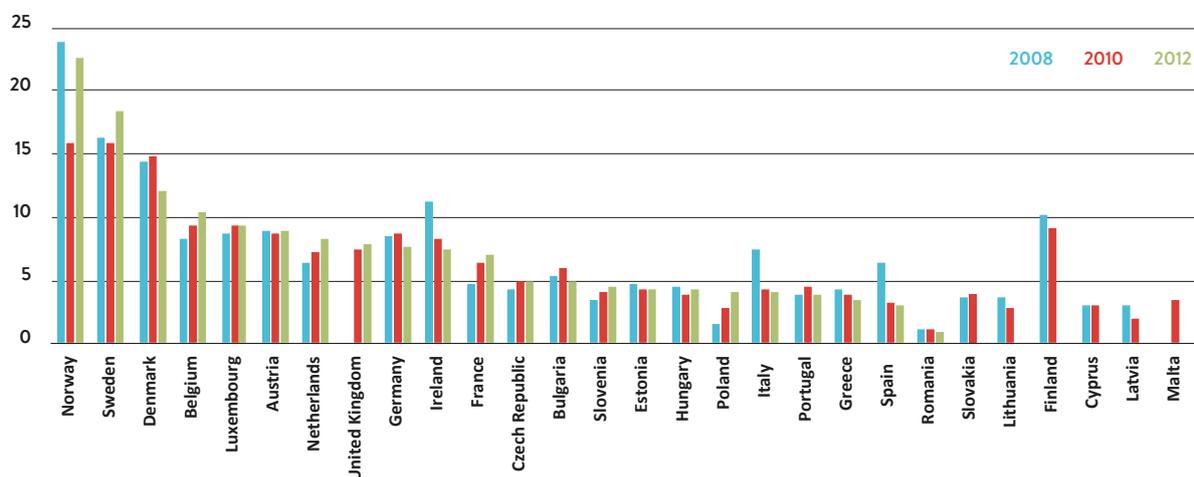
Each year almost 10 kg of WEEE is collected per inhabitant. This makes our country one of the frontrunners within the EU.

The recycling plant of Umicore is the largest in the world and also the most advanced refinery complex for precious metals.

See website: www.umicore.com

Collected quantities of e-waste, kg/capita

Source: EUROSTAT & Waste Electrical and Electronic Equipment Forum (WEEE Forum)



SECTION 3 LANDFILL SOLUTIONS

3.1. PIONEERING THE FUTURE: ENHANCED LANDFILL MINING

In the past Belgian companies have not only demonstrated expertise regarding the environmentally-friendly design and the efficient management of landfill sites; they were also pioneers in their long-term management.

Landfill sites (uncontrolled) are associated with negative aspects, such as soil and groundwater pollution and, in view of the space they take up, considered an obstacle for urban development.

Recently, however, people have also started viewing them as a source of valuable raw materials. The landfill sites are basically 'mines' for materials that used to be scrapped and classified as waste, but nowadays, thanks to technological evolution, can be recycled in a profitable manner or used for energy purposes.

In the past Belgian companies have not only demonstrated expertise regarding the environmentally-friendly design and the efficient management of landfill sites; they were also pioneers in their long-term management.

In 2008 the Belgian Machiels Group defined the term 'Enhanced landfill mining' (ELFM), indicating maximum recovery of materials and energy from (historic) landfill sites. The company then specified the concept in more detail in collaboration with its partners. In 2016 the first industrial ELFM test case in the world will start at the REMO site of the Machiels Group in Houthalen-Helchteren (Belgium).

[See Remo interview.](#)

3.2. EXPERTISE IN SOIL REMEDICATION

The uncontrolled dumping of waste, especially industrial waste, has resulted in a significant number of contami-

nated sites worldwide. The soil is also contaminated in multiple locations in Belgium. This is the heritage of our industrial past. If these sites remain untreated, they may give rise to severe health risks.

Thanks to a long history of relevant legislation and campaigns, Belgium has developed expertise in mapping out contaminated sites. Belgian businesses have also built up know-how in sustainable remediation techniques, both for in-situ and ex-situ soil treatment.

The first legal framework for the tackling of soil pollution in Belgium entered into force 15 years ago. In 1995 the Flemish Soil Remediation Decree was introduced. As a result of this Decree, the soil in Flanders was mapped out in detail. In 2006 this legislation was significantly amended, with the Soil Remediation Decree being replaced by the Soil Decree. On the one hand, this new Decree focuses on the prevention of new pollution and, on the other hand, on the remediation of historic pollution. Ambitious targets were set here. By 2015 the remediation of 40% of the contaminated sites will have started, and this figure should rise to 100% by 2036.

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The legal framework for soil surveying and pollution in the Brussels Capital Region defines all the potential activities hazardous to the soil for which soil surveys will be necessary. This 'Ordinance regarding the management and remediation of contaminated sites' from 2009 is based on the principle that the polluter pays. The tackling is performed in three phases. In an initial survey it is established whether the site is contaminated. If this is the case, a risk analysis is performed, in which the contamination is mapped out. The third phase is the actual soil remediation. This remediation is mandatory for every new and every historic soil pollution with which a risk is associated.

The Walloon government has made the remediation of former industrial sites one of its policy priorities. An important instrument in this context is the Walloon Soil Remediation Decree, which entered into force in 2004.

SECTION 4 COMPETITIVE ADVANTAGES OF BELGIUM

4.1. INNOVATION

Innovation is an important part of the competitiveness of companies.

Even though the waste sector scores well for the different dimensions of innovation, the emphasis is on technological innovation, more specifically the improvement of the production process. This means that new or clearly improved production processes are being developed with a visible effect on the output, the product quality or the costs.

A key barometer for innovative behaviour is the CIS survey (EUROSTAT). As part of this survey, companies in different European countries are questioned about their innovative activities. The waste processing sector is a specific sub-group here.

Innovation can be interpreted in different ways. On the one hand, there is innovation in the broad sense of the word. It relates to aspects of product, process, organisation and marketing. On the other hand, there is technological innovation, which only takes into account the products and processes.

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The CIS2008 survey also contained a specific module regarding environmental innovation. Companies could indi-

cate whether they had introduced an innovation 'resulting in the recycling of waste, water or materials during their own production process'. A large number of companies said 'yes' to this. Notable performers in this field were found in the paper and cardboard sector (61.9%), the chemical industry (48.4%), the rubber and plastics industry (44.8%), the production of beverages (44.7%) and the timber sector (43.7%). These figures make Belgium one of the leading countries in Europe.

PERCENTAGE OF BELGIAN COMPANIES THAT INTRODUCED INNOVATIONS, RESULTING IN THE RECYCLING OF WASTE, WATER OR MATERIALS

Paper and cardboard industry	61.9%
Chemical industry	48.4%
Manufacture of rubber or plastic products	44.8%
Production of beverages	44.7%
Timber industry and manufacture of wooden and cork articles, excluding furniture, manufacture of basketwork and wickerwork articles	43.7%
Repair and installation of machines and appliances	39.3%
Manufacture of textiles	38.6%
Manufacture of electrical equipment	36.7%
Food industry	31.9%
Printing businesses, reproduction of recorded media	30.2%
Manufacture of other mineral products not containing metals	28.7%
Automotive industry	28.6%
Other industry	25.3%
Pharmaceutical industry	25.2%
Manufacture of other means of transport	24.8%
Manufacture of metal products, excluding machines and appliances	23.9%
Metallurgy	21.8%
Manufacture of furniture	21.7%
Manufacture of machines, appliances and tools not stated above	18.7%
Manufacture of computer products and of electronic and optical products	16.4%
Basic services for innovative activities	15.9%
Leather and shoemaking industry	15.4%
Clothing industry	1.3%

Source: CIS 2008

4.2. PRODUCTIVITY

Belgium is the fourth most productive country in the world, as shown by the annual survey of the American research institute 'The Conference Board'. Within the European Union the country holds second place, after Germany.

If labour productivity is calculated as the ratio between the actual added value (volume) and the number of hours worked, it turns out that the productivity growth in the waste processing sector has been significantly higher than that of the economy as a whole since the late 1990s.

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4.3. LOGISTICS

The most recent report published by Cushman & Wakefield, an international real estate agent, places Belgium in first place regarding logistics and distribution in Europe. Both

the country as a whole and the regions are assigned leading positions. No less than six Belgian provinces, namely Liege, Limburg, Hainaut, Namur, East Flanders and Antwerp, are included in the top 10 of European logistical regions.

Belgium holds this position thanks not only to an excellent reputation in terms of logistics management; our country also benefits from a central location at the heart of one of the richest and most developed areas in the world. No less than 80% of European purchasing power is located within a radius of about 800 km around Brussels. In addition, Belgium has a well-developed multimodal transport network with an excellent port, airport, rail and road infrastructure. Belgium is home to five strategic ports, Antwerp, Ghent, Zeebrugge, Liege and Ostend, and three cargo airports (Brussels, Liege and Ostend), which in turn are not only closely connected individually via a dense network of motorways and rail infrastructure, but also connect to the transport networks of the neighbouring countries (France, Germany, The Netherlands and, via the Channel Tunnel, the United Kingdom).

In this context, Belgium has yet another competitive advantage. The costs for storage in warehouses and the property prices are lower than in the neighbouring countries.

In the circular economy of the future, Belgium will be able to profit even more from these advantages and develop into a raw materials hub, as a turntable from which recycled materials can be exported cost-effectively all over the world.



Belgian provinces in the TOP-10 logistics regions in Europe

- 1. Liege

- 2. Limburg

- 3. Hainaut

- 5. Namur

- 8. East Flanders

- 9. Antwerp

Source: Cushman & Wakefield 2013

4.4. ATTRACTIVE TAX SYSTEM

The Belgian tax and legal framework is unique. It is one of the most attractive in the world for foreign investors. In the Global Innovation Index 2013 our country scored 82.3% in the field of regulatory quality and had a result of 94.3% in terms of how easy it is to start a business. Thanks to the extremely efficient legislation, it only takes four days to start a new business in Belgium. This is faster than in any other EU Member State. All of these advantages are reflected by the open attitude of our country towards investors.

A COMPETITIVE TAX RATE

All companies in Belgium are subject to corporation tax. The nominal tax rate is 33.99%. For SMEs with a taxable profit of no more than €322,500 the tax return drops to 24.98% for profits of up to €25,000 and to 31.93% for profits of between €90,000 and €322,500. For profits of between €90,000 and €322,500, a levy of 35.54% applies to these companies.

However, Belgium also has several legal mechanisms for lowering the nominal rate (see below). By applying these measures, the actual tax rate can drop significantly below the nominal rate and may ultimately end up below that of various other countries.

“A multimodal transport infrastructure supplemented by a modern tax system positions Belgium as a smart, cost-efficient gateway for wider penetration into Europe.”

Source: <http://www.pwc.be/en/transport-logistics/assets/pwc-tl-post-tr.pdf>

NOTIONAL INTEREST DEDUCTION

The allowance for venture capital, also called the notional interest deduction, is a unique, innovative and powerful tax break in Belgium.

It means that companies can deduct a fictitious or notional interest from their taxable base. These fictitious interests match a specific percentage of their 'corrected' equity. For the 2015 tax year, the financial year ending on 31 December 2014, the notional interest rate has been set to 2.63% (basic interest) and to 3.13% for SMEs. The main objective of this system is to eliminate the tax discrimination that exists between financing with loan capital and financing with equity. It is automatically applied to all companies registered in Belgium.

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RULINGS

The Belgian tax legislator is aware of the increasing importance of prior protection of legal interests for existing and potential investors. This is why it is offering businesses a general prior ruling practice in tax-related cases. This procedure is simple, free, fast and efficient. The ruling is a prior judgment that is made within a period of three months and is legally binding for a maximum of five years. This practice offers potential investors the protection of their legal interests that they require for their projects with regard to tax matters. The Federal government has authorised a specific unit for tax requests from foreign investors.

EXEMPTION FROM WITHHOLDING TAX ON DIVIDENDS

The exemption from withholding tax on certain dividends is also widely supported by investors. This exemption expands the European Parent-Subsidiary Directive between the Member States of the European Union and Switzerland to all the countries with which Belgium has concluded a Double Tax Treaty, including Hong Kong and the United States.



By choosing Belgium as the registered seat of their holding for investments in Europe, the business investors from treaty countries can repatriate European profits without paying withholding tax on dividend payments and without profit restrictions.

4.5. ADDITIONAL BENEFITS FOR R&D

ALLOWANCE FOR INCOME FROM PATENTS

Businesses enjoy a tax break of 80% on income from certain patents. This measure gives Belgium the lowest effective tax burden on income from patents (no more than 6.8%).

The scheme can be used for Belgian companies and Belgian branches of foreign businesses, as long as Belgian corporation tax applies.

Eligible patents for large companies:

- patents self-developed in a Belgian or foreign R&D centre
- patents acquired (by purchasing, or licence...) provided they are being further developed in a Belgian or foreign R&D centre

Eligible patents for SME's:

- patents registered in their name (own R&D centre not required)

Eligible income:

- licence payments: milestone payments, upfront fees...
- a portion of the turnover of patented products and services

Businesses enjoy a tax break of 80% on income from certain patents. This measure gives Belgium the lowest effective tax burden on income from patents

LOWER WAGE COSTS FOR RESEARCHERS

To alleviate the wage costs for researchers, a significant tax break is offered to employers, namely an exemption to advance corporation tax of up to 80%.

In addition, there is also a special tax system in Belgium for foreign executives who temporarily work in the country.

Attractive conditions in this context include tax-free secondment fees (up to €29,750 per year), tax-free allowances for installation costs, school fees and business trips.

4.6. FOREIGN DIRECT INVESTMENTS

The European Attractiveness Survey for new investment projects in Europe, published by Ernst and Young, puts Belgium in 5th place. Compared to 2012, the number of investment projects in our country increased by 4%.

Foreign companies quote the diversity and skills of Belgian workers, the Belgian capacity for innovation, the logistics situation and certain tax breaks, such as the notional interest allowance, as crucial elements for the decision to invest in Belgium. According to Ernst and Young, "American companies have traditionally invested in Belgium due to its location regarding logistics, the highly trained workers and the tax regime".



SECTION 5

PLAYERS

SUPPORT AND ADVICE FOR FOREIGN INVESTORS

FIT, AWEX and **Brussels Invest & Export** each promote their own region: Flanders, Wallonia and Brussels. They have three main tasks, which they each fulfil in their own way:

1. Supporting exporters from the region
2. Informing, prospecting for and advising potential foreign investors
3. Promoting the region abroad

Besides tax incentives Belgian regions also grant companies significant financial incentives for such things as recruitment, training, R&D, investment, consultancy and environment protection.



Flanders Investment & Trade (FIT) provides professional advice to all foreign companies that want to start or expand operations in Flanders. To make things even easier, FIT has a network of more than 90 offices abroad that can give advice. Their presence on the ground means that they know better than anyone what foreign investors need. More generally, FIT helps companies wishing to invest in Flanders to find the best location, get the right information and make the right contacts. It also offers assistance in applying for grants and other aid, and in understanding Flemish and national regulations, etc.

www.flanderstrade.com

www.flandersinvestmentandtrade.com



The Wallonia Export and Investment Agency (AWEX) offers general expertise in international economic relations. This expertise extends from promoting Walloon exports to seeking foreign investment (helping find suitable sites, explaining support measures and tax rules, and providing information on recruitment and staff training, project funding etc.). AWEX also provides a range of services to all Walloon businesses aiming to operate internationally. However it is also the partner of choice for all buyers, importers and foreign prospects who are looking for a partner in Wallonia and wanting to find products, equipment, technologies or services in the area.

Outside of Belgium, AWEX is able to count on an international network of 109 financial and business attachés covering more than 120 markets and some 20 international organisations. These representatives are the key contact locally for any business or public body wanting to develop a business or partnership relationship with Wallonia or simply wanting to find out about the economic potential of such a relationship.

At the Walloon level, AWEX's main partners are in particular the centres of competitiveness and the technological clusters.

www.awex.be

www.investinwallonia.be



Brussels Invest & Export promotes foreign trade, assists Brussels companies, and attracts foreign investors to Brussels. It has built a database to help foreign investors with a specific project in mind find business partners in Brussels. Brussels Export has a foreign network of some 88 economic and trade attachés. Some of these are shared with FIT or AWEX. Invest in Brussels specifically offers companies the opportunity to test Brussels as a business location for three months, providing them with free office space, secretarial services, facilities and professional advice from experts on suitable locations, support facilities, sector-related issues and legislation at Brussels and federal level, among other things.

www.brusselsinvestexport.be

www.investinbrussels.com

FEDERAL PLAYERS



FEBEM is the Federation of Belgian Waste Management and Environmental Companies. It represents the private corporate entities that collect, sort, treat, recycle and/or process waste and the soil remediation centres. Companies that generate energy from biomass waste are also members. As a result, FEBEM represents about 10,000 employees at about 200 companies with a total turnover of more than 3 billion euros.

The services have increased dramatically in recent years and include training, translations and daily information messages.

FEBEM operates on a local, regional, federal, European and international level. To protect the interests of its members on a European and international level, it collaborates with the European Federation of Waste Management and Environmental Services (FEAD).

www.febem-fege.be



COBEREC VZW, the Confederation of the Belgian Recovery Sector, is the Belgian professional association that represents the companies active in the recovery and recycling of ferrous and non-ferrous metals, paper and cardboard and textiles. It protects the interests of its members in a social, economic, legal and environmental regard. It also provides all kinds of services: legal assistance, information, etc.

www.coberec.be



Agoria is partner to 1,700 companies in the technology industry. The federation and its 200 employees provide members with information, services and advice.

Agoria is not afraid to leverage the strength of its members. The federation is involved in drafting legislation at regional, federal and European level to improve the position of tech firms.

www.agoria.be

REGIONAL PLAYERS



The Flanders Cleantech Association (FCA) is a cleantech cluster that groups Flemish cleantech companies and supporting actors. The purpose of FCA is to create a strong reputation for Flemish cleantech power abroad in influential networks, new markets, potential investors and projects involving cleantech innovations.

For this FCA maintains worldwide contacts with other cleantech clusters and associations, in order to discover and encourage opportunities for cross-border collaboration between Flemish and foreign cleantech companies.

www.fca.be



GreenWin is an innovation cluster dedicated to the green technologies. GreenWin brings together in a single network 160 members: companies (about 70% of SMEs), universities, research centres and training organizations. GreenWin aims at strengthening Wallonia's industrial facilities, identifying skills and innovative ideas. GreenWin supports ambitious business-led projects that reduce the environmental impact of industry and housing by improving the life cycle of products: process intensification, use of renewable materials, reduction of waste production and reuse or recycling of wastes. GreenWin's projects portfolio relies when possible on the principles of circular economy. GreenWin's scope covers green chemistry, green materials and building, and environmental management (waste & recycling management, water and air treatment, soil remediation). In relation to Waste & Recycling Solutions, GreenWin's members develop projects in landfill mining, recycling of plastics, paper industry by-products, strategic metals, glass, CO₂, and more.

www.greenwin.be



Val+ is a Wallonian Business Cluster that gathers high skilled industrial companies, experts and research centres active in the solid waste sector (domestic wastes, industrial wastes, green wastes, construction wastes, hospital wastes, asbestos, sludges, polluted soils and groundwater, electric & electronic equipment wastes...)

It focuses its activities on three areas: the rehabilitation of polluted industrial sites, soils and landfills; the recycling of wastes and recovery of materials, including sludge; and sustainable development strategies. Its target countries are Belgium, France and Eastern Europe.

www.clusters.wallonie.be/valplus-en



Already for years, the **Public Flemish Waste Agency (OVAM)** strives for efficient and sustainable management of waste, materials and soil. The joint efforts of the OVAM, citizens, the private sector and local governments have made Flanders a leading European region in this domain. To minimize our environmental impact and to maintain our position as pioneer, we want to continue – and even boost - these efforts. Our ultimate goal is a true circular economy in which a sustainable management of waste, materials and soil makes new resources, materials and space available.

To meet this ambition, the OVAM focuses on five clear-cut objectives: (1) preventing waste generation, (2) decreasing the mountain of waste, (3) reusing and recycling as much waste as possible, (4) processing waste in an environmentally-friendly manner, (5) preventing new soil pollution and remediation of contaminated sites.

www.ovam.be

REGIONAL PLAYERS (continuation)



Leefmilieu Brussel is the public name of the Brussels Instituut voor Milieubeheer (BIM) [Brussels Institute for Environmental Management], the environmental and energy administration of the Brussels Capital Region.

Its main duties are to study, monitor and manage the air, water, soil, waste, noise, nature (green spaces and biodiversity), etc., however it also issues environmental licences, checks compliance with these, develops and supports environmental educational projects in the schools of Brussels, participates in meetings and negotiations at national and international level, and so on. Finally, Leefmilieu Brussel has also expanded its activities in the field of eco-construction and has improved links between health and the environment.

Leefmilieu Brussel is behind the “Ecodynamische onderneming” [“eco-dynamic enterprise”] labels, which signal official recognition, in the Brussels Capital Region, of good environmental management practices implemented within companies. It rewards their environmental get-up-and-go and their progress in particular in the fields of waste management, rational energy usage, management of staff mobility, etc.



www.leefmilieubrussel.be



The cluster **Brussels Greentech** provides support and guidance to entrepreneurs in the Green Technologies sector in the Brussels-Capital Region.

Next, it offers its services to all Brussels-based companies experiencing difficulties of a technical nature with the implementation of environmental legislation.

In the case of Brussels-based “GreenTech” companies, the cluster first provides individual guidance (support and development with Business Plans, Financial Plans, Market Studies, assistance with bringing products to an international market (technology offerings and demand), etc. The cluster also offers generalised guidance through the dissemination of strategic information (organising seminars, round tables, lunch meetings, debates, etc.) and good visibility of the sector (websites, social media, Newsletters, etc.).

As regards companies encountering difficulties of a technical nature, the cluster provides 2 types of support: technical (in implementing environmental legislation) and subsidies (in the areas of environment and energy).

www.greentechbrussels.be/en



Wallonie

Service public
de Wallonie

The main duties of the **Département du Sol et des Déchets [Soil and Waste Department]** and of **the Office wallon des déchets [Walloon Waste Office]** are as follows: ensure the implementation of the waste policy of Wallonia, including problems relating to subsidies for actions and infrastructure subsidies, within the framework of the actions entrusted to it by planning in this area and by European directives and regulations; issue opinions concerning waste management activities by companies; ensure the application of fiscal provisions relating to waste; ensure the development of the soil protection and reclamation policy.

The Office also guarantees the participation of the Walloon Region within the Interregional Packaging Committee (IRPC), a public body founded by the 3 regions of Belgium in order to ensure harmonious management of packaging waste.

www.environnement.wallonie.be

Founded in 1991, **SPAQuE** is in charge of the rehabilitation of landfill sites and polluted industrial wastelands. It also maintains an inventory of polluted sites in Wallonia, whilst also developing projects in the field of alternative energy sources: wind power, photovoltaics, hydroelectricity, biomass, etc. Finally, through its branch offices, it acts as a major stakeholder in the industry for the collection, treatment and recycling of inert and construction waste.

www.spaque.be

SUPRANATIONAL PLAYERS



The European Federation of Waste Management and Environmental Services (FEAD) is the European umbrella organization representing the EU's waste management industry. Its 20 members are national associations of waste management and environmental services, whose members are mainly private waste management companies.

FEAD represents about 3,000 companies with activities in all forms of waste management. These companies employ over 320,000 people who operate around 2,400 recycling and sorting centres, 1.100 composting sites, 260 waste-to-energy plants and 900 controlled landfills. They play an important role in the determination of the best environmental option for waste management problems.

www.fead.be



The European Ferrous Recovery and Recycling Federation (EFR) is located in Brussels, Belgium. EFR was created in 1992 from COFENAF the Liaison Committee for ferrous scrap within the E.E.C. which was founded in 1967. EFR members are national associations and federations in the EU Member States representing the interests of commercial firms that are primarily involved in the collection, trade, processing and recycling of ferrous scrap. In the E.U. member states, more than a thousand large companies and SMEs are represented through EFR. EFR's particular objective is to give the sector the place it deserves in all current and future European Community environmental protection and recycling programs. Since December 2000, EFR has set up the European Shredder Group - ESG - which represents the interest of the European Shredder operators in light of the implementation of the European Directive on end-of-life vehicles (ELVs). Currently the EU is a net exporter of ferrous scrap to iron and steel works around the world.

www.efr2.org



ERPA is the European Recovered Paper Association.

Created in the early nineties under the name of WAPAC, ERPA aims at promoting the use and international trade of recovered paper for further production of recycled paper and cardboard. ERPA members are the national recovered paper federations of the different European Union countries. ERPA focuses on European Union topics with its main objectives to study and examine all the commercial, legal, environmental and technical issues relating to the trade, recovery, process, recycling and transportation of "used" paper. In close cooperation with its European Union counterpart CEPI, ERPA has participated in the development of the European Union Recovered paper standard specifications and of the most recent European declaration on paper recovery. The major concern of ERPA members is the current lack of clear legal distinction between collected unprocessed paper which is not suitable for immediate use and consumption by the paper and board producers and the paper which has been processed and recovered according to strict technical and environmental specifications. In ERPA's view recovered paper should be freely traded in order to supply the producers of new and recycled paper in the European Union and elsewhere in the world. Presently the EU exports some 10 million tonnes of recovered paper to paper mills around the world each year.

www.erpa.info



EUROMETREC, the European Metal Trade and Recycling Federation is located in Brussels, Belgium and was created in 1990 from the Liaison Committee for non-ferrous metals trade within the EU, which was itself formed in 1969.

EUROMETREC members are national federations in the EU Member States representing the interests of commercial firms that are primarily involved in the collection, trade, processing and recycling of non-ferrous metal scrap. In the EU Member States, more than a thousand large companies and SMEs are represented through EUROMETREC.

www.eurometrec.org



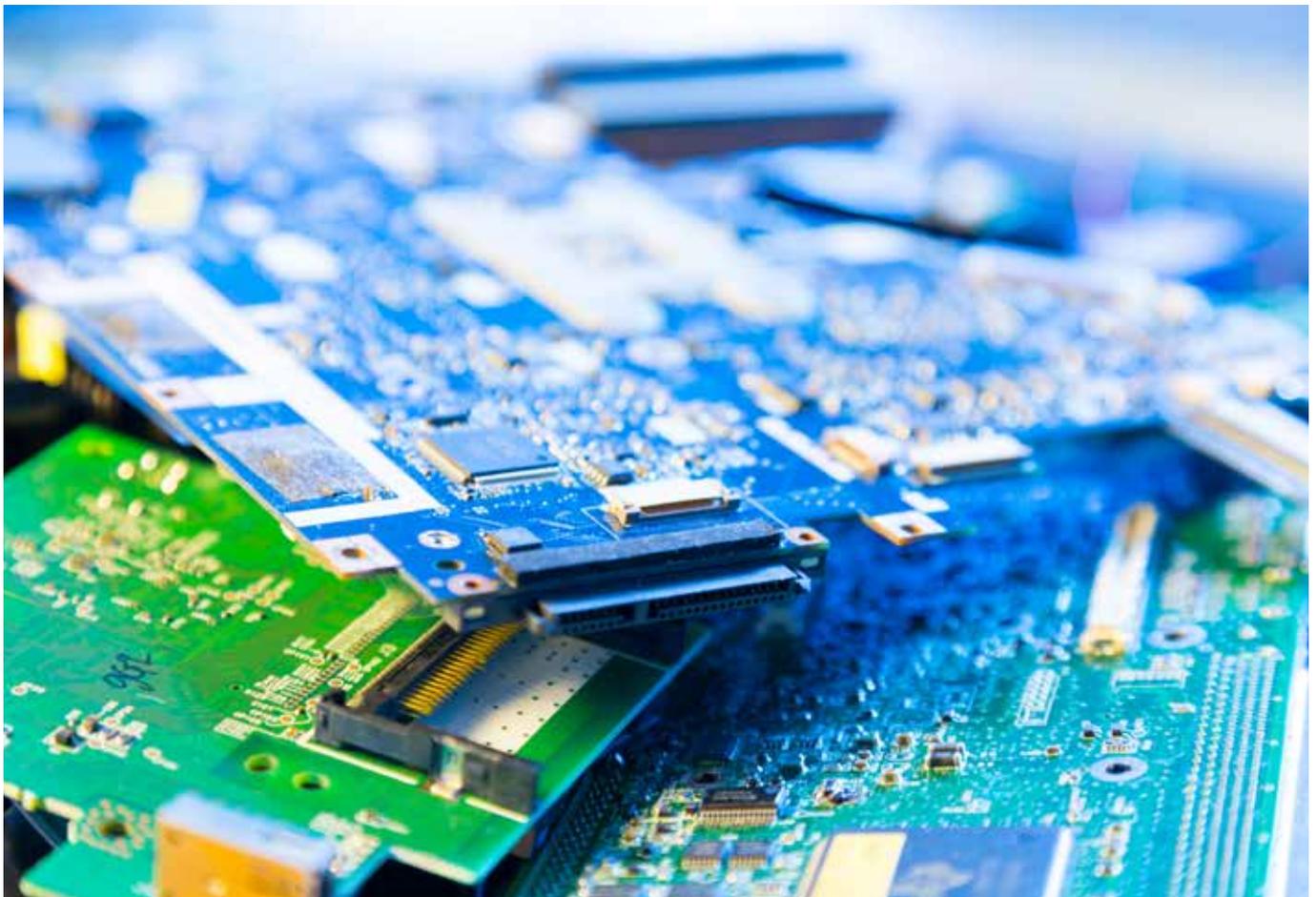
Euroshore International, the association of port reception facilities in Europe and beyond, is an international organization founded in 1998 with members in 12 Countries. A major aim of Euroshore is to promote to the shipping industry the use of port reception facilities that protect the environment through the efficient and sound disposal of ship's waste.

www.euroshore.com



FERVER, the European federation of glass recyclers is an International Non-Profit Organization with members in 16 European countries. FERVER members are recycling waste glass into high quality cullet - a key and valuable raw material used by the glass manufacturing industry to produce new products. They are collectively responsible for the collection and recycling of approximately 70% of the total glass waste in the European Union.

www.ferver.eu







SUCCESS STORIES IN BELGIUM

The second part of this publication contains 12 success stories of Belgian companies from the three Regions. The Success Stories chapter is organised around 4 categories:

- **COLLECTION AND SORTING**
- **WASTE-TO-MATERIAL**
- **WASTE-TO-ENERGY**
- **LANDFILL SOLUTIONS**



Interview with
Dimitri Bohez
Director

- **Founded in 1948**
- **Head office: Zulte**
- **Annual turnover: EUR 7.3 million**
- **Number of employees: 50**
- **Export share: 90%**

Eurofrip boasts more than 60 years of experience. Dimitri Bohez explains how his grandfather began recycling old rags in the late 1940s. Over the years, the business evolved into a cleaning cloth company, eventually expanding to become the company we are familiar with today, a modern and dynamic family business which sorts second hand clothing.

Sorting with the aid of speech technology

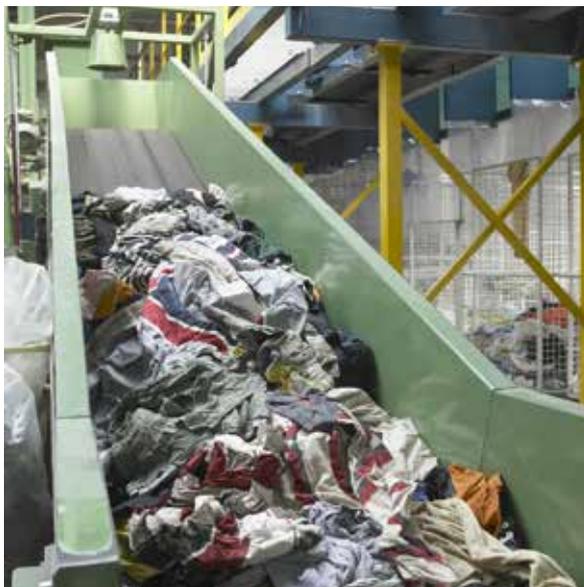
Eurofrip receives around 45 tonnes of clothing each day through its suppliers, who are commercial and charitable organisations in Belgium and abroad. The collected items are first sorted with the aid of speech technology and divided into more than 70 categories (shirts, trousers, handbags etc.). The second stage involves sorting the clothing further into different items. In both stages the clothes are assessed according to a number of criteria, such as fashion, wear and tear and size. After this process, Eurofrip is left with around 200 items, which can then be divided into four large groups,



One of the defining moments in Eurofrip's development was its investment in speech technology.

depending on their future use: wearable clothing (50%), cleaning cloths (20%), products for the recycling industry (20%) and waste (10%). 90% is earmarked for export, 70% of that outside Europe - predominantly, the African continent. "Each day, a 40-foot container leaves here carrying clothing for Africa", says Dimitri Bohez. The company also supplies a diverse group of other countries such as India, Pakistan, the countries of Eastern Europe, and Benelux.

One of the defining moments in Eurofrip's development was its investment in speech technology. Sorting waste is a labour-intensive process and the automation delivered by this technology boosted productivity. This has proved crucial in strengthening the company's competitive position. Eurofrip was the first Belgian company to incorporate the technology in its production process and the second on the European market. Dimitri Bohez is quick to add that "human resources" still play a central role. It is not just the work ethos that matters here but, more especially, the sorting know-how. This expertise in assessing items of clothing for their "value" is an asset that the company has built up over many years in the sector, and it is what sets it apart from the competition - which increasingly stems from low-wage countries. Eurofrip invests a lot of time and energy in training its employees.



The added value of Eurofrip's activities lies in reducing the mountain of waste by recycling waste textiles. In the past, this form of waste was often lost, being discarded with the household waste or burned. Eurofrip, however, buys it and sorts it, giving it a new lease of life, either as clothing or as a raw material for the recycling or cleaning cloth industry. The residual fraction is kept to a minimum.

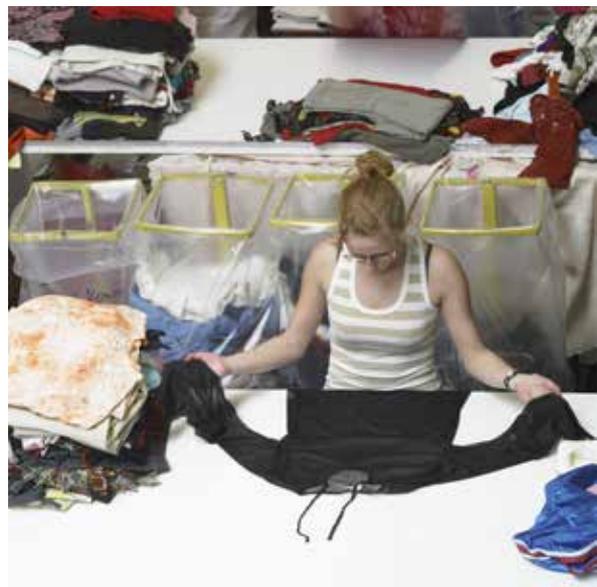
Belgium

Eurofrip is proud of its Belgian roots, and has no plans to "delocalise" in the future. This choice is dictated by logistical factors, such as the well-developed transport infrastructure and the proximity of sea ports, chiefly the port of Antwerp, which enables the company to export anywhere in the world cost-effectively. Dimitri Bohez also cites the Belgian work ethic, "the motivation and the high level of productivity".

The future

As a family business, Eurofrip believes in steady, organic growth with a forward-looking mindset. Carefully considered risks are central to its approach.

The added value of Eurofrip's activities lies in reducing the mountain of waste by recycling waste textiles.





Interview with
Jérôme Pickard
Manager

- **Founded in 1996**
- **Established at Forest**
- **Number of employees: 32**
- **Turnover: EUR 3.6 million in 2013**
- **Growth: 8 to 10% (over the last five years)**
- **Certified to EMAS & ISO 14001**
- **6,000 tonnes of waste treated per year**



More than just a collector

Founded in 1996, MCA Recycling originally specialised in the destruction of confidential documents. The prospect of the Millennium Bug led to the large-scale replacement of computer equipment by companies and allowed MCA Recycling to extend its services to the management of WEEE (waste electrical and electronic equipment).

Several years later, following client demands, the SME is embarking on the development of selective sorting tools for corporate waste, which is becoming its main business. "We want to provide a solution as soon as the waste is created," says Jérôme Pickard.

Far more than just collecting its waste, MCA Recycling wants to support and advise the client on his waste management policy. It provides a local service by engaging with a building's managers and its tenants, plus the cleaning services. Based on the activity carried out, the type of waste produced and the configuration of the area, MCA Recycling offers a choice of collection equipment (bags, bins, waste stations, containers, etc.).

"The advantage of putting in place a system in coordination with our client is that it is perfectly suited to the client's needs while also complying with the legislation in force, which is becoming increasingly restrictive," Jérôme Pickard tells us. "Our client can focus on his core business while we deal with his waste."

In order to motivate the employees of client companies, MCA Recycling resorts to visibility by drawing up an annual environmental benefit report. This complete and individual audit details the volumes collected by waste type and calculates the impact of selective sorting in terms of CO₂ emissions prevented, non-renewable energy consumption saved and environmental costs spared.

**We want to provide a solution as soon
as the waste is created.**

Quality above quantity

"The waste collection sector is becoming increasingly competitive," explains Jérôme Pickard, "and this is in spite of the numerous barriers to entry and additional checks." On the Belgian market, MCA Recycling is part of the chasing pack just behind the major players.

Today, MCA's vehicles travel around the cities of Antwerp, Namur, Ghent and Brussels. Their fuel consumption is considerably lower than that of conventional bin lorries. Jérôme Pickard also reveals that the vehicles enter clients' premises to collect waste. This detail, previously insignificant, limits the visual pollution of pavements and ensures security and confidentiality.

MCA does not rely on sales departments. "We attract and retain our clients by word-of-mouth and trust," Jérôme Pickard confirms. "As a small-structured service provider, quality, speed and flexibility prevail and make us stand out from the competition."

In January 2014, MCA obtained ISO 14001 certification and EMAS (Environmental Management and Audit Scheme) registration. "This guarantees that we comply fully with the latest legislation, that all of the waste we collect can be traced and also consolidates our desire to continually improve environmental performance linked to our business."

The Brussels region looks after its entrepreneurs well, with regard to both advice and funding.

Brussels, strategic position

Jérôme Pickard highlights the importance of his company's central geographical location. Indeed, 60% of its waste collection takes place in the capital. "We want to optimise our rounds in order to limit our trips as much as possible." Downstream, the same logic applies and the waste is sent to Belgian industries.

"The Brussels region looks after its entrepreneurs well, with regard to both advice and funding," says Jérôme Pickard, citing the support given by *impulse.brussels* and the aid for companies department. He also mentions the work of the FEGE [Federation of Environmental Management Companies] in defending the interests of private waste collectors.

Keen to participate in life in its municipality, MCA Recycling collaborates with Actiris and the Mission Locale de Forest enabling its workers to participate in regular training sessions (languages, first aid, defensive driving, etc.).

On the agenda: diversification and expansion

"The diversification of our activities is linked to the development of new recycling technologies," says Jérôme Pickard. Our latest investment is in relation to a machine that grinds and compacts expanded polystyrene, a material whose treatment MCA Recycling will be able to improve from now on. "Our aim is to recycle waste to the full in order to send the minimum amount possible to the incinerator."

With this in mind, MCA Recycling is also counting on reuse. "The challenge is to find partners who will give certain items a second life: like the hundreds of files destined for the bin that we collected after a major client moved premises, which we delivered to schools".

The SME is also striving to increase its client portfolio. Setting up a branch in Seine-Saint-Denis near Paris is a possibility that will be seriously considered by Jérôme Pickard in the coming months.



Interview with
Philippe Dufour,
Managing Director

- **Part of the Dufour group**
- **Founded in 1957**
- **Based in Marquain, an area of Tournai**
- **Handles 100,000 tonnes of waste per year**
- **Export share: 30%**
- **Growth: 5% in 2013**
- **150 employees (for the environment business)**
- **Turnover: around EUR 25 million**

The added value of our business is not transport, but treatment that is appropriate to each type of waste.

A family history

Founded in the early 1900s by the grandfather of the four current shareholders, who are all cousins, the Dufour family group is divided into several companies specialising in diversified and complementary fields of business: the fuel and oil trade, production and delivery of concrete, lifting and handling, logistics and maintenance, organisation of special consignments, environment, etc. Its various subsidiaries are established in France at Lille, Dunkirk and Paris, and in Tournai in Belgium. The latter is home to the group's "Environment" section, embodied by the Cogetrina company, which deals in the transport, collection and sorting of waste.

A second life for waste

Authorised to collect waste in the country's three Regions, Cogetrina's most important clients include the organisation FostPlus and Ipalle (intercommunal company for Wallonie picarde).

Cogetrina uses 200 of the group's 500 vehicle registration documents and its fleet includes 1,200 containers and compactors, presses, 3,000 wheeled bins and 100 buried containers.

"The added value of our business is not transport, but treatment that is appropriate to each type of waste," stresses Philippe Dufour.

100,000 tonnes of waste pass through the Marquain site each year. With the exception of single products that have already been pre-sorted, the waste arrives in bulk and passes through the Cogetrina sorting centre, where it is categorised according to the different recycling channels. These operations are carried out mechanically and are followed by a final manual refining process in an effort to achieve a recovery rate of close to 100% and thus limit the amount of waste that is incinerated or sent to landfill.

"We are trying to push the boundaries further and further in regard to sorting in order to ensure that all waste has a second life," explains Philippe Dufour. "Cogetrina is constantly on the lookout for new recycling channels and high-performance technologies." The aim is also to store as little as possible.

We are trying to push the boundaries further and further in regard to sorting in order to ensure that all waste has a second life. Cogetrina is constantly on the lookout for new recycling channels and high-performance technologies.

In order to optimise transport and minimise stocks, waste is then prepared and packaged before finally being traded for resale and transported to the end salvage dealers. Around 30% crosses Belgium's borders, heading mainly to France, the Netherlands and Germany. Some waste is destined for worldwide export to China or other Asian countries via traders accustomed to handling large amounts.

Pampered clients

The aim is to provide a complete service so that the word "waste" no longer represents a concern for the client. The company offers its clients global waste management solutions, for example, by installing an internal container fleet and by entrusting its management to Cogetrina's staff.

The company's steady growth is attributed to the dynamic nature of the expanding marketing team. "These days, we are continuously looking for new clients," explains Philippe Dufour. "In addition, we are realising the invaluable potential of our existing clientele. That's why we look after our clients, visit them and pamper them."

Upstream, among the waste suppliers, the Dufour group has clients who use the successive services of several of its companies (for example earth-moving, ordering concrete, removal of rubble, supply of fuel oil, etc.). The fact that Cogetrina is part of a versatile family group allows it to expand its address book using its sister companies.

The catchment area extends from Comines to Brussels covering Mons, La Louvière and Charleroi. Cogetrina also has several waste collection contracts in Flanders. Although Dufour is active in northern France through its company Dufour Levage-Manutention, Cogetrina and its waste business are poorly represented there. While the market in the nearby urban area of Lille-Roubaix-Tourcoing is attractive, it is difficult to access for administrative and economic reasons.

We look after our clients, visit them and pamper them.

A network of partners

"Our real competitors are the multinationals," says Philippe Dufour. However, these companies have more complicated working methods, whereas Cogetrina is able to demonstrate flexibility, creativity and proximity to its clients.

Cogetrina sees other similar-sized organisations active in the field of waste collection and sorting more as colleagues with which it regularly carries out business exchanges. There are also several public-private partnerships in place with the neighbouring intercommunal companies.

Philippe Dufour is also keen to highlight the support given by the FEGE (Fédération des Entreprises de Gestion de l'Environnement [Federation of Environmental Management Companies]). "It allows us to keep up to date with the latest news regarding legislation and also gives us the opportunity to meet our peers to exchange views."

He also mentions a recent award from DG06 [Operational Directorate General for Economy, Employment and Research], an administrative organisation in the Wallonia Region, granted for a research project on waste purification aimed at obtaining an alternative secondary fuel or a plastic.

Setting sail for the inland waterway system

Cogetrina will soon be branching out into inland waterway transport thanks to an agreement with Sodemaf, another member of the Dufour group and future manager of the port of Vaulx. This will allow the company to use the port's waters to transport its scrap metal waste to a partner with a transfer quay for grinding.





Interview with
Raf Vanswartenbrouck
Board member
Martine Meuws
General Manager

- **Founded in 1980**
- **Head office: Lummen**
- **Consolidated annual turnover: EUR 27 million**
- **Number of employees: 110**
- **Awards: Three times Trends Gazelle for fast-growing businesses in the “Medium-sized businesses” category, Limburg region**

G.R.L. -Glasrecycling NV is part of a fourth generation family business which was originally founded in 1933 as a logistics service provider, under the name Transport Van Swartenbrouck NV. In 1980, the company broadened its operations to include the collection and processing of waste glass, initially focusing on flat glass but subsequently expanding to include container glass. G.R.L. -Glasrecycling NV was born. Over the years, G.R.L. -Glasrecycling NV has evolved into a leading recycling company specialised in the upcycling of all kinds of glass waste to produce a reusable raw material.

The company has adopted the closed-loop recycling approach, whereby the recycled materials retain their value during the recycling process and can subsequently be reused for the purposes for which they were initially manufactured.

Another key factor in the family company’s development was its expansion into Germany. “Our takeover, of a German glass recycler in 2005, quadrupled our processing capacity”. G.R.L. -Glasrecycling NV, the German sister company of G.R.L. -Glasrecycling NV, is based in Dormagen.

It has a total processing capacity of 640,000 tonnes per year, making the G.R.L. Group one of Europe’s larger glass recyclers.

Innovation and sustainability

Raf Vanswartenbrouck explains that “Belgians are not very disciplined when it comes to sorting waste. Because of this, our unprocessed glass waste is some of the most contaminated in the EU.” This situation makes it much harder to recycle glass, particularly since glass producers are constantly tightening their quality standards.

This conflict is what prompted G.R.L. -Glasrecycling NV to become one of the first companies in Europe to invest in a new, innovative purification technology based on a dry cleaning process. “In fact, we turned what was a dis-

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One of the first companies in Europe to invest in a new, innovative purification technology based on a dry cleaning process.

advantage of the Belgian market into an asset” says Raf Vanswartenbrouck.

By introducing dry cleaning, the company succeeded in increasing the yield from the recycling process and reducing the residual waste that has to be discarded. As well as improving quality, it is also reducing the organic pollution of the end products and the contamination of industrial wastewater.

The end result is a high-quality product: furnace-ready cullet of a particular grain size which the glass manufacturer simply has to smelt.

In other words, the cullet can be directly used in the production process. This reduces the glass industry’s dependence on primary raw materials, which in turn greatly eases the burden on the environment. Moreover, because the cullet is of such high purity, it can be smelted at a lower temperature, meaning that glass producers incur fewer smelting losses and consume less energy. In addition, the use of recycled glass reduces CO₂ emissions during glass production. From an environmental perspective, this is another triple benefit.

To create the warm air for the dry cleaning process, G.R.L. -Glasrecycling NV installed a combined heat and power system or Heat Recovery Power Plant (HRPP) (CHP) which generates both electricity and heat. This CHP system meets the company’s entire energy requirements and uses only certified palm oil as fuel. G.R.L. -Glasrecycling NV is the first company in its sector that can claim to be fully CO₂ neutral.

The company recycles both flat glass and container glass. Container glass Cullet can be used in the production of new container glass and flat glass Cullet can be used either to make new flat glass or new container glass. Both types of glass have various other applications besides these, such as glass fibre, foam glass, glass abrasives, sandpaper, artificial pearls etc.

The first company in its sector that can claim to be fully CO₂ neutral.

Export

Raf Vanswartenbrouck explains that “the potential sales of Furnace Ready Cullet in Belgium account for less than 15% of the total number of recycled glass (Furnace Ready Cullet) in the country. So we have to find a market abroad for the vast majority of our recycled glass.”

G.R.L. -Glasrecycling NV generates 95% of its turnover from exports, the main market being the Netherlands. It also exports to the rest of Europe, the Middle East, South America and Asia.

Belgium

When asked about the advantages of being based in Belgium, he cites the country’s geographical location, including the proximity of two sea ports - Antwerp and Rotterdam -, the well-developed logistics network and the availability of relatively cheap logistical resources. These three factors combine to enable the company to export cost-effectively to the rest of the world.

The efficient sector federations are another strong point. “Both the horizontal communication between the different companies which operate in the environmental sector, and the vertical communication between these companies and the government authorities at various levels is well organised in Belgium,” says Raf Vanswartenbrouck.

The future

Energy is becoming more and more expensive, raw materials are becoming more and more scarce and technologies are constantly evolving. The upshot of this is that global demand for furnace-ready Cullet (recycled glass) will rise. G.R.L. -Glasrecycling NV intends to capitalise on this and increase its market share in future.





Interview with
**Caroline
Vandebossche**
Managing Director

- **Founded in 2003**
- **Based in Brussels (Haren)**
- **Number of employees: 48**
- **Turnover: EUR 8.4 million in 2013**
- **Investment in R&D since its creation: EUR 4.7 million**
- **Export share: around 20%**
- **Awarded the “Entreprise Ecodynamique - 2 stars” label**

Admittedly it's more expensive in terms of time and labour, but it allows us to optimise material recycling.

A history in three key dates

Brussels Recycling Metal (B.R.Met) was established on 1 January 2003, initially specialising in buying, selling and recycling ferrous and non-ferrous metals.

In 2007, it submitted an application for authorisation to process and clean up waste electrical and electronic equipment (WEEE), becoming the first metal recycling company in Brussels to receive such authorisation.

In June 2013, the company added a third component to its business portfolio: grinding. “This expansion allows us to do away with the middle man between sorting and delivery to the factory or smelting plant. At the same time, we can be sure of the quality of our materials and guarantee their traceability.”

Today, B.R.Met employs 13 permanent staff, 5 temporary staff and around 30 part time staff. “The social approach is very dear to us”, says Caroline Vandebossche, who manages the SME with her husband.

Our strength: manual dismantling

Once the metal waste has been unloaded at the Haren site, the sorting operation begins. “Our speciality is manual dismantling”, says Caroline Vandebossche. “Admittedly it's more expensive in terms of time and labour, but it allows us to optimise material recycling. It improves the clean-up process, enables consistent grinding campaigns and ultimately ensures that the finest materials go to the smelting works. We look for quality, not quantity”. B.R.Met's competitors handle larger volumes, but they are less meticulous in their sorting thus resulting in a less satisfactory end result.

The next challenge will be to supply products derived from waste. B.R.Met is already very close to achieving this particularly in the copper sector.

But we would rather ensure that we are profitable in the long term by investing for the future.

Focus on Europe

The SME's clients are individuals, non-profit organisations, waste collectors or even certified companies looking for approved channels. B.R. Met works with large, highly-successful Belgian groups like Umicore, with which it has long enjoyed a trusting relationship.

Today, export accounts for 20% of the business and involves the four countries bordering Belgium (Netherlands, Germany, France and Luxembourg), however, Caroline Vandenbossche indicates that they are interested in Europe as a whole and confirms a desire to expand.

When it comes to foreign trade, however, B.R.Met favours Europe rather than exporting worldwide. "Selling further afield, for example in India or China, would undoubtedly provide us with increased turnover in the short term", admits Caroline Vandenbossche. "But we would rather ensure that we are profitable in the long term by investing for the future. We're afraid that in a few years, Europe will find itself with cutting-edge technology but without the raw materials to apply it, hence the importance of preserving our resources such as rare soils and precious metals."



A future in Brussels with a family atmosphere

Originally from Brussels, Caroline Vandenbossche has no plans to relocate. "Being based in the capital of Europe is extremely attractive in terms of image". It also has advantages on a logistics level. "Strict Belgian regulations allow quality recycling", she adds, underlining the invaluable support of COBEREC and Impulse.brussels (formerly Agence bruxelloise pour l'Entreprise) especially in regard to obtaining authorisation and permits.

For the time being, B.R.Met is focusing on its latest investment, the grinder, with a view to becoming highly efficient in this sector. Part of its current building is to be demolished and replaced by a passive construction, designed to facilitate loading and unloading by crane. This new construction is to cater for the higher containers used on the inland waterway system, an increasingly prized asset.

In the longer term, Caroline Vandenbossche and her husband dream of creating a research laboratory to improve recycling, based on the new products arriving on the waste market such as photovoltaic panels. "We have an entire range of items in stock obtained from dismantling for which we need either recycling technology or a marketing solution".

The couple's two children will join the family company when they have finished their studies. "That will allow us to make time to travel to meet new partners. Our children will also provide a new perspective on our investment policy. Eventually, it will be up to them to make the decisions... and not to make mistakes", concludes Caroline Vandenbossche.



Interview with
Bérengère Menart
Managing Director

- **Founded in 1961**
- **2 sites (headquarters at Dour in Belgium and a unit based in France)**
- **Number of employees: 40 (35 in Belgium and 5 in France)**
- **Turnover: EUR 4.5 to 5 million**
- **Export share: over 75% in 2013**
- **Active on the five major continents**
"Export" prize for Hainaut at the Trends Business Tour 2013

A complete partner for waste reclamation

Menart is a family company with 50 years' experience and know-how from 4 successive generations. Eager to illustrate its sustainable development policy, it designed its own manufacturing hall with low energy consumption and "passive"-approved offices, which it started using in 2011.

"Today, Menart is establishing itself as a solid technology partner for the reclamation of all kinds of waste, whether agricultural, food-processing, agroindustrial or urban, or even waste stemming from polluted ground and areas," explains Bérengère Menart. The company offers a wide range of specialist equipment for recycling, composting, shredding, turning and screening, as well as machines for roadside, green space and forestry maintenance.

In addition, the company has its own research department, which can support the client during the preliminary analysis of its needs in order to define, with its input, the most suitable solutions for it. Menart's engineers design all the machinery. Only parts cut with a laser and then folded are sub-contracted. These parts then come back to the workshops for assembly, welding, painting and the integration of electrical, electronic and hydraulic systems. Menart also provides transport, installation start-up, technical assistance and after-sales service.

Today, Menart is establishing itself as a solid technology partner for the reclamation of all kinds of waste.

From agricultural to professional

Menart's areas of business initially focused on the sale and repair of agricultural equipment. The first machines to be developed for composting were the result of a request by the Wallonia Region. Menart is creating a turner to enable manure to be composted at the edge of fields. In 1983, it developed an organic waste turner, from a manure spreader, then from a model that was entirely designed internally. "Our clients are farmers and green waste parks, which were created in Belgium in the 1980s," explains Bérengère Menart.

The product catalogue is expanding as a result of requests and Menart is turning towards a more professional range by offering machines with a larger capacity. At the same time and on a different scale, it is also looking at smaller structures, for example for landscape gardeners who have less waste to be treated.

The potential for another genre has been spotted following exports to countries that do not sort their waste at source, born from a need for a solution to isolate the organic part of waste. Menart has branched out by adding manual or semi-automated sorting lines to its screens and shredders.

Non-organic recyclable components are sent to suitable treatment centres, while the organic residue is kept on site with a view to being composted, purified and sold.

Flexibility and simplicity

"Flexibility is one of our strengths," explains Bérengère Menart. "We offer a series of standard machines, but we can also adapt them to our clients' needs. Our competitors, who are mainly German, Austrian and American, are more inflexible and less inclined to move away from their basic product."

"We also ensure that we offer a technology that is both innovative and simple. Our equipment is sturdy: it can withstand extreme weather conditions and operate in the most remote areas, like the Amazonian forest or desert regions. We ensure that we fit it with universal components so that the client can obtain spare parts locally."

Flexibility is one of our strengths.

On the five major continents

Originally from Tournai before establishing itself in Dour, Menart has always been able to find good fortune in Belgium both in terms of personnel and infrastructure. Bérengère Menart considers experience exchanges with the members of the Val+ cluster or Agoria to be rewarding, plus it benefits from synergies with the companies it comes into contact with through economic missions organised by the AWEX [Wallonia agency for export and foreign investment] or the Agency for Foreign Trade.

We also ensure that we offer a technology that is both innovative and simple.

Nowadays, Menart sells its equipment all over the world: Europe, the Middle East, North Africa, Oceania, Asia and the Americas. Over 75% of its turnover was attributable to export in 2013 although this share fluctuates greatly from one year to the next depending on the projects taken on. The company operates through agents, finding local distributors that it monitors and trains in order to ensure their independence.

Four years ago, Menart set itself the target of intensifying its network in Eastern Europe and Latin America. "The harvest has been rather fruitful and purchase orders continue to grow," says Bérengère Menart while showing us machines destined for Peru, Colombia, Ecuador, Vietnam and Bulgaria.

At the moment, Menart wants to consolidate its position and focus its efforts on expanding in sub-Saharan Africa. "At present, there is a passion for our solutions in the countries in this area."

In parallel with this geographical expansion, Menart's team of engineers is continuing to monitor technological advances in order to develop new innovative products.





Interview with
Philip
Van Caenegem
Business developer

- **Start-up created in 2010**
- **Based in Henri-Chapelle (Welkenraedt)**
- **Number of employees: 7**
- **Treatment capacity:**
10,000 tonnes of waste
- **Total investment in R&D:**
EUR 5 to 6 million
- **Export share: around 10%**
- **Holds 3 patents**

An innovative and unique method

Reprocover is the fruit of several years of research and development. Of Flemish origin, its founder Ludo Debergh chose to invest in Wallonia, in Welkenraedt, close to the borders between Belgium, the Netherlands and Germany.

Reprocover has developed a process to recycle and transform composite waste from thermosetting plastics (phenolics, polyesters, epoxy resins, PUR, etc.) and fibreglass waste into a new raw material, which is then used to create marketable products.

“The great advantage of this technique is its entirely cold pressure process, with almost no CO2 emissions,” says Philip Van Caenegem. After the raw waste has been ground and polyurethane has been added as a binding agent, the resulting wet emulsion is poured into a mould and then pressed under a weight of 200 tonnes. The finished product is ready in a few minutes.

“Reprocover is a one-of-a-kind company,” says Philip Van Caenegem. “It doesn’t recycle, it upcycles: we use waste as a raw material to manufacture finished products with high added value.” These products retain most of the qualities of the original composite material: resistance to extreme temperatures, shocks and fire, anti-rust, lightweight, anti-skid surface, etc.

Philip Van Caenegem adds that “the waste resulting from our own manufacturing process is also 100% recyclable and reusable, which is proof of the sustainable nature of our business. It’s the cradle-to-cradle principle.”



**It doesn’t recycle, it upcycles:
we use waste as a raw
material to manufacture
finished products with high
added value.**

100% Belgian supplies

The waste items used by Reprocover originate from both production waste and from end-of-life products (bathtubs, wind turbine blades, old kayaks, fuse boxes, etc.).

They are all of Belgian origin. "Eventually, we envisage extending our supply zone while remaining within a radius of 500 to 700 km." The solution would be to collaborate with foreign middlemen who would grind the waste in advance in order to limit its volume and the underlying transport costs.

Emanating from a variety of sectors, waste suppliers can have very different profiles. Some, concerned with their environmental impact and their image, are prepared to pay money in order for their waste to be recycled. Others choose this path provided that it does not cost more than sending the waste to the incinerator or landfill.

In the service of the circular economy

Reprocover now offers three product ranges. Its area of expertise is water distribution: designing sewer plates, fire hydrant pots, lids for rainwater tanks and septic tanks, etc. It then became known within the rail sector, thanks to its covers for cable ducts and level crossing slabs. Finally, it now also markets street furniture accessories such as flower boxes, ash trays, letter boxes, bins, etc.

Reprocover exports around 10% of its production to clients in Denmark, the Czech Republic, the Netherlands and France. The company is currently looking at potential in Slovenia, Italy and the United Kingdom and also has Turkey in its sights.

"Circular economy projects can open markets up to us," says Philip Van Caenegem, stating that Reprocover is receiving increasingly frequent contacts in this area.

Thus, Dutch electric companies want to re-use their own bakelite waste in order to guarantee the renewal of disused installations across the whole network, rather than bury it in the ground. Reprocover is going to create gas pots or other items for them.

In the same vein, the nautical sector in France hopes to recycle polyester from production waste and the many end-of-life boats awaiting dismantling. The idea is to use this to make level crossings.



The future is in recycling

The propagation of sometimes strict recycling standards in many sectors indicates the success of Reprocover. "Legislators should increase the costs of incineration and dumping to encourage recycling even more" says Philip Van Caenegem.

Belgium is fairly advanced in terms of recycling and demonstrates a positive attitude.

However, he adds that "Belgium is fairly advanced in terms of recycling and demonstrates a positive attitude."

Reprocover is striving to increase its production volume and to progress from start-up status to that of a genuine industrial company. The recycling of thermosetting materials is an absolute priority for the composites and waste treatment sectors. Several initiatives have already come into being, but without many concrete results. "We feel that we have a unique concept and that we have the ambition to develop a thermosetting materials and fibreglass recycling centre for Europe," says Philip Van Caenegem. The transfer of its skills to neighbouring countries through partnerships would be one way to achieve its goals.

We have the ambition to develop a thermosetting materials and fibreglass recycling centre for Europe.





Interview with
Paul De Bruycker
CEO

- **Founded in 1985**
- **Head office: Mechelen**
- **Consolidated annual turnover:
EUR 520 million**
- **Number of employees: 1,700**
- **Historical investment in systems:
EUR 1.3 billion**

Indaver was established 30 years ago as a public-private partnership (PPP) responsible for developing a state-of-the-art processing system that offered an environmentally and economically viable solution for the industrial and hazardous waste generated by the chemical cluster in the Port of Antwerp.

Today, the company has grown into a leading European player in the field of sustainable waste management. The focus is on environmentally friendly management and processing of both industrial and hazardous waste and domestic and similar industrial waste, focusing on maximum recovery of energy and materials for the benefit of the customer.

Indaver concentrates on two types of customer: firstly, customers from the European industrial market operating in the pharmaceutical, (petro)chemical and metallurgy sector. Paul De Bruycker adds that "if persistent problems

with complex waste matter occur elsewhere in the market, these organisations can also turn to Indaver and we will help them on a project basis." Secondly, the company concentrates on waste processing for cities and municipalities in Belgium, the Netherlands and Ireland. These public administrations are assisted by various PPP structures, offering a highly flexible approach.

The expansion from a purely Belgian company to a European player was driven by an increase in demand, coupled with the economic rationale of economies of scale.

Total Waste Management concept

Indaver has developed its own unique service concept. The "Total Waste Management" model is based on three, interconnected pillars: facilities & technology, ICT systems and people. The strong interplay between these three elements is what makes this approach so unique.

The company has a European network of "world-skilled plants", the main ones being located in Belgium, the Netherlands, Germany and Ireland. The plants in Antwerp and Doel, which process industrial and hazardous waste and domestic and similar industrial waste respectively, are the largest in the group.

Paul De Bruycker explains: "To be able to offer the best possible solution, it's important to have not only high-tech equipment, but also a proper knowledge of the waste streams, so that you can offer the right solution for each stream." The company has invested in data management systems which, as well as enabling waste-related data to be recorded, also allow customers to monitor their waste streams online.

In addition, Indaver can count on a team of highly-qualified people who strive for continuous improvement. "For us, signing a contract is merely the starting point for an improvement project aimed at achieving the best possible, tailor-made solution for the customer", says Paul De Bruycker.

Indaver has developed its own unique service concept. The "Total Waste Management" model is based on three, interconnected pillars: facilities & technology, ICT systems and people.

Taking a holistic view of waste management, the company is helping to create a society in which materials form a sustainable, closed cycle, in other words: a circular economy.

Sustainable solution

Indaver regards waste as a valuable raw material. Taking a holistic view of waste management, the company is helping to create a society in which materials form a sustainable, closed cycle, in other words: a circular economy. In its solution, it seeks to minimise the quantity of residue sent to landfill.

Around 5 million tonnes of waste are managed each year by Indaver, the bulk of which is sustainably recycled to produce energy and materials.

Indaver's waste management system works like this: the first stage focuses on material recycling. When this is not possible, or the maximum quantity of material has been recycled, the process moves on to energy recovery. This involves producing electricity, which is used on the company's site and delivered to neighbouring companies and "district heating networks". In addition, electricity is generated firstly for use in the company's own buildings and systems, and secondly for domestic energy consumption. The majority of the bottom ash created during the process is recycled. Finally, the residual stream remaining after this is safely disposed of.

This process means that 40% of incoming waste streams are used for materials recycling and 40% for waste-to-energy applications. The residual fraction is kept to a minimum of 20%.

Permanent base in Belgium

Paul De Bruycker strongly believes in a cluster approach "because this allows for synergies and efficiency gains in

that the companies are able to offer neighbouring businesses their services quickly, competitively and sustainably. Today, Indaver is utilising this approach at its site in the Port of Antwerp. By accepting waste from neighbouring companies, and then delivering steam back to them, Indaver is demonstrating a successful synergy which benefits both parties."

In the circular economy of tomorrow, this approach will become even more important. This is one of the main reasons why Indaver continues to invest in optimising its energy production in Beveren and Antwerp, "where there is great potential to form an energy cluster."

The future

The company's ambitions for the future are twofold. Firstly, Indaver wants to become the leading service provider for hazardous waste in Europe. To achieve this, the company is systematically increasing its processing capacity and commercial activities throughout Europe, through organic growth and carefully considered acquisitions. It is also building new systems for dedicated molecule valorisation, i.e. the recovery of basic molecules from residual streams, so that they can be reused as primary raw materials.

Secondly, it is working to further optimise its waste-to-energy capacity, by developing its facilities and investing in increasing the recovery percentage for residual fractions.

Indaver intends to firmly establish itself as a gatekeeper and enabler of the circular economy.



TRACTEBEL Engineering **GDF SUEZ**



Interview with
Emmanuel Van Vyve
Renewable Energy
Product Manager

- **Founded in 1862**
- **Headquarters in Brussels**
- **22 regional offices throughout the world**
- **3,000 employees, a third of which in Belgium**
- **Turnover in 2012: EUR 469 million**
- **More than 47% of business for export (outside of Belgium and France)**
- **Biomass projects in 20 countries with a total capacity of 6.5 GW**

Tractebel Engineering's extensive experience in the engineering of conventional power plants has enabled it to expand into the waste-to-energy field.

Engineering and consultancy, energy and infrastructure

Tractebel Engineering's history, which dates back more than 150 years, consists of the business of its four parent companies: supplying gas and electricity, and public transport. It has been punctuated by numerous mergers, the most significant of which, without doubt, took place in 1986 between Tractonel and Electrobél resulting in Tractebel S.A. Today, the company is part of the Energy Services branch of the international industrial group GDF Suez.

Tractebel Engineering provides engineering and consultancy services in all areas of the energy and infrastructure sectors, both traditional and renewable. It offers its clients, which are both private and public, reliable and innovative solutions and provides them with support throughout a project's life cycle. Firstly, Tractebel Engineering establishes the client's needs, together with the latter, and the type of equipment required, then it carries out a feasibility study. In a second phase, it prepares technical specifications and selects contractors. During the third stage, which involves monitoring the execution of the project, Tractebel Engineering acts as a consultant engineer to approve the construction of the installation.

Its headquarters are in Brussels and it has a further 21 regional offices throughout the world. "Energy activities are moving more and more from Europe to the international stage, onto the African, Asian and South American continents which house the growth markets. Our export share is witness to this: more than half of our projects are carried out abroad and this share will only increase," explains Emmanuel Van Vyve. Tractebel Engineering has contacts in more than 110 countries throughout the world.

From conventional to biomass

Tractebel Engineering has been actively involved in the renewable energy sector, and in particular biomass, for more than 15 years. "Electrobél, which is also a subsidiary of the GDFSUEZ group, and by implication Belgium, has played a pioneering role, now providing Benelux with an energy farm for coal which is largely converted to biomass," says Emmanuel Van Vyve.

In developing countries, waste management is being modernised.

Biomass is defined as the biodegradable part of waste of biological origin, stemming from agricultural and forestry activities, but also from domestic and industrial waste. "Tractebel Engineering's extensive experience in the engineering of conventional power plants has enabled it to expand into the waste-to-energy field." The objective pursued is two-fold: to find solutions that are both effective and environmentally friendly.

In developing countries, waste management is being modernised: little by little, the dumping of waste is giving way to methods to turn non-recyclable elements into energy. "The technology chosen depends largely on the chemical composition of the biomass available," says Emmanuel Van Vyve. In this sector, the majority of Tractebel Engineering's clients are local authorities, emanating for the most part from the public sphere (ministries, towns, provinces, etc.), responsible for waste management policy.

Tractebel Engineering is able to monitor the project as a whole, from design to installation, by way of peripheral studies (connection to the network, environmental impact, etc.). Proud of its multidisciplinary skills, it still does not hesitate to enlist the help of its local partners in order to benefit from their expertise. "Their contribution may turn out to be invaluable, in particular their knowledge of the market but also in regard to certain technical aspects. In addition, they help to make our services competitive." Tractebel Engineering has already participated in around sixty biomass projects in 20 different countries with a total capacity of 6.5 GW.

"The reason why we chose Brussels for our base is historical," explains Emmanuel Van Vyve. "For a company with an international outlook, it is an asset to have our headquarters in Brussels." Admittedly, labour costs in Belgium are high, but this is largely offset by high productivity due to the expertise of engineers trained at the country's universities. Belgium also benefits from an excellent image abroad in terms of the treatment and recycling of waste and the conversion of waste to energy.

Belgium also benefits from an excellent image abroad in terms of the treatment and recycling of waste and the conversion of waste to energy.

Focus on Africa and central Asia

Tractebel Engineering is keen to continue to expand its business on the international stage. Africa is now experiencing a number of economic developments, in particular with regard to waste treatment and the conversion of waste to energy. This opportunity would solve two problems at the same time: on the one hand, eliminating the harmful health consequences of piling up waste and, on the other hand, meeting the increase in demand for energy. The use of agricultural waste would thus be able to power rural electrification networks. As for towns, they would need infrastructure in order to collect, sort and treat domestic and industrial waste. "In Africa, we have the advantage of knowing the language, because a lot of the countries are French-speaking," Emmanuel Van Vyve adds.

There is also considerable potential for Tractebel Engineering in central Asia. The urban heating systems, which are salutary during the harsh winters suffered in the Caucasus, are dilapidated. Work to upgrade these systems is essential and could possibly involve cogeneration technologies using locally-available biomass.

According to Emmanuel Van Vyve, biomass and the conversion of waste to energy, in particular, still have a good future ahead of them and will continue to grow. "The resources required are available locally and in an almost endless supply. This industry also has a great advantage, compared to wind energy and photovoltaics, of being able to provide energy continually."





Interview with
Serge Montagne
Director

- **Founded in 1991**
- **Member of the Holcim Group**
- **Based in Seneffe**
- **Turnover in 2013: EUR 13.2 million**
- **350,000 tonnes of waste co-processed per year**
- **Number of employees: 50**

An asset born from a disadvantage

As one of the cement plants in the Holcim group, the Obourg site uses the wet process in its production due to the nature of its chalk deposit. The need to dry the slurry gives the company a structural disadvantage in terms of thermal energy consumption. "This disadvantage has forced the group to step up its creativity to find an alternative solution," explains Serge Montagne.

In fact, this gave rise to Geocycle (formerly Scoribel s.a.), a business unit specialized in the pre-treatment and co-processing of industrial waste at the cement plant that can be used as substitution fuels or raw materials. The Belgian organisation Geocycle s.a. is now a subsidiary of the Holcim group in its own right.

Based in Seneffe, it delivers the Obourg facilities first and foremost, due to its geographical proximity, but it also works in a cluster with Geocycle France. Together they supply the network of Holcim cement plants spread out across northern and eastern France.

European sourcing

The 350,000 tonnes of waste treated per year by Geocycle is mainly of industrial origin. "All waste generators are potential clients provided the waste is compatible with the cement manufacturing process and the applicable regulation and permits," explains Serge Montagne. Geocycle also developed a business relationship with intermediaries, in other words waste collectors.

Originating from well-diversified sectors (chemistry, pharmaceutical, automotive, steel, etc.), the waste that enters Geocycle's facilities is solid, pasty or liquid and is either in bulk or packaged.

More than 60% of the streams are of Belgian origin. Geocycle also imports a considerable amount of French waste and undertakes regular exchanges with Geocycle France in order to optimise the flows and stocks, and to ensure the service continuity to the customers. "Today, our market areas also extend to six other countries: the Netherlands, Germany, Italy, Ireland, the United Kingdom and Luxembourg," says Serge Montagne.

Our technique: co-processing

"Our trademark is co-processing, the simultaneous recovery of material and energy," explains Serge Montagne. "This double recovery gives us a double advantage. On the one hand, it allows us to lower traditional energy/material consumption in our cement plants and the global emissions at the stack, thereby offering an ecological, sustainable and competitive solution to waste treatment. On the other hand, absolutely all of the material produced from the waste is integrated into the cement. There is no residue."

Thus, Geocycle stands out from the sectors against which it competes: incineration and landfilling.

**Our trademark is co-processing,
the simultaneous recovery of
material and energy.**

Flexibility and professionalism

The industrial setup within Holcim Belgium and Holcim France, including the Geocycle facilities, provides solutions that are flexible and adapted to what is sometimes very technical waste. "We have a portfolio of solutions to offer our clients, thanks to installations dedicated to each specific waste stream and thanks to the important know how of our people." The pre-treatment platform in particular produces a stabilized alternative fuel - impregnated sawdust - for the cement kilns from a wide variety of wastes.

We have a portfolio of solutions to offer our clients, thanks to installations dedicated to each specific waste stream and thanks to the important know how of our people.

Geocycle's professionalism is demonstrated by its certifications (ISO 9001, ISO 14001) and accreditations (ISO 17025). Strict criteria for the pre-qualification and acceptance of waste, complemented by continuous inspections, guarantee safety throughout the process, performance of the waste recovery and, ultimately, the production of a high-quality cement that complies with environmental requirements.

In addition, Geocycle is one of the pioneers in its business segment in Belgium to have been certified as "CO₂ neutral".

Geocycle is one of the pioneers in its business segment in Belgium to have been certified as "CO₂ neutral".

Looking to household waste

Ever eager to diversify its waste portfolio and service range, Geocycle is striving to expand its business into household waste, an area with considerable hidden potential.

The organisation is also involved in a project promoted and co-financed by the Walloon Region. The so called Minerve project operates on the basis of a consortium between a research centers, universities and industrials, and aims at developing the mining of several landfill sites throughout Belgium. "A landfill is a veritable "goldmine", overflowing with energy resources and reusable materials. Taking on this project would allow Geocycle to explore new waste resources," concludes Serge Montagne.





NV **REMO MILIEUBEHEER**



Interview with
Guido Hermans
Director
Yves Tielemans
Business Unit Manager
Closing the Circle /
Remo Milieubeheer NV



- **Head office: Hasselt**
- **Operations site: Houthalen-Helchteren**
- **Consolidated annual turnover: EUR 150 million**
- **Number of employees: 500**
- **Historical investment in landfill facility: EUR 10 million**
- **Historical investment in “Closing the Circle” project: EUR 7 million**
- **Planned investment in “Closing the Circle” project: EUR 230 million**

REMO Milieubeheer NV is part of Group Machiels and specialises in the management of landfilling and temporary storage facilities for industrial waste. The company has global operations, with its head office in Hasselt and a second base in Chile. 50% of its consolidated turnover is generated abroad.

Activities: from a traditional landfill facility to the “Closing the Circle” project

Yves Tielemans neatly sums up the company’s perspective: “today”, “tomorrow” and “the day after tomorrow”.

“Today” refers to operating the landfill for industrial waste in Houthalen-Helchteren, which stores around 300,000 tonnes of waste each year. The company prefers the term “waste storage facility” over “landfill site” because of the

site’s environmental activities. Yves Tielemans explains: “The waste is neatly wrapped in film and environmental pollution is prevented by leak detection systems. In addition, the landfill gas is converted to electricity and heat by gas engines. Finally, the leachate, i.e. the wastewater, is purified into clean water.”

“Tomorrow” refers to the period from mid-2014 onwards, when the company will start operating a temporary storage facility. Specifically, this means that waste streams which cannot be fully processed at the present time will be stored separately, with a view to being recycled at a later date.

This activity is a key part of the new “Enhanced Landfill Mining” concept (ELFM), whereby materials and energy are recovered from historical landfill sites to the fullest extent possible, taking an integrated approach. The term was launched in 2008 by Group Machiels and its meaning has evolved through the Group’s work with its partners.

By using only the best available technology, the project not only helps reduce CO₂ emissions, but also offers a virtually zero-residue solution.

“The day after tomorrow” will start at the end of 2016 and covers the “Closing the Circle” project. This is the first industrial test case for the ELFM concept at the REMO site in Houthalen-Helchteren. It involves using a demonstration system to reuse the stored waste. The system will be assessed at regular intervals and adapted in line with the

Following a successful test case, the company intends to implement its Enhanced Landfill Mining industrial consortium worldwide on a large scale.

best technology available at that time. The site currently stores more than 16 million tonnes of waste and the entire process is expected to last 20 years.

Roughly half the waste can be recycled. Of the remainder, the majority does have a sufficiently high calorific value to be converted to sustainable energy. Energy will be recovered using plasma technology, which has the advantage of generating not only energy but also vitrified slag. This slag can then be refined to produce high-quality construction materials. Once full use has been made of the waste, REMO will transform the site into a sustainable nature reserve.

By using only the best available technology, the project not only helps reduce CO₂ emissions, but also offers a virtually zero-residue solution. The residual fraction will be kept to a minimum of 10%. "It's pretty much the perfect waste solution", says Yves Tielemans.

Pioneer

Ever since it was founded, REMO Milieubeheer NV has played a pioneering role in the development of advanced environmental techniques in the sphere of waste processing and recycling. In its quest for new technologies, it is guided chiefly by sustainability concerns and the greatest possible respect for the environment. The company has also made a vital contribution to the implementation of more rigorous waste legislation and policy.

Guido Hermans provides an example to illustrate this: "When we obtained a licence in 1981 for the first industrial landfill site, there was no legislation in Flanders and OVAM, the Flanders Public Waste Agency, was only established in the same year. Actually, the first legislative texts which dealt with the design and layout of landfill sites were a copy of our licence." Today, the REMO storage facility is considered state-of-the-art, not just in Flanders but worldwide.

With the "Closing the Circle" project the company is once again positioning itself as a pioneer. The belief that landfill sites are a source of valuable raw materials is not the only innovation; the project itself is regarded as the keystone of Flemish waste materials policy and is a guiding principle in the transition to a low-carbon, circular economy in which the materials cycle is complete.

Partnerships are the key to success

When asked about the competitive advantage, Yves Tielemans talks about the consortium mindset that exists with-

in the organisation and, more specifically, the belief in the "quadruple helix model". This model involves innovative activities being developed in cooperation with other players from various backgrounds, such as government authorities, knowledge institutions, industrial and social players. "We are convinced that technology and the economy are not enough to achieve sustainable and successful projects, but that it is crucial to have the broadest possible support base."

The quadruple helix model, incidentally, was used when designing the ELFM concept, first in Flanders in 2008 and, since 2013, within the European context. The European Enhanced Landfill Mining Research Consortium (EURELCO) currently has 40 members from 13 Member States.

Flemish support

In 2011 a three-year study was launched into certain innovative aspects of the "Closing the Circle" project, such as the separation of the mined waste, plasma technology and using waste streams to produce high-quality construction materials.

The study has a budget of EUR 6 million, of which EUR 2.5 million is being financed by the Flemish Agency for Innovation by Science and Technology (IWT) in the form of innovation support.

The future

Following a successful test case, the company intends to implement its Enhanced Landfill Mining industrial consortium worldwide on a large scale. Its aim is to provide an answer to the dual challenge presented by a growing waste mountain and, on the flip side, a shortage of raw materials and land.

The market potential is huge: in the European Union alone there are estimated to be between 150,000 and 500,000 historical landfill sites which are capable of supplying a substantial stream of secondary materials and energy.

We are convinced that technology and the economy are not enough to achieve sustainable and successful projects, but that it is crucial to have the broadest possible support base.



Interview with
Michel Guillaume
Director of
Sustainable
Development

An international and multidisciplinary group

CFE is a Belgian industrial group based in Brussels and divided into six areas of expertise: marine engineering, construction, rail and road, multitechnics, real estate and PPP concessions. Each pillar is catered for by numerous companies giving the Group a presence both in Belgium and abroad. "The number of synergy models between the different divisions is increasing and opens the group up to more development opportunities," says Michel Guillaume, Director of Sustainable Development for the CFE Group.

CFE benefits from more than 130 years' experience. Operating railway lines and tramways in its early years, the group has expanded its range of activities over time and now has two core businesses: construction and dredging. CFE, which has had full ownership of DEME, one of the world's largest hydraulic works companies, since the end of 2013, is now in turn controlled by Ackermans & van Haaren following its acquisition of a 60.39% stake.

Historically, CFE has been active in Benelux and Eastern Europe, but it has also expanded into Africa, Asia and the Middle East through local subsidiaries. Today, 15% of its turnover comes from projects carried out abroad. The integration of DEME will result in a considerable increase in these statistics as the latter exports 90% of its services around the world.

- **Group founded in 1880**
- **Headquarters in Brussels**
- **Purchased 50% of DEME in 2013**
- **Active on the five major continents (including DEME)**
- **10,000 employees (including DEME)**
- **Turnover: EUR 4.4 billion in 2013 (including DEME)**
- **Growth: 10% in 2013 (not including DEME)**
- **Export share: around 15% (not including DEME)**
- **Listed on the Euronext stock exchange**



The number of synergy models between the different divisions is increasing and opens the group up to more development opportunities.

The most comprehensive construction company

Construction is CFE's longest-established business. "We are Benelux's most comprehensive company for all activities relating to building, from design to maintenance," says Michel Guillaume. "CFE has a specialist company for each activity." The multitechnics division in fact comprises no fewer than 14 companies and benefits from extensive synergies (electricity, air-conditioning, automation, etc.)

CFE has a specialist company for each activity.

Michel Guillaume points out three more of CFE's strengths. "Firstly, we benefit from a high-performance internal research department specialising in concrete." Secondly, each building structure is provided with a team of special technical engineers. Thirdly, he underlines the importance of the PPP division (Public-Private Partnership), which enables CFE to respond to major calls to tender.

Sustainable development involving construction site waste

For several years, CFE has had a sustainable development division, which has drawn up a coherent environmental policy coupled with numerous specific measures.

It has created, among other things, a construction site waste management plan. The core elements of this plan comply with the standards put in place by the 3 Regions. Certain rules are then refined depending on the client's specific demands and the nature of its order.

In order to comply with the ISO 14001 standard (in relation to the implementation of an environmental management system), the issue of sorting and removing waste appears on the agenda at each preparatory meeting for setting up a construction site. The subcontractors selected must be registered with the Region in question or be approved in the case of hazardous products.

"In light of the diversity of the workforce operating on our construction sites, it is essential that personnel are provided with information and training," says Michel Guillaume also highlighting language difficulties. The "big bags" and containers are clearly identified and are fitted with signs illustrating the permitted type of waste.

If the construction site wants to be BREEAM-certified (Building Research Establishment Environmental Assessment Methodology) and obtain a good score, it must

demonstrate a minimum percentage of recycled and re-used waste. The volume of waste generated is monitored monthly and this is then compared with the initial targets set.

CFE is a member of numerous business associations such as Greenwin (of which Michel Guillaume is a co-founder and administrator). It is also a member of the ADEB (Association des Entrepreneurs belges de grands travaux [Association of Belgian Entrepreneurs for Large-Scale Construction Projects]), which is currently looking at a common approach to waste management.

In terms of the environment, we would also like to highlight the fact that the 100% acquisition of DEME gives CFE a new dimension. Ecoterres/DEC, a 75%-owned subsidiary, is active in the clean-up and decontamination of soils, storage of polluted mud, processing of household and industrial waste, restoration of lagoons, land, river areas and former industrial sites.

Making profitability a priority

In the construction sector, Michel Guillaume sees prefabrication becoming more important in the coming years. "The potential profit is enormous, in both environmental and financial terms." Ultimately, transport only represents a small portion of the whole cost and this methodology would mean work was not dependent on weather conditions. The development of BIM (Building Information Model) programmes would allow plans to be designed in 3D. These could be broken down into several production units that could then be assembled in different factories.

The potential profit is enormous, in both environmental and financial terms.

Profitability is Michel Guillaume's hobby-horse. "Ensuring that you make an acceptable amount of profit is a real challenge for the construction sector." We want to boost our competitiveness by better standardising our methods and the products we sell in property developments. "Reducing production costs is an everyday exercise," concludes Michel Guillaume, mentioning, in this regard, the innovation prize awarded within the CFE group every two years to the best "small construction site ideas" envisaged to improve work.

Reducing production costs is an everyday exercise.





**DIRECTORY OF
COMPANIES**

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
A & S ENERGIE	8780	OOSTROZEBEKE	Flanders	www.a-s-energie.be			•	
A.C.K. AQUA CONCEPT BENELUX	9940	EVERGEM	Flanders	www.ack-aquaconcept.com		•		
A.STEVENS & C° S.A.	1000	BRUXELLES	Brussels	www.stevensrecycling.be	•	•		
AA IJZERLAND CVBA	2160	WOMMELGEM	Flanders		•	•		
ABA RECYCLING	7822	GHISLENGHIEN	Wallonia	www.abarecycling.be	•	•		
ABESIM	1301	BIERGES	Wallonia	www.abesim.com	•			•
AC RECYCLING	3210	LUBBEEK	Flanders	www.celis.be	•	•	•	
ACLAGRO	9032	WONDELGEM	Flanders	www.aclagro.be	•	•		
ADAMS POLENDAM	2340	BEERSE	Flanders	www.adams-massenhoven.be	•	•		
ADENSOL	9120	BEVEREN-WAAS	Flanders	www.adensol.eu	•			
ADVANCED DESIGN OF RECYCLING MACHINES (AD REM)	8930	MENEN	Flanders	www.adrecyclingmachines.com		•	•	
AENERGYES S.A.	7904	PIPAIX	Wallonia	www.aenergyes.eu	•	•	•	•
AERTS JAN CONTAINERDIENST	2160	WOMMELGEM	Flanders	www.aerts-containers.be	•	•		
AFFILIPS N.V.	3300	TIENEN	Flanders	www.afilips.com		•		
AGROSTAR	1348	LOUVAIN-LA-NEUVE	Wallonia	www.agrostar-sa.com		•	•	•
ALERIS ALUMINUM DUFFEL B.V.B.A.	2570	DUFFEL	Flanders	www.aleris.com		•		
ALFAMET B.V.B.A.	9200	DENDERMONDE	Flanders	www.alfamet.be	•	•		
ALGROBO	9270	LAARNE	Flanders	www.algrobo.eu	•			
ALL RECUP N.V.	9140	TEMSE	Flanders		•	•		
ALMADIUS ENGINEERING	5100	JAMBES	Wallonia	www.almadius.be	•			•
ALTECH	4300	WAREMME	Wallonia	www.hydropur.be	•	•		
ALTRAN	1150	BRUXELLES	Brussels	www.altran.be	•	•	•	
ALVIN ALAFRED & Cie S.A. (ALVIN)	7012	JEMAPPES	Wallonia	www.alvinrecyclage.be	•	•		
AMACRO	1654	HUIZINGEN	Flanders	www.amacro.be	•	•		
AMB-ECOSTERYL	7012	JEMAPPES	Wallonia	www.ecosteryl.net	•	•		
AMTRAD ENVIRONMENTAL	7170	BOIS-D'HAINÉ	Wallonia	www.amtrad.be	•			
ANTWERP TANK CLEANING	2030	ANTWERPEN	Flanders	www.vanloon.be	•	•		
ANTWERPSE OUD-PAPIER CENTRALE	2660	HOBOKEN	Flanders		•	•		
APERAM STAINLESS EUROPE	6200	CHATELET	Wallonia	www.aperam.com		•		
APPAREC	2830	TISSÉLT-WILBROEK	Flanders	www.coolrec.com		•		
APPLITEK N.V.	9810	NAZARETH	Flanders	www.applitek.com			•	
AQUA - S.I.I.C.	1450	CHASTRE	Wallonia		•			
AQUALE	5380	NOVILLE-LES-BOIS	Wallonia	www.aquale.com	•			
AQUAPOLE	4000	LIEGE	Wallonia	www.aquapole.ulg.ac.be	•			•
AQUAPROCESS	4420	SAINT-NICOLAS	Wallonia	www.aquaprocess.eu	•			•
ARCADIS BELGIUM	1000	BRUXELLES	Wallonia	www.arcadisbelgium.be	•	•	•	•
ARETHUSA BELGIUM	4607	DALHEM	Wallonia	www.arethusa.be	•			
ARTECHNO	5032	GEMBLOUX	Wallonia	www.artechno.be		•	•	

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
ASSAINISSEMENT DECOTTIGNIES	7623	RONGY	Wallonia	www.vidange2000.be	•	•		
ASTRA SERVICES	4651	BATTICE	Wallonia	www.astraservices.be	•			
ATELIERS DE CONSTRUCTION DE HERSTAL	4040	HERSTAL	Wallonia	www.ac-herstal.com	•			
ATMOSPHERIC TRANSPORT MODELLING FOR PROFESSIONAL APPLICATIONS	1400	NIVELLES	Wallonia	www.atmpro.be				•
ATRAVET	9160	LOKEREN	Flanders	www.atravet.be	•	•		
AURUBIS BELGIUM N.V./S.A.	1000	BRUXELLES	Brussels	www.aurubis.com		•		
BALTEAU	4141	LOUVEIGNE (SPRIMONT)	Wallonia	www.balteau.be	•			•
BAM Wallonia	4053	EMBOURG	Wallonia	www.bamwallonie.be	•	•		
BARCHON METAL VANNERUM S.A.	4400	FLEMALLE	Wallonia	www.metalsrecycling.be	•	•		
BEL FIBRES S.A.	7022	HYON	Wallonia	www.belfibres.be	•	•		
BELGIAN RECYCLE NETWORK	9308	HOFSTADE (O.-VL.)	Flanders	www.bouwafvalzak.be	•			
BELGIAN SCRAP TERMINAL N.V.	2830	WILLEBROEK	Flanders	www.belgianscrapterminal.com	•	•		
BENVITEC Wallonia	6220	FLEURUS	Wallonia	www.group-benvitec.be	•			•
BEP EUROPE N.V. - E-RATIONAL ORC SOLUTIONS	8200	BRUGGE	Flanders	www.E-Rational.net			•	•
BESIX - SANOTEC	1200	BRUXELLES	Brussels	www.besix.com	•	•	•	•
BIO OIL RECYCLING	8200	BRUGGE	Flanders	www.bio-oil-recycling.be	•	•		
BIOMASS CENTER	8900	IEPER	Flanders	www.biomasscenter.be			•	
BIOMASS SOLUTIONS	4690	GLONS	Wallonia	www.biomass-solutions.be			•	
BIONERGA	3530	HOUTHALEN-HELCHTEREN	Flanders	www.bionerga.be		•	•	
BIOTERRA	3660	OPGLABBEEK	Flanders	www.bioterra.be	•	•		
BLC-GROUP	9600	RONSE	Flanders	www.blcgroup.be	•	•		
BODEN METALEN	3540	HERK-DE-STAD	Flanders	www.bodenmetalen.be	•	•		
BONGAERTS RECYCLING N.V.	3990	PEER	Flanders	www.bongaertsrecycling.be	•	•		
BRACKE MARC B.V.B.A.	9270	LAARNE	Flanders		•	•		
BREMCON	2070	ZWIJNDRECHT	Flanders	www.bremcon.be	•	•		
BRUCO CONTAINERS	2110	WIJNEGEM	Flanders	www.brucocontainers.com	•	•		
BRUSSELS RECYCLING METAL S.A.	1130	BRUXELLES	Brussels	www.brmet.be	•	•		
BELGIAN SCRAP TERMINAL (BST)	4480	ENGIS	Wallonia		•	•		
BSV N.V.	8530	HARELBEKE	Flanders	www.bsv-nv.be	•	•		
BUCHEN INDUSTRIAL SERVICES	7170	MANAGE	Wallonia	www.buchen.net	•			
CABAY TRANSPORT	7110	HOUDENG-GOEGNIES	Wallonia	www.cabaytransport.be	•	•		
CAMPINE RECYCLING N.V.	2340	BEERSE	Flanders	www.campine.be		•		
CAPAX	1861	WOLVERTEM	Flanders	www.capax.be		•	•	
CAPIAU RECYCLING N.V.	9160	LOKEREN	Flanders	www.capiaurecycling.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
CARMEUSE	5300	ANDENNE	Wallonia	www.carmeuse.be		•	•	
CASIER RECYCLING N.V.	8540	DEERLIJK	Flanders	www.casier.com	•	•		
CBR CIMENTERIES, HEIDELBERGCEMENT GROUP	1170	BRUXELLES	Brussels	www.cbr.be	•	•	•	
CEBEDEAU	4000	LIEGE	Wallonia	www.cebedeau.be	•			
CELABOR	4650	CHAINEUX	Wallonia	www.celabor.be	•			
CERTECH	7180	SENEFFE	Wallonia	www.certech.be	•	•		
CFE	1160	BRUXELLES	Brussels	www.cfe.be	•	•	•	•
CHANTIER DE RECUPERATION DE WASMUËL	7390	WASMUËL	Flanders		•	•		
CHAP-YT	2980	ZOERSEL	Flanders	www.chap-yt.eu	•	•		
CHEMIRON CARBON	7181	FELUY	Wallonia	www.chemvironcarbon.com	•			•
CLARFLOK	4219	AMBRESIN	Wallonia	www.clarflok.be				•
CLEAN ENERGY INNOVATIVE PROJECTS	1654	HUIZINGEN	Flanders	www.renewableheat.be			•	
CLOSE & FILS S.A.	4032	CHENEE	Wallonia		•	•		
CLUSTER TECHNOLOGIE WALLONNE ENERGIE - ENVIRONNEMENT ET DEVELOPPEMENT DURABLE	4020	LIEGE	Wallonia	www.clustertweed.be		•		
CMK S.A./INSTAZORB	1150	BRUXELLES	Brussels	www.instazorb.eu	•			
COBEPEX	4020	LIEGE	Wallonia	www.cobepex.be	•			
COGAL	9100	SINT-NIKLAAS	Flanders	www.cogal.be		•		
COGETRINA	7522	MARQUAIN	Wallonia	www.dufour.be	•	•		
COLIMETALS B.V.B.A.	2310	RIJKEVORSEL	Flanders		•	•		
COMET TRAITEMENTS S.A.	6200	CHÂTELET	Wallonia	www.groupecomet.com		•		
CONNECT GROUP	8970	POPERINGE	Flanders	www.connectgroup.com			•	
CRAENHALS METAL TERMINAL N.V.	2830	WILLEBROEK	Flanders	www.cmtbelgium.com	•	•		
CTP CENTRE TERRE & PIERRE	7500	TOURNAI	Wallonia	www.ctp.be	•	•	•	
CURITAS N.V.	1930	ZAVENTEM	Flanders		•	•		
DE BREE SOLUTIONS	9990	MALDEGEM	Flanders	www.debree.be	•	•		
DE COCKER GEERT B.V.B.A.	9820	MERELBEKE	Flanders		•	•		
DE CONINCK NV	3020	HERENT	Flanders	www.de-coninck.be	•	•		
DE COSTER DOMINIQUE	3530	HOUTHALLEN- HELCHTEREN	Flanders	www.decosternv.be	•	•		
DE KNOP RECYCLING SPRL	1080	BRUXELLES	Brussels	www.deknop.be	•	•		
DE KOCK E.	3090	OVERIJSE	Flanders	www.dekock.info				•
DE MEUTER G&A	1740	TERNAT	Flanders	www.demeuter.be	•	•		
DE NEEF CHEMICAL PROCESSING	2220	HEIST-OP-DEN-BERG	Flanders	www.dncp.be		•		
DE ROOY A. & ZOON N.V.	2900	SCHOTEN	Flanders		•	•		
DE SAEDELEIR PASCAL N.V.	9280	LEBBEKE	Flanders		•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
DE VOCHT	2840	REET	Flanders	www.de-vocht.be	•	•		
DECEUNINCK	8830	HOOGLEDE	Flanders	www.deceuninck.com		•		
DEGELS METAL B.V.B.A.	8900	IEPER	Flanders	www.degelsmetal.be	•	•		
DEPLA H & CIE N.V.	8760	MEULEBEKE	Flanders		•	•		
DEPOORTER VERVOER	8400	OOSTENDE	Flanders	www.vervoerdepooter.be	•	•		
DERBIGUM	1651	LOT	Flanders	www.derbigum.be		•		
DESPRIET GEBROEDERS	8530	HARELBEKE	Flanders	www.desprietgebroeders.be	•	•		
DEWAL CONSULTING	6533	BIERCÉE	Wallonia	www.clusters.wallonia.be	•			
DHONDT GEERT	8700	TIELT	Flanders	www.oudemetalendhondt.be	•	•		
DILISSEN TRANSPORT	3900	OVERPELT	Flanders	www.dilissen-transport.com	•	•		
DOOPA	8800	ROESELARE	Flanders	www.doopa.be		•		
DROIT & DEVOIR	7000	MONS	Wallonia	www.droitetdevoir.com		•		
DUBAIL S.A.	5004	BOUGE	Wallonia		•	•		
DUFERCO	7100	LA LOUVIÈRE	Wallonia	www.duferco.be		•		
E.P.P.E.	4420	MONTEGNEE	Wallonia	www.ingrif.com	•			
ECO TREASURES	9160	LOKEREN	Flanders	www.ecotreasures.be		•		
ECOBETON WATER TECHNOLOGIES	3800	SINT TRUIDEN	Flanders	www.ecobeton.be	•	•		
ECO-DEC	4607	BERNEAU	Wallonia	www.eco-dec.be	•	•		
ECORE BELGIUM	6790	AUBANGE	Wallonia		•	•		
ECOREM	2630	AARTSELAAR	Flanders	www.ecorem.be	•	•	•	
ECOSON BELGIË	9470	DENDERLEEUV	Flanders	www.ecoson.be	•	•		
ECOTECHNOPOLE Wallonia	4000	LIEGE	Wallonia	www.etp-w.be	•			
EDELCHÉMIE BENELUX	3650	DILSEN-STOKKEM	Flanders	www.edelchemie.be		•		
EKOL	3530	HOUTHALEN-HELCHTEREN	Flanders	www.ekol.be		•		
EKP RECYCLING	2860	SINT-KATELIJNE-WAVER	Flanders	www.jacobsbeton.be		•		
ELECTRAWINDS	8400	OOSTENDE	Flanders	www.electrawinds.be			•	
ELOY WATER	4140	SPRIMONT	Wallonia	www.loywater.com	•			
E-MAX ALUMINIUM PROFIELEN N.V.	3650	STOKKEM (DILSEN)	Flanders	www.e-max.be		•		
ENVISAN	9308	HOFSTADE-AALST	Flanders	www.envisan.com	•	•		
ENWACO	3620	LANAKEN	Flanders	www.sites.google.com/a/enwaco.eu/enwaco	•	•		
EPUR	4460	GRACE-HOLLOGNE	Wallonia	www.epur.be	•			
EPUVALEAU	5030	GEMBLoux	Wallonia	www.epuvaleau.eu	•	•		
ETPH	4570	MARCHIN	Wallonia	www.etph.be	•			
E-TRUCKS EUROPE	3920	LOMMEL	Flanders	www.e-truckseurope.com	•			
ETUDES INDUSTRIELLES VANDERGEETEN	4000	LIEGE	Wallonia	www.e-i-v.be	•			

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
EUROFAT	8552	ZWEVEGEM-MOEN	Flanders	www.eurofat.be	•	•		
EURO-FRIP N.V.	9870	ZULTE	Flanders	www.eurofrip.be	•	•		
EUROPEAN WATER TRACING SERVICES	4550	NANDRIN	Wallonia	www.ewts.be	•			
EUROPORTS INLAND TERMINAL	4030	LIEGE	Wallonia	www.euroports.com	•			
EUROWASTE	2000	ANTWERPEN	Flanders	www.eurowaste.be	•			
EVADAM N.V.	8800	ROESELARE	Flanders	www.evadam.com	•	•		
FIM P&R	2260	WESTERLO	Flanders	www.fim.be		•		
FONDERIE ET MANUFACTURE DE MÉTAUX (FMM)	1070	BRUXELLES	Brussels	www.recylex.be	•	•		
FORONEX	8710	WIELSBEKE	Flanders	www.foronex.com	•	•		
FRATEUR-DE POURCQ ETN N.V.	2850	BOOM	Flanders		•	•		
GAGELMANS RECYCLING	2310	RIJKEVORSEL	Flanders	www.gagelmansrecycling.be	•	•		
GALLOO N.V.	8930	MENEN	Flanders	www.galloo.com	•	•		
GARWIG	8900	IEPER	Flanders	www.garwig.be	•	•		
GEERT MARTENS	9881	AALTER-BELLEM	Flanders	www.gm-metals.be	•	•		
GELDOF HOUTRECYCLAGE	8560	WEVELGEM	Flanders	www.geldof-recycling.be	•	•		
GEMINI CORPORATION	2050	ANTWERPEN	Flanders	www.geminicorp.be	•			
GEOCYCLE	7181	SENEFFE	Wallonia	www.geocycle.be		•	•	
GEORGE & CIE S.A. (GROUPE DERICHEBOURG)	6030	MARCHIENNE-AU-PONT	Wallonia		•	•		
GET ENVIRONNEMENT	6460	CHIMAY	Wallonia	www.get-environnement.eu	•			
GIELEN CONTAINER SERVICE	3600	GENK	Flanders	www.gielen-recyclage.be	•	•		
GILGEMYN RECYCLING N.V.	8560	GULLEGEM	Flanders	www.gilgemyn.be	•	•		
GOVAERTS RECYCLING	3570	ALKEN	Flanders	www.govaplast.be	•	•		
GRC-KALLO	9130	KALLO	Flanders	www.decnv.com	•	•		
GRCONSULT SPRL	1350	NODUWEZ	Wallonia		•	•		
GREEN CONSTRUCT	4910	THEUX	Wallonia	www.greenconstruct.be	•			
GREEN ENERGY 4 SEASONS	6900	MARCHE-EN-FAMENNE	Wallonia	www.greenenergy4seasons.be	•			
GREENSUN	1440	BRAINE-LE-CHATEAU	Wallonia	www.greensun.be	•		•	
G.R.L.-Glasrecycling	3560	LUMMEN	Flanders	www.grl.be	•	•		
GROND RECYCLAGE CENTRUM N.V. (GRC NV)	9130	KALLO	Flanders	www.grckallo.be		•		
GRONDREINIGINGSCENTRUM LIMBURG	3560	LUMMEN	Flanders	www.carmans.be	•	•		
H. THOME & FILS S.A.	1730	MOLLEM	Flanders		•			
HADDA INTERNATIONAL GROUP	8400	OOSTENDE	Flanders	www.haddagroup.com	•	•		
HAINAUT VIGILANCE SANITAIRE	7000	MONS	Wallonia	www.hainaut.be	•			
HAMON RESEARCH-COTTRELL	1435	MONT-SAINT-GUIBERT	Wallonia	www.hamon.com	•		•	
HARZE J.-VAN EST N.V.	2200	HERENTALS	Wallonia	www.oudemetalen-harze.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
HASKONING BELGIUM	5100	NANINNE	Wallonia	www.royalhaskoning.com	•			
HAVELANGE ROBERT	5360	NATOYE	Wallonia	www.havelange.com	•	•		
HB DRILLING	6140	FONTAINE L'ÉVEQUE	Wallonia	www.hbdrilling.be	•			
HCI	2950	KAPELLEN	Flanders	www.hci.be	•			
HENDRICKX & C° N.V.	2500	LIER	Flanders		•	•		
HENSMANS S.A.	1651	LOT	Flanders		•			
HESPERIA HYDROCHEMIE	4141	LOUVEIGNE (SPRIMONT)	Wallonia	www.hesperia.be	•	•		
HIGH 5 RECYCLING	2030	ANTWERPEN	Flanders	www.high5recycling.com	•	•		
HOLCIM BELGIQUE	1401	BAULERS (NIVELLES)	Wallonia	www.holcim.be		•	•	
HOSLET	1325	CHAUMONT-GISTOUX	Wallonia	www.hoslet.be	•			
HUUGHE METALEN B.V.B.A.	9000	GENT	Flanders	www.huughemetalen.be	•	•		
HYDRO - BIO	6210	VILLERS-PERWIN	Wallonia	www.hydro-chic.com	•			
HYDRO-CREATE INTER	4432	ALLEUR	Wallonia	www.aqualimpi.be	•			
IBH W2E CONSULTANTS	1380	LASNE	Wallonia	www.ibh.be	•			•
IGREENS	5000	NAMUR	Wallonia	www.igreens.eu	•			
INCITEC	7971	BASECLES	Wallonia	www.incitec.be	•			•
INDAVER	2800	MECHELEN	Flanders	www.indaver.be	•	•	•	•
INNOVATIVE MICROBIAL BIOPROCESS (IMBP)	1070	BRUXELLES	Brussels	www.imbp.be			•	
INTERCOMMUNALE DE PROPLETE PUBLIQUE DU HAINAUT OCCIDENTAL	7503	FROYENNES	Wallonia	www.ipalle.be	•	•		
IRCEB BUGGENHOUT N.V.	9255	BUGGENHOUT	Flanders	www.ircebbuggenhoutnv.be	•	•		
IRCO	5000	NAMUR	Wallonia	www.irco.be	•		•	
ISVAG CV	2610	WILRIJK	Flanders	www.isvag.be			•	
IVO VAN DEN BOSCH CONTAINERDIENST	2520	RANST (OELEGEM)	Flanders	www.ivovandenbosch.be	•	•		
JEAN GOLDSCHMIDT INTERNATIONAL	1000	BRUXELLES	Brussels		•	•		
JERITOP	8760	MEULEBEKE	Flanders	www.jeritop.be		•		
K.R.C. B.V.B.A.	9240	ZELE	Flanders		•	•		
KARGRO	2920	KALMTHOUT-NIEUWMOER	Flanders	www.tyreplan.be	•	•		
KAYAK MARITIME SERVICES	2000	ANTWERPEN	Flanders	www.kayak-maritime.be	•			
KEMPISCH RECYCLAGE BEDRIJF	2340	BEERSE	Flanders	www.krb-glasscollecting.be	•			
KEYSER & FILS S.A.	6110	MONTIGNY-LE-TILLEUL	Wallonia		•	•		
LA RESSOURCERIE DU PAYS DE LIÈGE	4460	GRACE HOLLOGNE	Wallonia	www.ressourceliege.be	•	•		
LABOSEC	5380	FERNELMONT	Wallonia	www.tradecowall.be	•	•		
LAMMERTYN.NET	9070	DESTELBERGEN	Flanders	www.lammertyn.net	•			
LARECO	6900	MARCHE-EN-FAMENNE	Wallonia	www.lareco.net	•			
LAUREYS PETER	9200	DENDERMONDE	Flanders	www.peterlaureys.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
LAVANO	7700	MOUSCRON	Wallonia	www.lavaertgroup.com	•	•		
LAVATRA	8930	LAUWE	Flanders	www.lavaertgroup.com		•		
LHOIST RECHERCHE & DÉVELOPPEMENT	1342	LIMELETTE	Wallonia	www.lhoist.com		•	•	
LOOP LIFE POLYMERS	2235	HULSHOUT	Flanders	www.looplife-polymers.eu		•		
LUBECO	2310	RIJKEVORSEL	Flanders	www.iehrecyclingbelgium.com		•		
M.E.C.	8500	KORTRIJK	Flanders	www.mec-bvba.be		•		
MAC ²	2030	ANTWERPEN	Flanders	www.macantwerpen.be	•	•	•	
MACHIELS GROUP N.V.	3500	HASSELT	Flanders	www.machiels.com			•	
MAES CONTAINERS	3980	TESSENDERLO	Flanders	www.containersmaes.be	•	•		
MALTHA	3920	LOMMEL	Flanders	www.maltha.nl		•		
MARPOS	8380	DUDZELE	Flanders	www.marpos.info	•	•		
MATCO	8790	WAREGEM	Flanders	www.matco.be	•			
MATCO GLAS	8710	WIELSBEKE	Flanders	www.matcoglas.be	•			
MAYERS METALS S.P.R.L.	1030	BRUXELLES	Brussels		•	•		
MCA	1190	BRUXELLES	Brussels	www.mca-recycling.com	•	•		
MCR	2627	SCHELLE	Flanders			•		
MELS CONTAINERDIENST	9220	HAMME (O.-VL.)	Flanders	www.melscontainers.be	•	•		
MENART	7370	DOUR	Wallonia	www.menart.eu	•	•		
METALEN DESCAMPS N.V.	3200	AARSCHOT	Flanders	www.metalen-descamps.be	•	•		
METALLO CHIMIQUE N.V.	2340	BEERSE	Flanders	www.metallo.com	•	•		
METROLOGIE ET GESTION D'ENVIRONNEMENT	1325	CHAUMONT-GISTOUX	Wallonia	www.mgesolutions.com	•			
MINÉRALE	6042	LODELINSART	Wallonia		•	•		
MOMMENS J. B.V.B.A.	2660	HOBOKEN	Flanders	www.oudemetalen-mommens.be	•	•		
MONSEU	1440	BRAINE-LE-CHATEAU	Wallonia	www.monseu-recycling.com	•	•		
MORPHO-BIOMIMICRY	4030	LIEGE	Wallonia		•			
MERYTHERM BUREAU D'ETUDE (MTBE)	4130	TILFF	Wallonia	www.mtbe.be	•			
MTD MILIEUTECHNIEKEN (Maritime Services & Port Reception Facility)	2030	ANTWERPEN	Flanders	www.mtd.be	•	•		
MULTI CONTINENTAL BELGIË B.V.B.A.	3900	OVERPELT	Flanders		•	•		
N TRADING	1120	NEDER-OVER-HEEMBEEK	Brussels	www.ntrading.be	•	•		
NEMO TRADING BV DIVISIE BELGIË	2050	ANTWERPEN	Flanders	www.nemotrading.be	•	•		
NEW WEST GYPSUM RECYCLING	1050	BRUSSEL	Brussels	www.nwgypsum.com		•		
NIEULANDT RECYCLING N.V.	9300	AALST	Flanders	www.nieulandtre recycling.be	•	•		
NOZON TECHNOLOGIES N.V.	8570	ANZEGEM	Flanders	www.Nozon.eu		•	•	
NUTRIENTS RECOVERY SYSTEMS	8790	WAREGEM	Flanders	www.nuresys.com		•		
NYRSTAR BELGIUM N.V.	2490	BALEN	Flanders	www.nyrstar.com	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
NYS METAALRECYCLAGE B.V.B.A.	3770	RIEMST	Flanders	www.nysmetaalrecyclage.be	•	•		
ODOMETRIC	6700	ARLON	Wallonia	www.odometric.be	•			•
ODS INTERNATIONAL	5330	ASSESE	Wallonia	www.lesuisse.com	•			
OOSTVLAAMS MILIEUBEHEER OVMB	9042	GENT	Flanders	www.ovmb.be				•
OP DE BEECK	2250	OLEN	Flanders	www.odbeeck.be			•	
ORMIGE	1471	LOUPOIGNE	Wallonia	www.luminosome.be	•		•	
ORTMANS	4890	THIMISTER-CLERMONT	Wallonia	www.ortmans.be	•			
OUD PAPIER CENTRALE CVBA	9900	EEKLO	Flanders		•	•		
OUD PAPIER JOZEF MICHEL N.V.	2920	KALMTHOUT	Flanders	www.oudpapiermichel.be	•	•		
OUDE METALEN DIRK PETEREYNS	9770	KRUISSHOUTEM	Flanders		•	•		
OUT OF USE	3200	AARSCHOT	Flanders	www.outofuse.com	•	•		
OWS N.V.	9000	GENT	Flanders	www.ows.be		•	•	
PACK2PACK	8800	RUMBEKE	Flanders	www.pack2pack.com	•	•		
PARCO B.V.B.A.	8300	KNOKKE	Flanders		•	•		
PEELAER B.V.B.A.	2230	RAMSEL-HERSELT	Flanders	www.peelaer.be	•	•		
PEGASE ENVIRONNEMENT	1332	GENVAL	Wallonia	www.pegase-environnement.be	•			•
PERUWELD	7600	PERUWELZ	Wallonia	www.peruweld.be	•			
PHOENIX PLUS	1348	LOUVAIN-LA-NEUVE	Wallonia	www.phoenix-plus.be	•	•		
PIESSENS (SCHROOTHANDEL)	2830	TISSSELT	Flanders		•	•		
PIROBOUW	2900	SCHOTEN	Flanders	www.pirobouw.com		•		
PLASTIREC	2330	MERKSPLAS	Flanders	www.plastirec.be	•	•		
POLESE ALEX S.P.R.L.	3770	VROENHOVEN	Flanders		•	•		
PROTELUX	6880	BERTRIX	Wallonia	www.protelux.be	•	•		
RAVAGO PRODUCTION	2370	ARENDONK	Flanders	www.ravago.be		•		
RCMD bvba Plastic Recycling	9870	ZULTE	Flanders	www.rcmd.be	•	•		
RD RECYCLING	3530	HOUTHALEN-HELCHTEREN	Flanders	www.rdrecycling.be		•	•	
RDC ENVIRONMENT	1160	BRUXELLES	Brussels	www.rdcenvironment.be	•	•	•	•
RECMA	4100	SERAING	Wallonia	www.res-sources.be	•	•		
RECMIX BELGIUM	3600	GENK	Flanders			•		
RECOVAL	6240	FARCIENNES	Wallonia	www.recoval.be	•	•		
RECUPA	1070	ANDERLECHT	Brussels			•		
RECUP-OIL	8770	INGELMUNSTER	Flanders	www.recup-oil.be	•	•	•	
RECUTEX N.V.	9870	ZULTE	Flanders	www.recutex.com	•	•		
RECYCA	2390	MALLE	Flanders	www.recyca.be	•	•		
RECYCLIS	1150	BRUXELLES (WOLUWE-SAINT-PIERRE)	Brussels	www.recyclis.be	•	•		
RECYC-OIL	8710	WIELSBEKE	Flanders	www.recy-c-oil.be	•	•	•	
RECYFOOD	3560	LUMMEN	Flanders	www.recyfood.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
RECYFUEL	4480	ENGIS	Wallonia	www.recyfuel.be				•
RECYLUX	4832	RODANGE	Wallonia	www.recyflux.com	•	•		
RECYMET S.A.	6200	CHATELET	Wallonia	www.recymetrecycling.be	•	•		
RECYTEX EUROPE	4100	SERAING	Wallonia		•	•		
RECYWALL	7000	MONS	Wallonia	www.recywall.be	•	•		
REFOOD	9520	BAVEGEM	Flanders	www.refood.eu	•	•	•	
REMO MILIEUBEHEER N.V. (GROUP MACHIELS)	3500	HASSELT	Flanders	www.machiels.com				•
REMONDIS INDUSTRIAL SERVICES N.V.	4041	MILMORT	Wallonia	www.remondis.be	•	•		
RENOVIUS	3900	OVERPELT	Flanders	www.renovius.be		•	•	
REPAPER B.V.B.A.	5021	BONINNE	Wallonia		•	•		
RESOL	3581	BEVERLO	Flanders	www.putboudewijn.be	•	•		
RETRA N.V.	9000	GENT	Flanders	www.retra.be	•	•		
RETRIVAL	6043	RANSART	Wallonia	www.retrival.be	•			
REVABO	2990	WUUSTWEZEL	Flanders	www.hensnv.be		•		
REVATECH - WOS	4480	ENGIS	Wallonia	www.revatech.be	•	•	•	
REZINAL N.V.	3550	ZOLDER (HEUSDEN-ZOLDER)	Flanders	www.rezinal.be		•		
RISK ASSESSMENT - SOIL EXPERT ADVICES AND SERVICES - RAM-SES	5032	ISNES	Wallonia	www.ram-ses.eu	•	•		
RMS RECYCLING	3980	TESSENDERLO	Flanders	www.rmsrecycling.be	•			
ROCOURT METAUX S.A.	4000	LIEGE	Wallonia		•	•		
ROMARCO	9240	ZELE	Flanders	www.romarco.be	•	•		
ROOSEN N.V.	3800	SINT-TRUIDEN	Flanders	www.roosen-nv.be	•	•		
RUMST RECYCLING	2840	RUMST	Flanders	www.rumstrecycling.be	•	•		
RUMSTSE METAALHANDEL N.V.	2840	RUMST	Flanders	www.rumstsemetaalhandel.be	•	•		
RYMOPLAST	3920	LOMMEL	Flanders	www.morssinkhofplastics.nl		•		
S.H.E.R.-INGENIEURS-CONSEILS	5020	VEDRIN	Wallonia	www.sher.be	•			•
SAF RECYCLAGE	9990	MALDEGEM	Flanders	www.recyclagesaf.be	•	•		
SANEL RECYCLING	9900	EEKLO	Flanders	www.sanelrecycling.be	•	•		
SANIFOX	5380	NOVILLE-LES-BOIS	Wallonia	www.sanifox.com	•			
SANTERRA	3190	BOORTMEERBEEK	Flanders	www.santerra.be				•
SAPA RC PROFILES N.V./S.A.	8810	LICHTERVELDE	Flanders	www.sapagroup.com		•		
SBMI	7011	GHLIN	Wallonia	www.sbmi.be	•			
SEDE BENELUX	5032	ISNES	Wallonia	www.sede.be	•	•	•	
SEOS GROUP	4800	VERVIERS	Wallonia	www.seosgroup.com	•	•		
SGS EWACS	9120	MELSELE	Flanders	www.be.sgs.com	•	•	•	
SHANKS	1435	MONT-ST-GUIBERT	Wallonia	www.shanks.be	•	•	•	•
SILVAMO	8800	ROESELARE	Flanders					•

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
SIMS RECYCLING SOLUTIONS	9100	SINT-NIKLAAS	Flanders	www.sims-mirec.com	•	•		
SITA BELGIUM NV	1082	SINT-AGATHA-BERCHEM	Brussels	www.sita.be	•	•	•	•
SITEREM	1348	LOUVAIN-LA-NEUVE	Wallonia	www.siterem.be	•			
SMET JET	2260	OEVEL	Flanders	www.smetjet.be	•	•	•	
SMURFIT KAPPA SPAARPAPIER	2170	MERKSEM	Flanders		•	•		
SO.TRA.EX	4700	EUPEN	Wallonia	www.sotraex.com		•		
SOCAPLAST	1840	LONDERZEEL	Flanders	www.socaplast.be	•	•		
SODEVER	1420	BRAINE L'ALLEUD	Wallonia	www.sodetri.be				•
SOFIE	4130	SERAING	Wallonia	www.electrosofie.be	•	•		
SOGEREC METALS RECYCLING S.A.	1190	BRUXELLES	Brussels		•	•		
SOL&VAL	7331	SAINT-GHISLAIN	Wallonia	www.soletval.com	•	•		
SOLAZ	6220	FLEURUS	Wallonia	www.solaz-sa.com	•	•		
SOLVAY (PROCÉDÉS NEUTREC, VINYLOOP ET NOVOSOL)	1120	BRUXELLES	Brussels	www.solvay.com	•	•		
SORAF	2840	RUMST	Flanders		•	•		
SORET	1560	HOEILAART	Flanders	www.soret-containers.be	•	•		
SPACEBEL	4031	ANGLEUR	Wallonia	www.spacebel.be				•
STADSBADER	8530	HARELBEKE	Flanders	www.stadsbader.com	•	•		
STASSEN RECYCLING N.V.	3600	GENK-WINTERSLAG	Flanders	www.stassenrecycling.com	•	•		
STELIMET N.V.	3600	GENK	Flanders		•	•		
STENOFER N.V.	2830	WILLEBROEK	Flanders		•	•		
STORA ENSO LANGERBRUGGE	9000	GENT	Flanders	www.storaenso.com		•	•	
T RECUPKE	8500	KORTRIJK	Flanders	www.recupke.be	•	•		
T.P.F. - BASSE SAMBRE	5190	MOUSTIER-SUR-SAMBRE	Wallonia	www.tpf-bs.be	•	•		
TECHMAS	1380	LASNE	Wallonia	www.techmas.be	•	•		
TECHNICAL ENGINEERING SERVICES - T-E-S.	5530	GODINNE	Wallonia	www.technical-engineering.eu	•	•	•	
TELLGNOSIS	9000	GENT	Flanders			•		
TERRE ASBL	4040	HERSTAL	Wallonia	www.terre.be	•	•		
THE SNIFFERS	2490	BALEN	Flanders	www.the-sniffers.com			•	
THEYSE JEAN	4031	ANGLEUR	Wallonia		•	•		
TIVACO	7522	BLANDAIN-TOURNAI	Wallonia	www.tivaco.be		•		
TOBCO	1200	BRUXELLES	Brussels	www.tobco.be	•	•		
TPF – TPF ECONOLER	1190	BRUXELLES	Brussels	www.tpf.eu	•	•	•	•
TPS TECHNOLOGIES	1180	BRUXELLES	Brussels	www.tpstech.com			•	
TRACTEBEL - ENGINEERING	1200	BRUXELLES	Brussels	www.tractebel-engineering-gdfsuez.com	•		•	•
TRANSCOMA	3600	GENK	Flanders	www.transcoma.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
TRANSMETAUX S.P.R.L.	6040	JUMET	Wallonia	www.transmetauxjumet.be	•	•		
TREDESOL	7972	AUBECHIES	Wallonia	www.tredesol.be	•	•		
TRIBEL METALS S.P.R.L.	1190	BRUXELLES	Brussels	www.tribel.be	•	•		
TRISKELL INDUSTRIE	4690	BASSENGE	Wallonia	www.triskell.be	•		•	
TRI-TERRE SAFS	4040	HERSTAL	Wallonia	www.tri-terre.be	•	•		
TRUNK MARITIME SERVICES	2060	ANTWERPEN	Flanders		•			
TWZ	9940	EVERGEM	Flanders	www.twz.be		•	•	
TYPHOON N.V.	8791	BEVEREN-LEIE (WAREGEM)	Flanders	www.typhoon.be	•	•	•	
UMICORE, N.V./S.A.	1000	BRUXELLES	Brussels	www.umicore.com		•		
UNIGOM	8560	WEVELGEM	Flanders	www.unigom.be	•	•		
ULG – LABORATOIRE DE GÉNIE CHIMIQUE	4000	LIEGE	Wallonia	www.ulg.ac.be			•	
UNIVERSITÉ DE MONS	7000	MONS	Wallonia	www.portail.umons.ac.be	•			
UNIVERSOIL	4000	LIEGE	Wallonia	www.universoil.be	•			
VAL+ SOLID WASTE CLUSTER	5480	FERNELMONT	Wallonia		•	•	•	
VAN ASSCHE RECYCLING & TRADING B.V.B.A.	9200	DENDERMONDE	Flanders		•	•		
VAN DALEN BELGIUM N.V.	2440	GEEL	Flanders	www.vandalenrecycling.com	•	•		
VAN DEN BROUCK - DE SUTTER	9400	NINOVE	Flanders		•	•		
VAN GANSEWINKEL	2870	PUURS	Flanders	www.vangansewinkel.com	•	•	•	
VAN HEES METALEN N.V.	2400	MOL	Flanders	www.vanheesmetalen.be	•	•		
VAN MOER H&ZN	9120	MELSELE	Flanders	www.vanmoerh.be	•	•		
VAN PELT CONTAINERBEDRIJF	2900	SCHOTEN	Flanders	www.vanpelt-nv.be	•	•		
VAN WERVEN KUNSTSTOF RECYCLING	2350	VOSELAAR	Flanders	www.vanwerven.nl		•		
VANBREUZE N.V. ANC. ETS	1745	OPWIJK	Flanders		•	•		
VANDEBROUCKE (OUDE ETN) N.V.	8800	ROESELARE	Flanders		•	•		
VANDENDRIESSCHE HOUTRECYCLAGE	8840	WESTROZEBEKE	Flanders	www.houtrecyclage.be		•	•	
VANDEWIELE RECYCLING	8470	GISTEL	Flanders	www.houtmolen.be		•	•	
VANHEEDE ENVIRONMENT GROUP	8940	GELUWE	Flanders	www.vanheede.com	•	•	•	•
VEOLIA ES MRC	2030	ANTWERPEN	Flanders	www.veolia-es.be	•	•	•	
VERMETAL B.V.B.A.	2627	SCHELLE	Flanders	www.vermetal.be	•	•		
VERPOLA	8000	BRUGGE	Flanders	www.verpola.be		•		
VERSCHUEREN CONTAINERDIENST	2800	MECHELEN	Flanders	www.verschueren-e.be	•	•		
VIDTS RECYCLING	7822	GHISLENGHIEN	Wallonia	www.vidtsrecycling.be	•	•		
VINCOTTE ENVIRONNEMENT	1800	VILVORDE	Wallonia	www.aib-vincotte.com	•	•	•	
VLAAMS INZAMEL CENTRUM TEXTIEL BVBA	8790	WAREGEM	Flanders	www.vic-tex.be	•	•		
VULSTEKE & VERBEKE	8970	POPERINGE	Flanders	www.vulsteke-verbeke.be	•	•		

COMPANY	ZIP	CITY	REGION	SITE	COLLECTION & SORTING	WASTE TO MATERIAL	WASTE TO ENERGY	LANDFILL SOLUTIONS
WAASLAND RECYCLING B.V.B.A.	9170	ST-GILLIS-WAAS	Flanders	www.waaslandrecycling.be	•	•		
WATERLEAU	3020	HERENT	Flanders	www.waterleau.com			•	
WATERPRO	4020	WANDRE	Wallonia	www.waterpro.be	•			
WATERTECH	4684	HACCOURT	Wallonia	www.water-tech.be	•			
WEBER SPRL	5060	AUVELAIS	Wallonia		•	•		
WE-POWER (COLRUYT GROEP)	1500	HALLE	Flanders	www.colruytgroup.be			•	
WERRENS N.V. (METAALHANDEL)	2490	BALEN	Flanders	www.werrens.be	•	•		
WEST WASTE TREATMENT	8600	DIKSMUIDE	Flanders	www.wwt.be		•		
WETLANDS BIOSCIENCES	1348	LOUVAIN-LA-NEUVE	Wallonia	www.wetlands.be	•	•		
WILMET S.A.	5020	MALONNE	Wallonia	www.sohow.be	•	•		
WOS HAUTRAGE	7334	HAUTRAGE	Wallonia	www.wos-hautrage.be		•	•	
WRWS WAREMME RECYCLAGE	4300	WAREMME	Wallonia	www.wrws.be	•	•		
WYNANTS & ZONEN B.V.B.A.	2860	SINT-KATELIJNE-WAVER	Flanders	www.wynantsenzonen.be	•	•		
XIBIOS	7543	MOURCOURT	Wallonia	www.xibios.eu	•			•
XYLOWATT S.A.	6030	MARCHIENNE-AU-PONT	Wallonia	www.xylowatt.com			•	
ZUKO	1380	MARANSART	Wallonia	www.zukobio.be	•			





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