SYCTOM
DE L'AGGLOMERATION PARISIENNE

Syndicat intercommunal de traitement des ordures ménagères de l'agglomération parisienne
35, boulevard de Sébastopol - 75001 Paris. Tél. : 01 40 13 17 00 - Fax : 01 45 08 54 77 - E-mail : syctom@syctom-paris.fr / Site Web : www.syctom-paris.fr

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ACTIVITY REPORT 2007

SYCTOM
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CONTENTS

"2007 marks a new phase in our commitment to materials sorting and recovery."

Prevention: It has become clear that the reduction of waste for processing, an issue at the heart of environmental preservation, should be a priority objective for SYCTOM and its members. 2007 saw us roll out our policy of reducing waste at source and improving its recovery, with a joined-up series of initiatives undertaken by the local authorities and the primary syndicates. At the same time, the Syndicate is set to reinforce its waste recovery capacities to avoid landfill.

Transition: 2007 marked the end of a major period of transition for SYCTOM. Having brought the Isséane centre into service last December, SYCTOM is increased its renown for remarkable industrial and technological prowess and entered a new phase of activity. In 2008 we will have increased waste recovery capacities available with new centres at Issy-les-Moulineaux and Sevran.

Accomplishments: The opening of these installations, the forthcoming construction of the Paris XV sorting centre and the project of the same type in Paris XVII bear witness to the priority accorded to waste sorting and materials recovery. Methanisation projects (in Romainville, Bobigny and Blanc-Mesnil/Aulnay-sous-Bois) also demonstrate our priorities and will enable us to increase, by 2012, our still insufficient processing capacities and to reduce still further the tonnages sent to landfill. They also demonstrate the success of our work together with local authorities and partners on the deployment of a sustainable logistical management system for the waste produced by Ile-de-France residents and the development of ambitious projects providing alternatives to road transport.

Commitment: Our commitment to environmental preservation and greenhouse gas reduction is also evident in a major ambition: transforming non-recyclable waste into a local source of energy (for the production of steam for urban heating and, residually, electricity), which can be substituted for fossil fuels.

Mobilisation: All these projects, which come to fruition thanks to the work of our teams, our partners and elected members, today offer benchmark examples of how to change practices and contribute to better waste management. This all comes at a time when, at levels beyond SYCTOM in the Paris agglomeration, issues involving the environment and waste are very much the subject of debate, especially at regional level with the future household waste eradication plan.

François DAGNAUD,
Chairman of SYCTOM
in the Paris agglomeration

Waste processing... a public service mission

Nearly 2.48 million tonnes of household waste processed in 2007

When it was established in 1984, SYCTOM (inter-communal waste management group) in the Paris agglomeration brought together 60 local authorities which wanted to manage the waste produced by their residents together. The Syndicate now has 85 local authority members and has become the biggest European waste processing and recovery group. In 2007, SYCTOM processed 2.48 million tonnes of household waste. SYCTOM is a public administration establishment under the Local and Regional Authority Code (CGCT). The authorities which are members of the Syndicate are either direct members – as is the case for the City of **Paris, 3 Yvelines authorities** and **13 Val-de-Marne authorities** (of these 17 towns, 7 are members through 3 inter-municipal groupings) – or by the intermediary of two primary departmental syndicates:

› SITOM93
(Seine-Saint-Denis inter-authority waste management group) brings together 38 authorities (14 of which are members through 3 inter-municipal groupings),

› and SYELOM
(Hauts-de-Seine combined group for the disposal of household waste) brings together 30 authorities (16 of which are members through 5 inter-municipal groupings).

These two primary syndicates are important partners for SYCTOM. They provide information to their members, help them to make decisions and monitor their selective collections. They delegate to SYCTOM the responsibility for processing and recovering waste.

The SYCTOM perimeter in figures

> 85
authorities working together to manage their waste

> 5
Ile-de-France departments

> 2
primary departmental syndicates

> 5.58
million residents (estimated 2007 population)

> 11
inter-municipal groupings

> 2.48
million of tonnes of waste

The waste processed and recovered by SYCTOM comes from five different sources

The waste collected by SYCTOM in its member local and inter-municipal authorities comes from five different sources:

> Selective collections

Newspapers and magazines, cardboard packaging, plastic bottles and containers, brick packs, steel and aluminium cans, glass bottles and jars:
this recyclable waste is sorted by the user and disposed of in specific bins. It is sorted again by material type in SYCTOM waste sorting centres and then sold to firms which give the materials second life by recycling them. Only glass, which is immediately collected by glassworkers, is not processed by SYCTOM.

> Residual household waste collections

This covers non-recyclable mixed household waste which users throw out into their bins: (food leftovers, dirty waste, etc). It is taken to centres for incineration with energy recovery, where it is burnt to produce energy (steam for the urban heating and electricity network). In 2007, it accounted for 83.1% of the total volume of waste: 2.06 million tonnes of the waste collected.

> Bulky items

These products of domestic household life include broken or used items of furniture, large cardboard boxes, mattresses and all household domestic appliances, now commonly referred to as e-waste (electrical and electronic waste).
Bulky items are covered by specific collections and sent to specialist SYCTOM sorting centres, where their component materials are recovered, or to specific recovery facilities (e-waste, for example).

> Waste brought to the processing site

This covers all waste which cannot be collected in selective collections or with household waste because of its weight, volume or specific characteristics (in other words bulky items, e-waste, special household waste (such as batteries, solvents and drain oil) and miscellaneous waste (rubble, wood, etc). Depending on their specific characteristics, it is recycled, treated, incinerated or sent to technical landfill centres.

Every day, SYCTOM takes delivery of household waste from its 85 member local authorities.

> Green waste

This comes from garden maintenance and green spaces, and includes lawn clippings, leaves, branches, etc. It is collected by local authorities or taken to the processing sites.

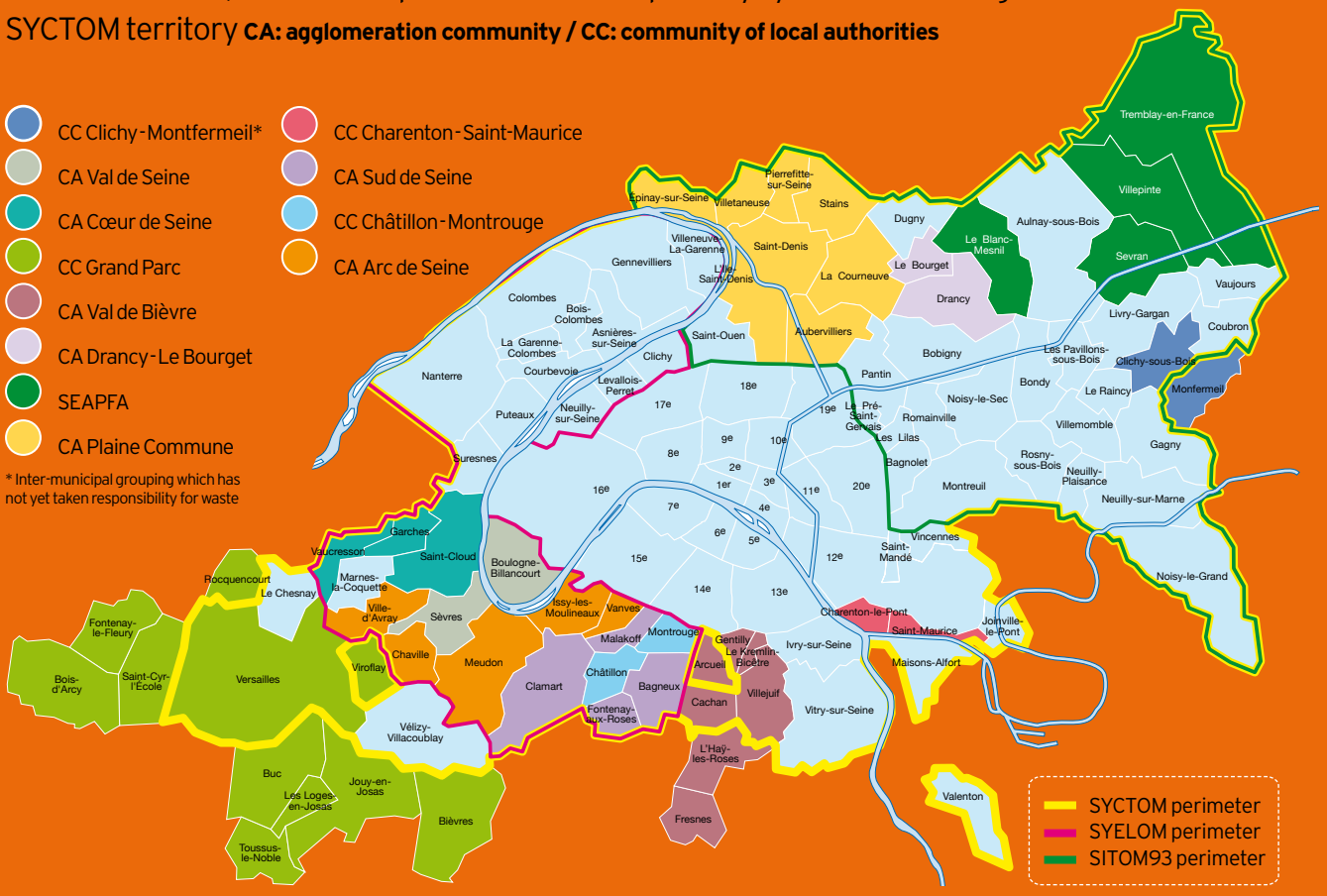
REFERENCE POINTS

SYCTOM's area of operation

Local authorities, inter-municipal authorities and primary syndicates forming the SYCTOM territory **CA: agglomeration community / CC: community of local authorities**

- CC Clichy-Montfermeil*
- CA Val de Seine
- CA Cœur de Seine
- CC Grand Parc
- CA Val de Bièvre
- CA Drancy-Le Bourget
- SEAPFA
- CA Plaine Commune
- CC Charenton-Saint-Maurice
- CA Sud de Seine
- CC Châtillon-Montrouge
- CA Arc de Seine

* Inter-municipal grouping which has not yet taken responsibility for waste

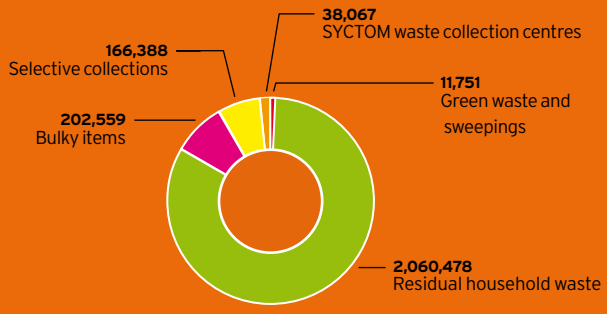


Waste processed by SYCTOM

Breakdown of the 2.48 million tonnes of waste processed by SYCTOM

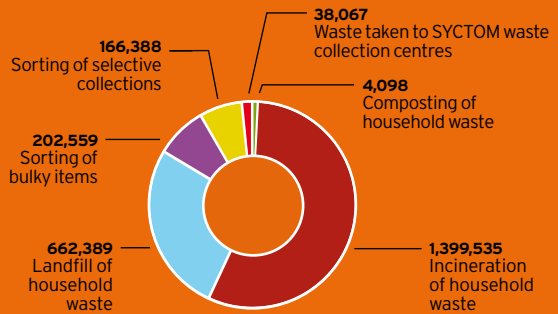
By collection method

(in tonnes)



By processing method

(in tonnes)



SYCTOM waste processing sites
in 2007

- Sorting centre
- Incinerator with energy recovery
- Waste collection centre
- Transfer centre
- River transfer centre
- Sorting centre under construction
- Energy recovery unit under construction
- Planned methanization unit
- Planned selective collection sorting centres
- Planned river transfer centre

501,000 to 730,000t
251,000 to 500,000t
61,000 to 250,000t
31,000 to 60,000t
16,000 to 30,000t
0 to 15,000t

Scale in proportion to each centre's annual processing capacity.

*** Incineration activity ended at this centre in February 2006. It was then used as a temporary waste transfer centre until December 2007, when Isséane came into service**

A sustainable environmental protection strategy

- Contributing to the reduction and prevention of waste
- Sustainably preserving the environment
- Diversifying management methods
- Informing, raising awareness and involving the public

> 475 kg
of waste per resident in 2007, compared with 477kg in 2006

> 68%
of tonnages of waste recovered (material and energy) in 2007

> 3,210
visitors to SYCTOM sites in 2007

Contributing to the reduction and prevention of waste

Influencing consumer behaviour

Because the population in the Ile-de-France region is the highest in France, the multi-storey housing stock is the densest in France and there are more households of one or two people, this region generates a much greater volume of waste than the national average. While materials recovery systems make it possible to process around 24% of waste, landfill or incineration is inevitable for the residual proportion. Since 2004, SYCTOM has looked to play a major role in the prevention and reduction of waste landfilled or incinerated. To this end it has launched an action plan aiming to reduce the proportion of waste processed in this way by 300,000 tonnes per year. Its primary objective is to improve waste recovery: diversifying processing methods and diverting waste from incineration and landfill as far as possible by improving upstream sorting.

However, it also wants to influence consumer behaviour: with the support of member authorities and inter-authority groupings, it is undertaking information campaigns to raise awareness among users – residents and companies but also the local authorities themselves – about the environmental impact of their waste. The aim, of course, is to help them to sort their waste better, but also to encourage them to produce less of it by choosing, for example, products with less bulky, more recyclable packaging, or by granting a second life to objects.

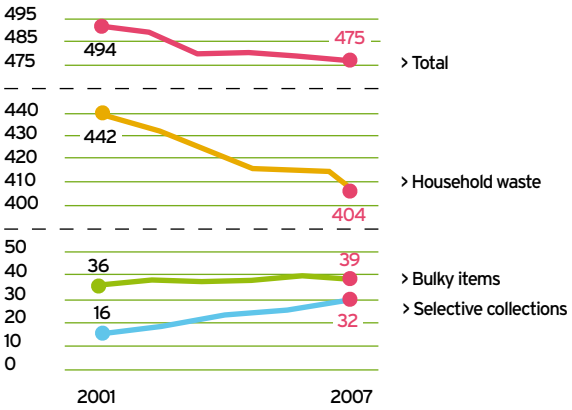
> Developing a community network

Because proximity often encourages a citizen to sort and recycle waste, SYCTOM has built a range of partnerships. For a number of years, it has supported the development of neighbourhood waste collection centres and subsidised their creation, providing 30% of the civil engineering and equipment costs.

In 2007, an additional source of funding was provided in order to encourage authorities to establish new sites. It is contributing 30% to land purchase costs,

Waste processed

Changing quantities processed by SYCTOM since 2001
in kg/resident/year

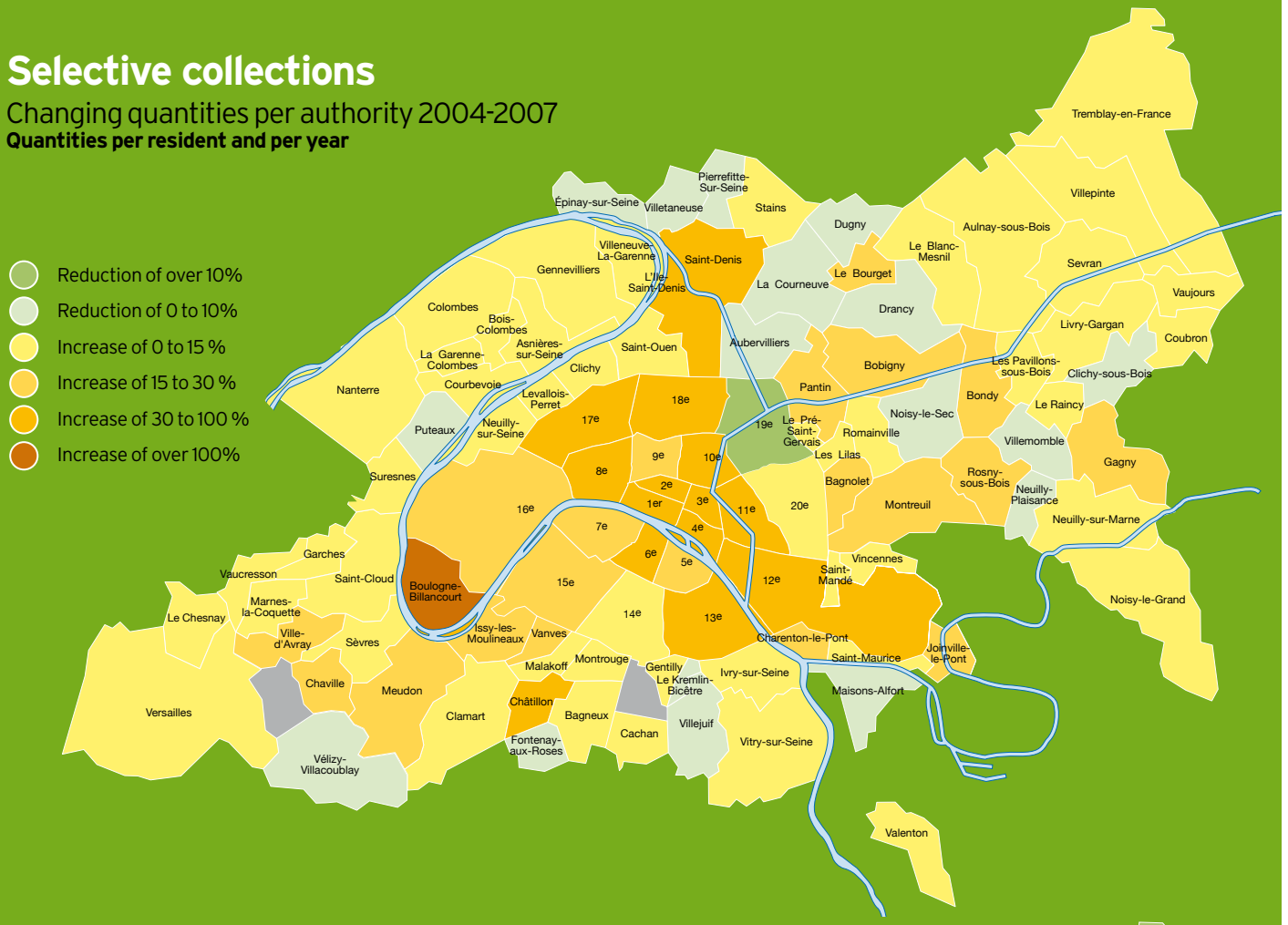


Changes observed inside a constant perimeter made up of 76 local authorities and 5.07 million residents in 2007.

Selective collections

Changing quantities per authority 2004-2007

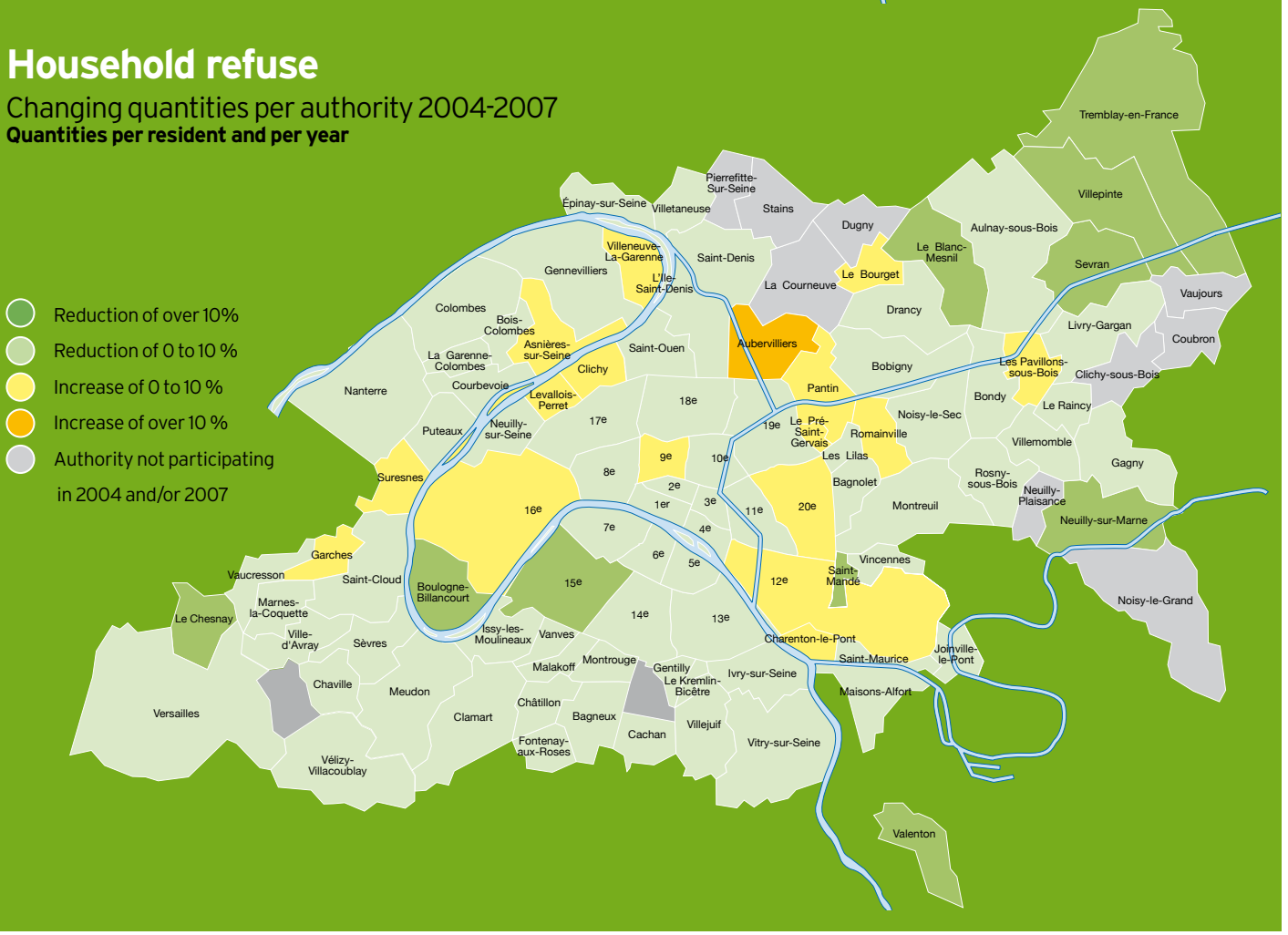
Quantities per resident and per year



Household refuse

Changing quantities per authority 2004-2007

Quantities per resident and per year



up to a limit of €30/m2. In three years, SYCTOM has helped to finance 9 waste collection centres: Gennevilliers, Pierrefitte, Sevran, Tremblay-en-France, Villepinte, Aubervilliers, Bagneux, Paris XVIII and Paris la Chapelle. In order to process and recover some forms of waste, the only solution is sometimes for the residents to take their waste to the collection centres themselves. Today, the increasing density of the network of neighbourhood, local authority and inter-authority waste collection centres is a necessity. In 2007, SYCTOM also signed a three-year extension to the agreement with the Emmaüs homeless charity, providing for the free management of waste collected and sorted by the members of the community.

In 2007, the Syndicate consolidated its assistance for the construction of waste collection centres

> Improving collection of e-waste

Since 2003, e-waste (electrical and electronic waste) has been subject to specific regulations. A European directive stipulates that it is recycled, in order to reduce the pollution it causes, and prohibits users from disposing of it with their rubbish. Transposed into French law in 2005, this directive provides for the collection of an old device when a new one of the same type is bought. This is the "one for one" scheme. The manufacturers and distributors are then responsible for disposing of or recycling the electrical and electronic components. However, other devices are processed by conventional collection channels. In most cases, it is up to the user to go to the waste collection centre in order to ensure that devices enter the processing system. They are also collected with bulky items.
However, some member towns are working to roll out specific collection systems.
In order to inform and raise awareness among Ile-de-France residents of the "one for one" collection scheme, in late 2006 SYCTOM and its member authorities launched a major poster campaign. This initiative continued in 2007.

**The construction of waste collection centres subsidised by SYCTOM in 2007:
Aubervilliers, €61,920;
Bagneux, €27,000;
Paris XVIII, €52,312;
Paris la Chapelle, €21,996;
making a total subsidy of €163,228**

Sometimes damaged during collection or transport, some e-waste cannot be channelled into eco-consortiums' recovery or collection mechanisms. The authorities are working together to provide more suitable collection systems.

SYCTOM avoids waste paper

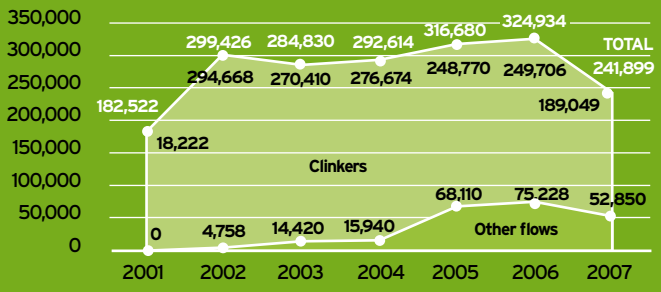
> The best response to Ile-de-France waste is to reduce it. In order to do this, users, whoever they may be, must become aware of the impact that they have when they throw away waste. Residents, local authorities, companies: everyone can act. In 2007, SYCTOM made the decision to reduce the volumes of paper produced and to simplify its administrative procedures. In 2008, the procedures used to send some of these documents, relating to legality checks and public accounting, will become paperless.

Did you know?

> In 2007, the river transport and rail freight used by SYCTOM meant that 11,000 lorries were removed from the roads in the Ile-de-France region. Nearly half of the materials leaving SYCTOM centres was transported by rail or river to recycling facilities. 79% of recyclable products leaving SYCTOM centres (or centres under contract with the Group) will be transported by river by late 2008, avoiding 22,000 lorry journeys. By 2013, the volume carried by alternative means of transport from SYCTOM facilities will rise to 940,000 tonnes/year, nearly 90% of the total.

The transport of materials leaving centres by rail and river in 2007

Tonnages removed by alternative modes of transport since 2001



> The quantities of materials taken from SYCTOM centres by alternative modes of transport fell slightly in 2007.
The first factor behind this short-term reduction is the fall in quantities incinerated and therefore of clinkers produced in centres served by alternative modes of transport. Further, the splitting up of districts in order to make the centres they serve nearer to their feeder areas boosted direct inputs and reduced the amount received in transfers. This was the case in Saint-Denis, where inputs fell. Finally, the contracts renewed in 2007 required their new contractors to undertake a period of preparation before making the investments needed to implement alternative modes of transport. This reduction can also be explained by difficulties concerning the availability of alternative transport, particularly rail.

Combating global warning

Household waste: a source of energy

DID YOU KNOW?

› Household waste is:
- the 2nd biggest source of renewable electricity after hydraulic power;
- the 2nd biggest source of renewable heat after wood.

› Ten families' waste provides for the electricity consumption needs of one family.
Seven families' waste provides heating and hot water for one family.
Sources : The Ministry for Industry (DGEMP), Amorce/ Ademe.

In March 2007, the European Union set itself the target of reducing greenhouse gas emissions by 30% by 2020, compared with 1990 levels. It also required member states to increase the proportion of renewable energies in the energy mix to 20%. SYCTOM, which is responsible for managing the waste from half of the population of the Ile-de-France region (nearly 10% of the national population), plays a major role in the fight against global warming. With its centres and its management choices, the Syndicate is committed to a policy of environmental protection and to managing the environmental impact of its activities.
In order to save natural resources, it has developed projects designed to transform household waste into energy. Two methods are used.

› Incineration with energy recovery

By avoiding the burning of fossil fuels (gas, oil and coal), the incineration of non-recyclable household waste allows us to reduce CO^2 emissions, which cause the greenhouse effect.
This method also means we can produce energy to feed into the heating network for homes and public facilities.
In a highly urbanised environment, it is the most satisfactory solution in environmental terms. The energy produced in the three SYCTOM energy recovery centres avoids the consumption of the 300,000 tonnes of oil equivalent and heats the equivalent of 300,000 homes, saving 900,000 tonnes of atmospheric CO^2 emissions.

› Methanization

This waste decomposition procedure produces biogas, which is then transformed into electricity, biofuel or heat. Like incineration, methanization can produce energy and make a significant contribution to the reduction of greenhouse gas emissions, while also preserving fossil fuel reserves. Since 2006, SYCTOM has planned two bio-methanization treatment plants in Seine-Saint-Denis.
When brought into service in 2013, they will have the capacity to treat over 400,000 tonnes of household waste and slurry per year. To extend this approach, SYCTOM has, since 2007, been taking part in the European IEE II (Intelligent Energy Europe)

Incineration with energy recovery heats the equivalent of 300,000 homes a year in the Paris agglomeration.

Alternatives to road transport are sought for every new Syndicate project.]

programme designed to promote and develop safe and sustainable energy supplies. While the aim of this programme is to implement concrete measures designed to reduce greenhouse gas emissions, it currently involves sharing knowledge and making progress with research into energy and waste.
In 2007, the Syndicate also launched a wide-ranging study to evaluate the quantities of greenhouse gases emitted by the complete waste management and recovery process.

Developing alternatives to road transport

For SYCTOM, this is a major issue since it enables us to reduce greenhouse gas emissions from fuels. These areas of concern are naturally linked to issues surrounding sustainable development in the region.
SYCTOM is therefore looking at ways to group flows together, installing its sites close to waste production sites and sharing logistical centres used by industrial partners.
Wherever possible, it uses waterways and railways to transport waste from its centres to recycling sites.
Several alternative transport systems are currently operational: the clinkers leaving energy recovery centres (Ivry-Paris XIII, Saint-Ouen and Isséane) are transported by river their processing sites; the bulky items received at Saint-Denis are taken by barge to a specialist sorting centre in Bonneuil-sur-Marne; and the newspapers and magazines sorted in Nanterre and Gennevilliers are also transported by barge to a paper manufacturer and buyer near Rouen, etc.
The Isséane centre will transport 104,000 tonnes of clinkers by waterway every year to their processing sites, avoiding 5,200 lorry journeys. By prioritising alternative modes of transport, SYCTOM is also helping to reduce noise pollution, road traffic, sources of congestion and the risks of accidents.

How does SYCTOM contribute to the development of alternative modes of transport?

**› SYCTOM is conscious of the driving role it can play in raising awareness of the issues linked to alternative modes of transport and environmental preservation.
With the impetus provided by SYCTOM, which specifies very precise criteria in its specifications (alternative modes of transport, creation of a neighbourhood network, etc.), several ambitious projects have come to fruition, such as for example the transportation of newspapers and magazines to the paper manufacturer and buyer UPM Chapelle Darblay in Grand-Couronne (76).
To this end, from 2009 onwards, SYCTOM will use river transport to take nearly 8,000 tonnes of plastic containers to the 40,000-tonnes recycling plant built by the SITA company in Limay (78), avoiding 650 lorry journeys a year. The plant's location will also make it possible to transport products leaving the site by river.**

Diversifying management methods

2007-2008: two new sites

Having been under construction for four years, Isséane, the new centre in Issy-les-Moulineaux, received its first waste in November 2007.

This project brings together two household waste recovery channels under one roof. It houses a centre for sorting selective collections and bulky items (for recycling) and an energy recovery by incineration plant, which will handle the waste from more than one million people (20 authorities and 5 west parisians authorities).

> Isséane, an innovative and environmentally responsible centre

For SYCTOM, Isséane is an unprecedented project which reflects the Group's sustainable development strategy: this new centre illustrates the desire to develop community solutions, use river transport, design buildings conforming to a high environmental quality approach and reduce atmospheric pollution thanks to the quality of its facilities.

With these choices, SYCTOM is reducing pollution caused by its activities and improving waste recovery by using the most appropriate management method.

From 2008 onwards, the heat produced by the incineration of 460,000 tonnes of non-recyclable waste will every year provide heating and hot water for the equivalent of 79,000 homes. The centre's energy production will also guarantee it an independent electricity supply.

The surplus will be sold on. In one year, these advantages will bear fruit in the form of energy savings: Isséane will avoid the consumption of 110,000 tonnes of oil equivalent and the emission of 330,000 tonnes of CO^2.

The Isséane multi-channel centre came into service in late 2007

>A new sorting centre in Sevran

110,000 tonnes of recyclable materials from 11 neighbouring authorities will be processed every year in this new selective collection sorting centre.

The landscaping and architectural choices demonstrate the particular attention which SYCTOM has paid to the environment and to residents.

Sound insulation has received particular attention; the buildings have been designed according to high environmental quality (HQE) principles in order to offer working conditions in tune with employees' requirements. After eighteen months of works, the centre is due to receive its first waste in May 2008.

2007 saw the start of selective collection operations in Sevran

In the pipeline...

The Seine-Saint-Denis département will soon be home to two biological waste treatment plants (the fermentable proportion of the waste will be methanized), producing biogas for energy recovery and compost for reuse in agriculture.

> The multi-channel processing centre in Romainville. To date, this is the furthest advanced project. The centre features a multi-material selective collection sorting centre (capacity: 30,000 tonnes/year), a pre-sorting and river transport centre for bulky items (60,000 tonnes/year) and a sorting/methanization plant (322,500 tonnes/year); it should come into service in 2012.
Access to the Ourcq Canal is one of the major challenges involved in this project since it will give a significant boost to river transport and thus reduce road transport. The second project, undertaken in co-project ownership with SIAPP (Interdepartmental syndicate for sanitation in the Paris agglomeration) in **Blanc-Mesnil/ Aulnay-sous-Bois,** will be unique in that it will manage slurry and waste on the same site. It will be home to a sorting centre for residual household waste and sorting rejects from selective collections (capacity: 80,000 tonnes/year) and will process the slurry from the future neighbouring purification plant (10,000 tonnes/year of dry matter). The planned connection to the rail network should allow us to cut lorry journeys.

> A selective collection sorting centre in Paris XV will be reserved fro selective collections from the 14th and 15th arrondissements in order to develop community solutions. The discovery of remains dating from 8000BC has put a brake on this project. In 2007, the land was prepared for architectural digs carried out in spring and summer 2008. Once up and running, in 2010, this centre will sort 15,000 tonnes of multi-material selective collections a year and prepare the various products for recycling.

>The creation of a pre-sorting and river transport centre for bulky items in Paris XIII Tolbiac is also at the design stage. It will have a threefold role: receiving bulky items from neighbouring arrondissements, reducing journeys between collection, sorting and processing centres, and using river transport to take recoverable objects to a sorting centre and reject items to a landfill site.

The future selective collection sorting centre in Paris, in the 15th arrondissement

DID YOU KNOW?

> These projects will be undertaken in the framework of a HQE (High Environmental Quality) approach. This construction principle builds in environmental quality priorities: quality of working environment (thermal, acoustic, visual and olfactory comfort), energy management (managing energy consumption and use of renewables), stormwater management (managing impermeable surfaces and in-field rainwater harvesting), water saving (recovery and reuse of rainwater, economic appliances and other simple methods).

Architect's impression of the multi-channel centre in Romainville

jor transformation, by 2015, of the current multi-channel centre, with the adoption of new recovery techniques (methanization) which will cut our use of incineration. The scoping studies for the future centre are being undertaken by three multi-disciplinary teams, in collaboration with the parties concerned (the Town of Ivry-sur-Seine and the City of Paris, the Regional Authority and the State, local or environmental associations).
The project is in line with the Group's overall strategy of waste reduction and diversification of management methods. By reducing waste reception capacity by 20% and incineration capacity by 50%, processing will have to produce as much energy as it does currently, with processing by methanization and incineration. With a link to the Seine, the site will enable increased use of river transport as an alternative to road transport, and will reduce vehicle traffic around the centre by 40%. The project plans also build HQE criteria into the design of the facilities and aim to perfectly integrate the centre into its urban environment.

› Two sorting centres, in Paris XVII and Paris XII, will process Parisian selective collections. The first is part of the City of Paris urban development project for the Batignolles site. Approximately 30,000 tonnes/year of selective collections will be processed at this centre, which will also receive household waste collected using pneumatic equipment in this new district.
The second, in Paris XII, is projected to have a sorting capacity of 60,000 tonnes/year of selective collections, 30,000 tonnes more than the present centre in Ivry-Paris XIII, which it will replace.

Informing, raising awareness and involving the public

SYCTOM has established an effective information and consultation procedure to enter into contact with users. Its websites, www.syctom-paris.fr and www.syctom-isseane.com, had over 171,000 visitors in 2007, making updated information and dedicated zones (a local authorities zone and a young people and teachers zone) available to the public in order to better inform them about waste recovery options, the different centres and projects and SYCTOM's prevention strategy. In order to debate **with member local authorities** and share experience and best practices, the Syndicate organises **exchange meetings** to discuss waste collection and recovery. In 2007, for example, meetings with member local authorities enabled SYCTOM to share information about its prevention plan and to discuss topics such as waste sorting quality in order to improve recovery, share waste collection centres, collect e-waste, etc.

[In 2007, 3,210 people visited SYCTOM's facilities..

> In order to present its sites and their specific characteristics, and to conduct exchanges with residentss, SYCTOM regularly **opens it sites to the public. Open days** at the Ivry-Paris XIII, Saint-Ouen and Nanterre processing centres welcome visitors who are keen to find out how a centre operates and is organised. Throughout the year, schools, associations, elected members and personnel from member local authorities, among other groups, come and visit. These visits are a unique opportunity to raise visitors' awareness about the issues involved in sorting and preventing waste at source. Finally, since construction work began at the Isséane site, individual visitors have been hosted in the Information space, and group visits have been arranged all year round. In 2007, 3,210 people visited the facilities.

SYCTOM's attendance at the Salon de la nouvelle ville in Paris, the Environmental Grand Prix of the towns of Ile-de-France and the Local authorities fair also meant that the Syndicate was able to meet a variety of specialist and non-specialist groups.

> With its transparency and partnership approach, SYCTOM involves in its initiatives all project stakeholders, elected members and services in the local authorities which host its processing plants, residents and associations. In addition to **annual meetings of the local information and surveillance commissions** (CLIS), held at the request of the prefect, SYCTOM regularly holds a **consultative commission of local public services and environmental quality charter monitoring committees** which supervise the fulfilment of agreements made by SYCTOM and the operators of its centres. As part of this approach based on exchange and consultation, a **group of permanent observers** was established as soon as construction of the Isséane multi-channel centre began in order to monitor construction work and its impacts on the town and its residents. This experience proved very positive and also provided a forum for communicating information to local residents. Composed of volunteers, residents and employees of local businesses, this group of **19 "sentries"** will in 2008 continue to fulfil its role of exchanging information and monitoring operations at Isséane.

Every year, the Syndicate takes part in shows in order to meet the public

ACTIVITY

Increasingly diverse processing methods for household waste

› Materials recovery: recyclable materials have a second life...
› Energy recovery: creating energy from household waste
› Landfill: an exceptional and temporary measure

> 24 %
of waste collected (including glass) had material elements recovered from it.

> 57 %
of waste processed by SYCTOM was incinerated to produce energy.

> 300,000
home-equivalent units of heating produced from the steam generated in SYCTOM sites.

Materials recovery
recyclable materials have a second life...

Ile-de-France residents recycle more and more every year. In 6 years, the total tonnages of selective collections processed in SYCTOM sites increased by 82% from 91,375 tonnes in 2001 to 166,388 tonnes in 2007.

Nearly 29% of waste received in selective collections is not recyclable: 47,753 tonnes in 2007.

Plastic bottles are made into textile fibres, cardboard becomes cardboard again, paper becomes recycled paper, metal cans can be made into motor parts and glass returns as glass again...

The recycling of some materials means they can be reincarnated and new products can be manufactured. This materials recovery is today a major challenge: first and foremost because it allows natural resources to be preserved by returning already used materials to the manufacturing process and reducing the energy needed to transform them; and also because it gives rise to new markets, which are now expanding rapidly.

However, in order to operate effectively, recycling depends on two essential factors: increasingly widespread selective collections and a growing network of waste collection centres.

› Selective collections

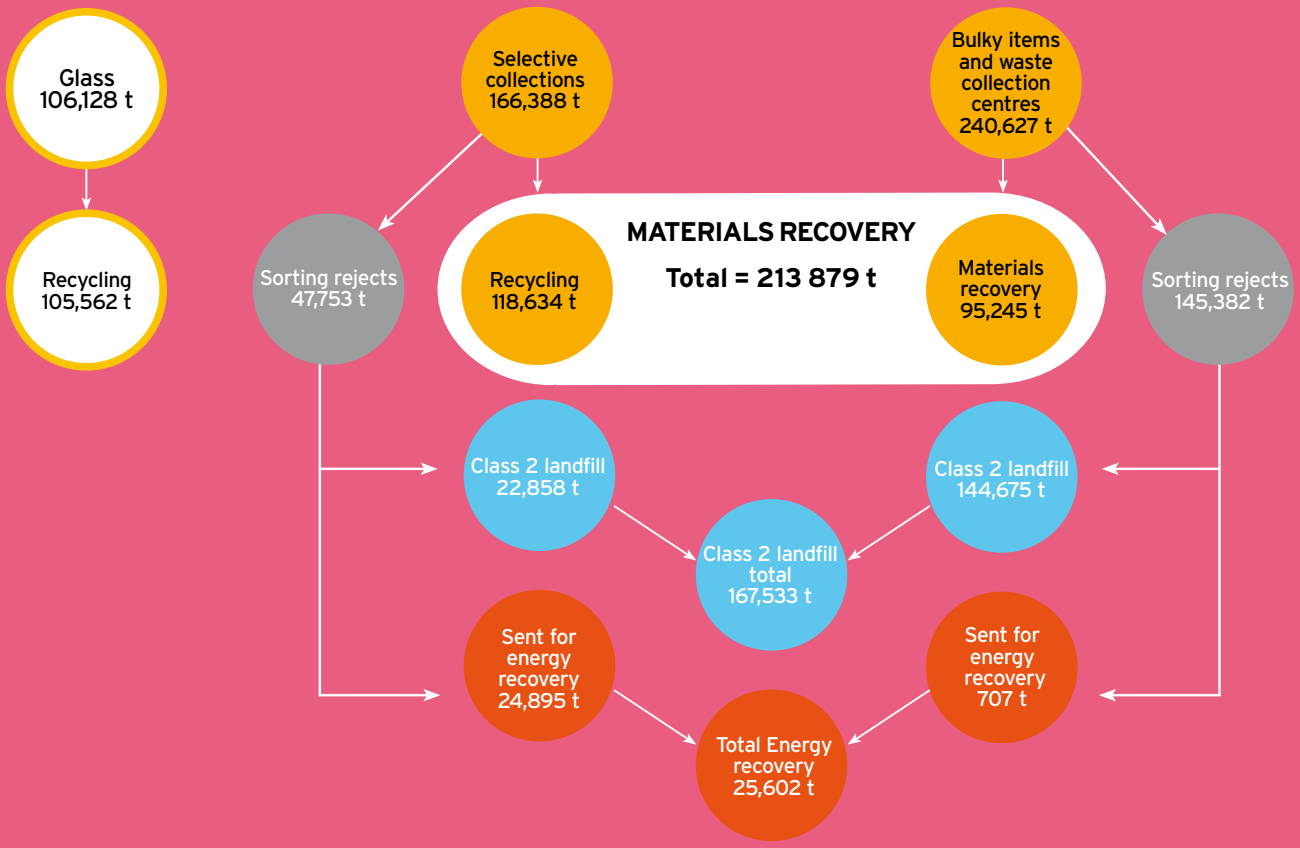
To be recycled, an item of waste must be placed by the resident in the right container (yellow container for packaging and newspapers/magazines, in most cases). Despatched to the sorting centre, it is then mechanically and manually sorted before being baled to be sent to specialist industrial partners (paper makers, foundries, etc.). If recyclable waste is thrown into the household refuse container or placed in the wrong container, it inevitably exits the recycling system for that material. Without exception, container glass does not enter the SYCTOM system. Member towns organise their own collections and send it directly to the glassworkers.

Boosting reuse

› A wide range of objects are thrown away while they are still usable (electrical and electronic equipment, furniture, clothing, etc.).
SYCTOM encourages member local authorities to set up efficient separated collections or voluntary collection sites to encourage users to deposit their items, thus giving them a new life. These community responses should also be an opportunity to support the local development of new, small economic concerns (recycling businesses, start-up firms or representatives of the mutual, not-for-profit sector, for example).

Materials recovery

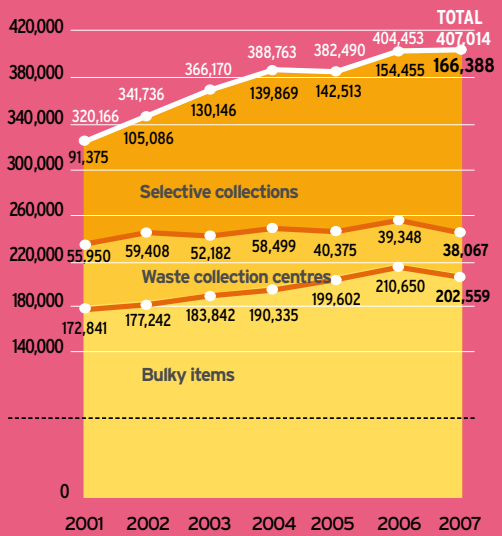
The organisation of different materials recovery networks



Rise in collections

sent for materials recovery since 2001

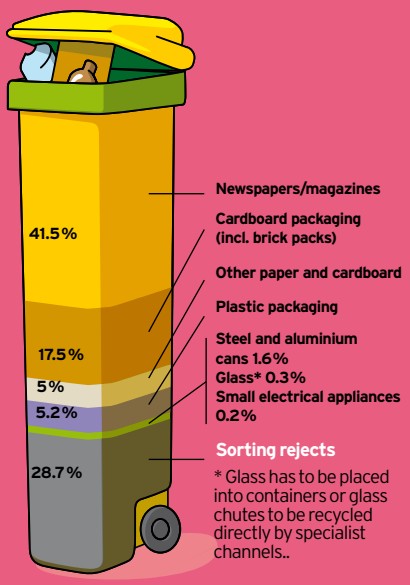
Cumulative curves (tonnes)



Selective collections have increased most strongly: up 82% since 2001.

What makes up a selective collection container?

(recyclable waste)



* Glass has to be placed into containers or glass chutes to be recycled directly by specialist channels..

The quality of waste sorted by residents could be improved. More than 30% of materials thrown into recycling containers cannot be recycled.

› Sorting rejects: poorly sorted recyclable waste – which may be dirty, meshed together, too small or have been placed in plastic bags – exits the recycling process and is taken to landfill sites or for incineration with energy recovery. In the future, a proportion of the sorting rejects will be sent to SYCTOM methanization plants in order to reduce quantities sent for landfill or incineration.

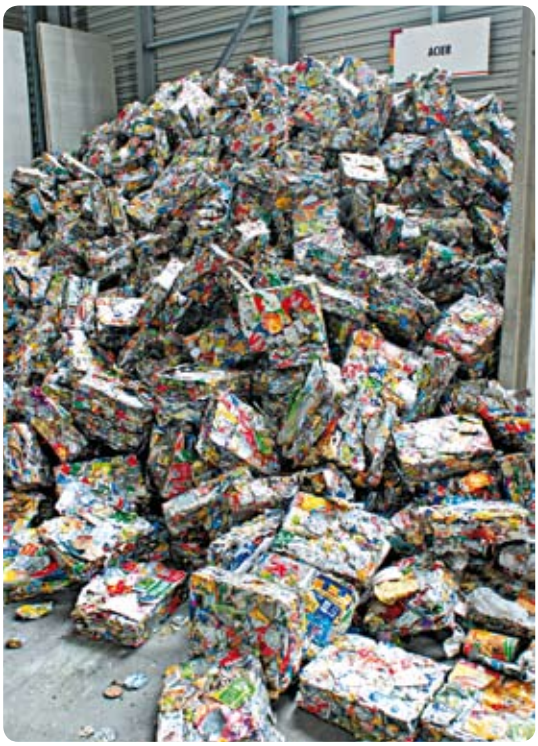
› Sorting errors: this is waste placed in a sorting container but which is unsuitable for recycling (plastic bags and films, blister packs, plastic trays, etc.).

> Bulky items collected separately and waste taken to collection centres are partly recovered (mainly metals, cardboard, rubble, wood, textiles and glass). They are taken to adapted sorting centres to recover the recyclable materials or sent directly along reuse channels to be recycled.

> Materials from the incineration of household refuse are reused. Clinkers are used in public works; iron and aluminium in the iron and steel industry.

Improving sorting to recycle more waste

> Selective collections are growing strongly.
In 2007, 166,388 tonnes of selective collections passed through SYCTOM centres. This large volume illustrates once more the strong rise in tonnages collected every year. In six years (between 2001 and 2007), they rose by 82%. This encouraging growth is based squarely on a change in mentalities in favour of waste sorting: this citizen action is now part of daily life for millions of Ile-de-France residents. The implementation of selective collection in all member local authorities and the awareness-raising campaigns undertaken by SYCTOM and local authorities designed to raise the profile of waste recovery have made a significant contribution. The Syndicate also incentivises local authorities responsible for collection by paying them a lump sum of €125.89 per tonne entering the recycling process.
Despite these promising results, there are initiatives in the pipeline designed to improve the quality and quantity of selective collections. One of SYCTOM's priorities, for instance, is to help to boost member authorities' performance levels.



Steel, one of the materials sorted, is sent in bundles to recycling companies

> The recovery rate for bulky items is rising strongly: from 31% in 2006 to 37% in 2007.
This rate illustrates the effectiveness of the quality assurance procedure used when items enter the sorting centres. Implemented in collaboration with member authorities, this procedure aims to improve the recovery of bulky items by reducing the levels of undesirable elements (such as household refuse, green waste, special or toxic household waste, city refuse bags, etc.). This selection system led to a reduced quantity of bulky items, down 4% on 2006 (202,559 tonnes in 2007 compared with 210,650 tonnes in 2006). Moreover, SYCTOM consolidated its recovery requirements in the new operating contracts.

> In 2007, the three SYCTOM waste collection centres received 38,067 tonnes of voluminous or toxic household waste (compared with 39,348 tonnes in 2006). The fall in quantities received can be explained by the application of rules governing access to these sites, which are reserved for single, private individuals, and by the rise in the number of authority or inter-authority waste collection centres. By granting subsidies to authorities to encourage them to construct sites or support the redevelopment of existing facilities, SYCTOM has made a major contribution to filling in this neighbourhood network.

SYCTOM sorting centres

ISSÉANE (ISSY-LES-MOULINEAUX)

Opened: December 2007
Features:
› 1 selective collection sorting centre (20,000 tonnes/year)
› 1 bulky item sorting centre (30,000 tonnes/year)
› 1 energy recovery plant (460,000 tonnes/year)
Distinguishing feature: Designed and built according to high environmental quality (HQE) criteria, this is the only centre of its kind, and with two-thirds of it below ground, is a model of successful urban integration.
It will sort the selective collections from 14 Hauts-de-Seine and Yvelines local authorities.

IVRY-PARIS XIII

Opened: 1997
Features:
› 1 selective collection sorting centre
› 1 energy recovery plant
› 1 waste collection centre
Capacity: 36,000 tonnes/year in the sorting centre, accounting for the selective collections from 19 local authorities (900,000 residents).

NANTERRE

Opened: 2004
Features:
› 1 selective collection sorting centre
Capacity: 35,000 tonnes/year
Distinguishing feature:
Constructed according to high environmental quality principles, it processes the selective collections from one million residents of the Hauts-de-Seine and west Paris.

ROMAINVILLE

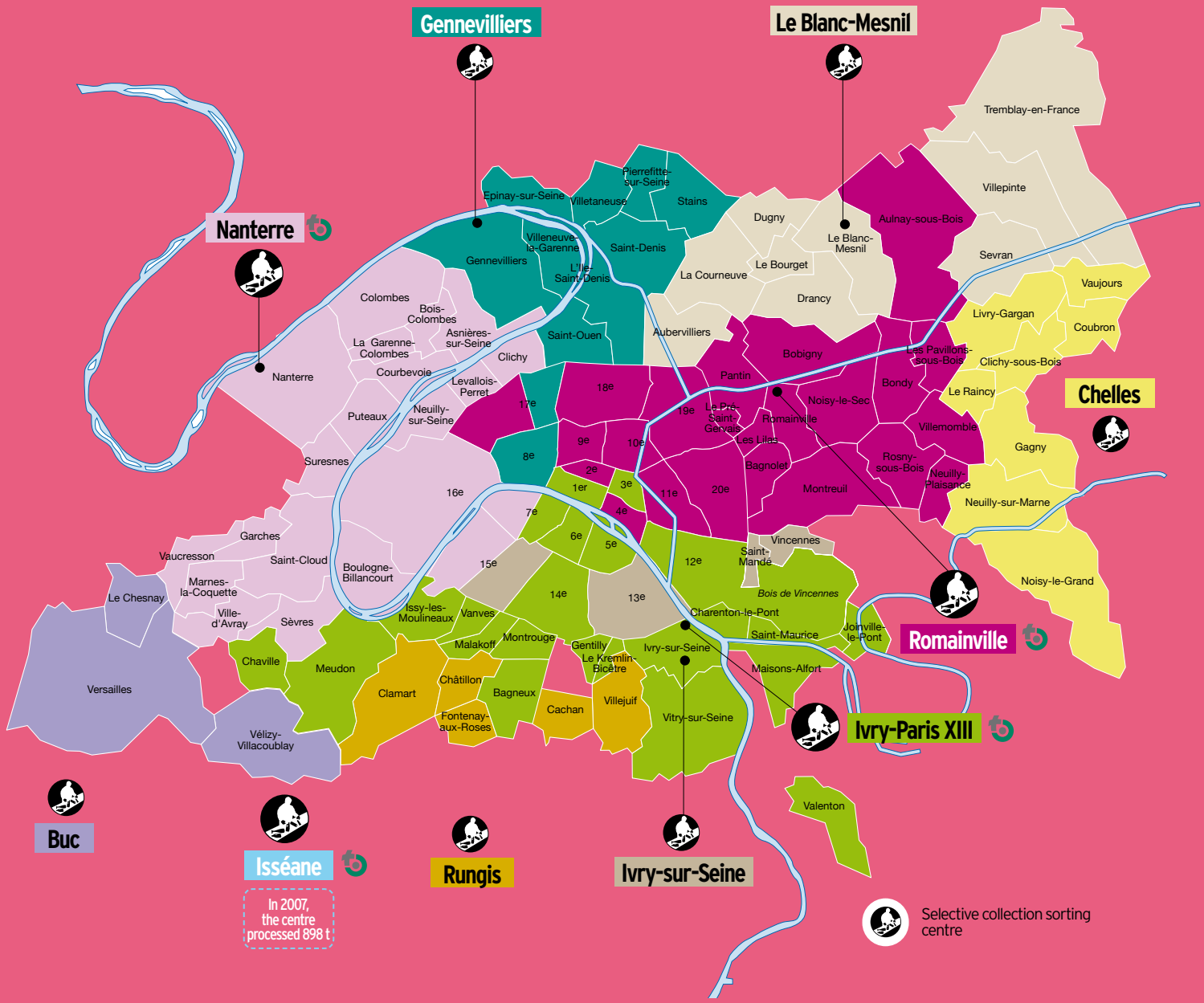
Opened: 1993
Features:
› 1 selective collections (45,000 tonnes/year) and bulky items (75,000 tonnes/year) sorting centre
› 1 household refuse transfer centre (350,000 tonnes/year)
› 1 waste collection centre
Distinguishing feature:
› Biggest high-capacity sorting centre in France.
› After redevelopment, by 2013 the centre will be home to a household refuse sorting and methanization plant, a selective collection sorting centre and a bulky item pre-sorting centre.

SAINT-DENIS

Opened: 1985
Features:
› 1 pre-sorting and river transport centre for bulky items
› 1 waste collection centre
Capacity: 60,000 tonnes/year
Distinguishing feature: The recoverable bulky items are transported by river to a specialist sorting centre. The renovation process, launched in 2008, will be undertaken according to HQE principles and will see the closure of the waste collection centre. Eventually, the total tonnages of bulky items received and pre-sorted will be shipped away by barge.

Selective collection sorting centres

mobilized by SYCTOM in 2007 and their catchment areas



Selective collections

In tonnes

Centre	Tonnage received	Tonnage recovered	Operator
Ivry-Paris XIII	36,271	24,485	SITA
Nanterre	34,399	25,613	Véolia Propreté
Romainville	37,705	25,626	Véolia Propreté
Isséane	898	115	SYCTOM
Buc	7,048	5,165	Nicollin
Chelles	7,401	5,695	Généris
Gennevilliers	12,932	9,494	SITA
Ivry/Blanc-Mesnil	24,133	17,577	Paprec
Rungis	5,601	4,864	SIEVD
Total	**166,388**	**118,634**	

Bulky items and waste collection centres

In tonnes

Centre	Bulky items		Waste collection centres		Operator
	Tonnage received	Tonnage recovered	Tonnage received	Tonnage recovered	
Ivry-Paris XIII			3,886	3,180	SITA
Romainville	83,476	34,642	28,398	12,438	Véolia Propreté
Saint-Denis	30,422	12,583	5,783	4,453	Véolia Propreté
Isséane	192				SYCTOM
Arcueil	24,026	2,643			SITA
Buc	11,084	1,178			Nicollin
Gennevilliers	28,348	14,658			SITA
Ivry	12,205	2,984			Revival
Ivry	12,806	6,486			CFF
Total	**202,559**	**75,174**	**38,067**	**20,071**	

Buy-back channels
for recyclable materials

Material	Channel	Type of purchase	Tonnage recycled	Equivalence in packaging	Enabling the manufacture of recycled products
Newspapers/magazines	UPM-Chapelle Darblay	Direct contract	69,036		345 million newspapers (150 g)
Recyclable domestic packaging (cardboard)	Papeterie de la Seine	Guaranteed purchase	28,226	392 million cardboard cereal boxes (72 g)	127 million shoeboxes (200 g)
Liquid food packaging (brick packs)	Dalle Hygiène Production	Guaranteed purchase	965	37 millions de bricks packs (1 litre)	6,5 million rolls of toilet paper (100 g l'unité)
Acier issu des collectes sélectives et des mâchefers	TIRFER	Guaranted purchase	35,657	392 million food tins (4/4)	43.8 million 700g pétanque boules
Steel from selective collections and from clinkers	RECOVCO-AFFIMET	Guaranteed purchase (33 cl)	133	9 million de tin cans (1 kg le cadre)	70,500 kick scooters
Aluminium from selective collections	COREPA /CFF	Guaranteed purchase	2,039	44,860 m^3 of aluminium	1.08 million de trottinettes (1 kg frame)
Plastics (bottles)	SITA	Guaranteed purchase	8,609	227 million plastic bottles (1,5 litre)	17 million fleece jumpers (400g/unit)

The growth in selective collections

In 2007, in order to sort selective collections and bulky items, SYCTOM used its own sites in Ivry-Paris XIII, Nanterre, Romainville, Saint-Denis and Isséane in Issy-les-Moulineaux (in December).
In addition, eight further external centres were recruited, in the framework of public contracts, at Blanc-Mesnil, Buc, Chelles, Gennevilliers, Ivry-sur-Seine and Rungis.

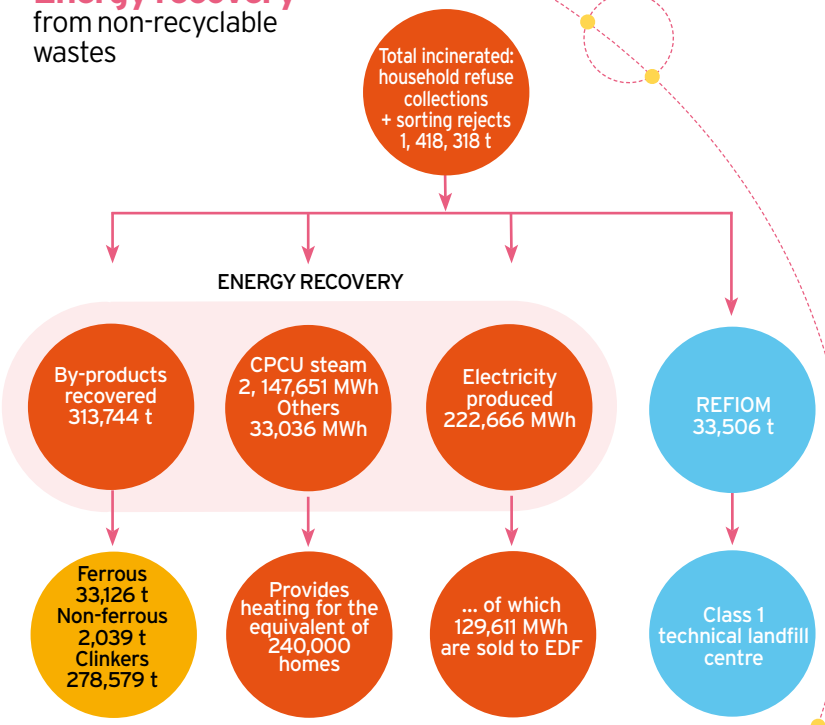
Energy recovery creating energy from household waste

The best form of waste is of course waste that is not produced. For all other, existing forms, SYCTOM is committed to developing "useful" processing methods.

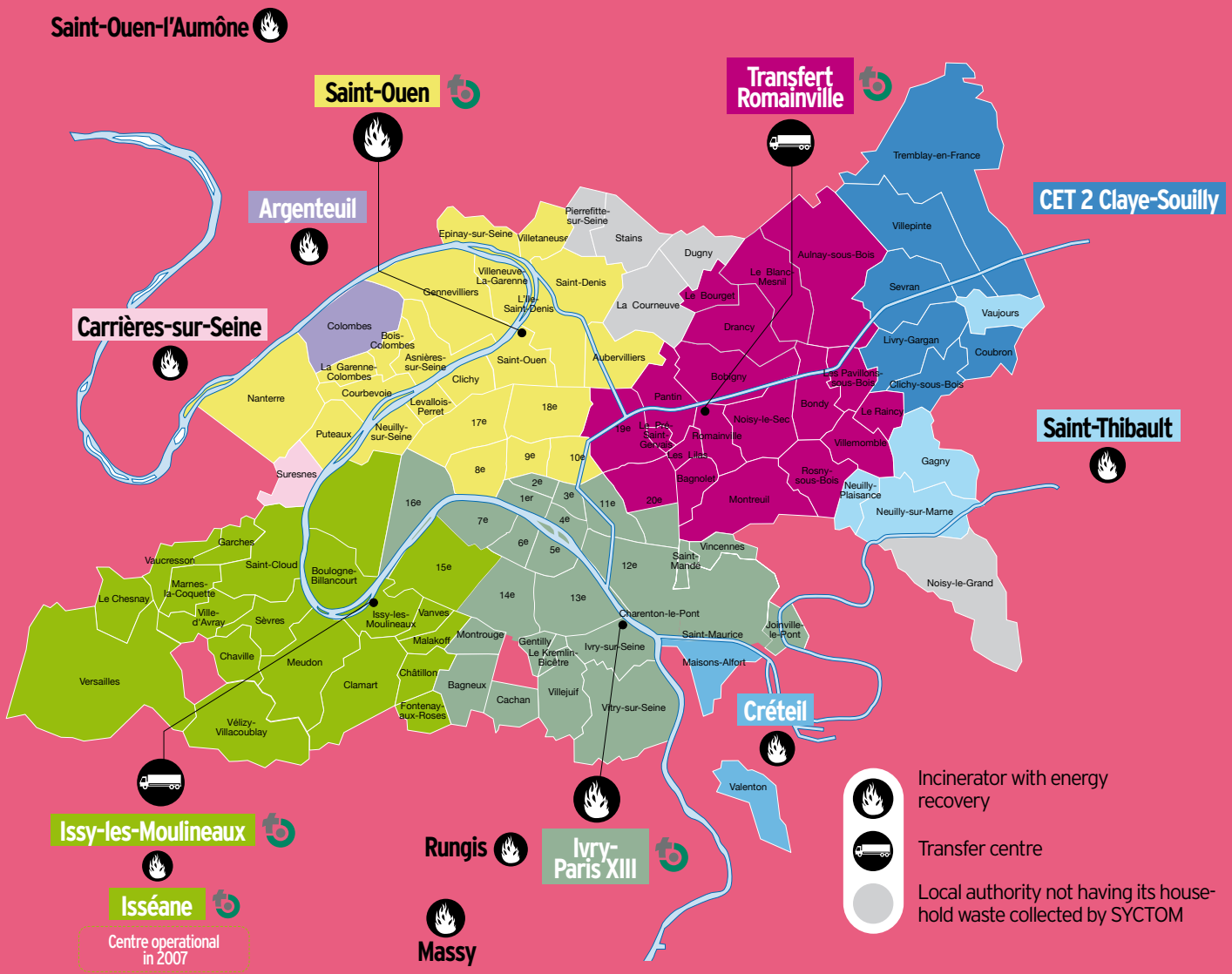
In addition to materials recovery, energy recovery by burning non-recyclable waste appears to be one of the most satisfactory solutions for the environment. Firstly, because it requires little surface area which, in a dense urban area, has a range of advantages; secondly, because the heat released by incinerating waste creates energy in the form of electricity and steam and isolates reusable materials. In 2007, three SYCTOM incinerators with energy recovery (the Isséane centre coming into service in December) and the eight external centres which it used processed a total of 1, 418,318 tonnes of waste, and produced:

- 2,147,651 MWh of steam. Produced by waste incineration, it is sold by SYCTOM centres to the Paris Urban Heating Company (CPCU) and heats the equivalent of 220,000 homes. The CPCU manages the heating needs of Paris and the towns of Vitry, Choisy, Boulogne-Billancourt, Issy-les-Moulineaux and Saint-Ouen. Directed into underground CPCU channels, then into the buildings served by the network, the steam is converted into hot water for radiators and the clean, hot water system.
Since incineration activity ended for good at the Issy-les-Moulineaux centre in 2006, steam production capacities have been temporarily cut, but the opening of the incineration plant at the multi-channel Isséane centre in December 2007 put an end to this transitional situation. SYCTOM is again in a position to heat the equivalent of 300,000 homes a year. Using this steam recovery system, the Syndicate manages to avoid the use of 6,000 collective boilers for buildings and contributes to the fight against greenhouse gas emissions;
- 33,036 MWh of steam, sold by external incineration plants;
- 222,666 MWh of electricity. Some of the electricity generated powers the recovery plants themselves; the surplus (129,611 MWh) is sold to EDF;

Energy recovery from non-recyclable wastes



The energy recovery plants
mobilized by SYCTOM in 2007 and their catchment areas



Centre	Tonnage processed	Recovery					Operator
		Steam sold (MWh)	Electricity sold (MWh)	Clinkers (t)	Ferrous (t)	Non-ferrous (t)	
Ivry-Paris XIII	669,989	921,399	78,781	127,523	16,812	559	TIRU
Isséane	12,800	0	0	1,205	16	0	SYCTOM
Saint-Ouen	607,819	1,226,252	9,677	121,870	14,550	1,365	TIRU
Argenteuil	49,857	16,034	20,071	12,468	212	25	Novergie
Carrières-sur-Seine	17,839	2,548	1,018	3,264	258	41	Novergie
Créteil	12,707	0	6,479	2,681	311	32	Novergie
Massy	4,531	6,553	0	1,092	17	5	Curma
Monthyon	1,981	0	749	453	24	0	Véolia Propreté
Rungis	3,472	3 478	0	654	73	1	Véolia Propreté
Saint-Ouen-l'Aumône	4,373	4,423	848	853	37	0	Véolia Propreté
Saint-Thibault-des-Vignes	29,735	0	11,988	6,516	816	11	Novergie
Autres	3,215						
TOTAL	**1,418,318**	**2,180,687**	**129,611**	**278,579**	**33,126**	**2,039**	

The quality of atmospheric emissions from SYCTOM's energy recovery plants exceeds regulatory requirements.]

- 33,126 tonnes of ferrous metals, 2,039 tonnes of aluminium, 278,579 tonnes of clinkers. The materials produced by combustion are also recovered. The metals are delivered to the metallurgical industry to produce new alloys. Clinkers are treated to be used in public works, thus avoiding extracting raw materials from the natural environment;
- 33,506 tonnes of residues from smoke scrubbing after household waste incineration (REFIOM), concentrating pollutants initially present in the waste or generated by the incineration process. After treatment to render them inert, they are landfilled in specialist centres.

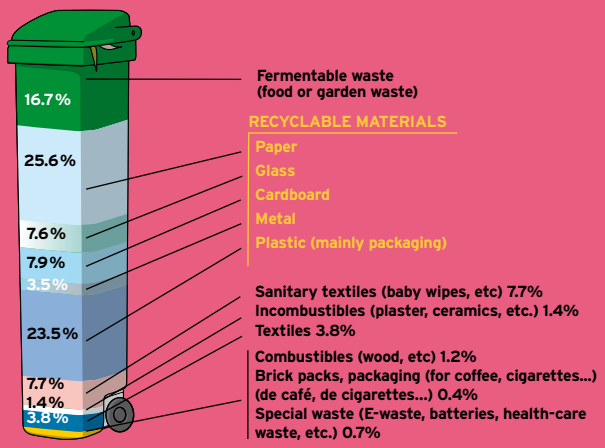
SYCTOM undertook, prior to the implementation of emissions standards in December 2005, major work to improve the smoke-scrubbing system at its Ivry-Paris XIII and Saint-Ouen sites. This high-quality equipment has significantly reduced the quantities of pollutants in their atmospheric emissions. They are now at levels below the regulatory thresholds. Isséane, the new SYCTOM incineration plant with energy recovery at Issy-les-Moulineaux, is equipped with an ultra-effective smoke-scrubbing system which guarantees emission quality which exceeds the requirements of European regulations.

Monitored atmospheric emissions from centres

SYCTOM undertakes continual checks on its atmospheric emissions: monitoring devices placed in chimneys provide the operating teams in the energy recovery plants with real-time feedback. In the event that the system malfunctions, technical staff are warned by an alarm system which allows them to perform the necessary modifications immediately.
Every quarter, SYCTOM sends its analyses to the relevant government department and to the Technical Department for the Inspection of Classified Facilities (STIIC, the equivalent of the DRIRE (Regional Directorates for Industry, Research and the Environment for Paris and the Petite Couronne (the area composed of the three départements bordering the city of Paris), for which the Préfecture de Paris is responsible), which is also authorised to perform unannounced checks.
An external check, which is more rigorous in regulatory terms, is also performed: an independent laboratory carries out sporadic checks in the centre every quarter, during the full operating timetable. The full results of this monitoring programme are communicated to neighbouring local authorities, the Local Commissions for Information and Surveillance (CLIS), the Environmental Quality Charter Monitoring Committee and, finally, published in the public information dossier which SYCTOM submits to the Préfecture every year.

The incineration of waste is monitored in real time, 24/24 and 7/7, from the command and control room.]

Composition of a residual household waste container

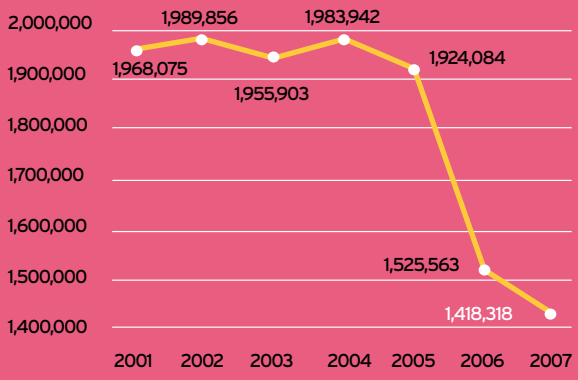


Too much recyclable material is thrown away with conventional waste. More than 60% of waste thrown away into traditional domestic waste containers is made up of recyclable elements: paper, cardboard, metal, plastic and glass bottles. Most of these objects should be placed in the recycling container and recycled. Special waste, which contains harmful substances, should not be thrown away with traditional waste. It must be collected by specific collection channels and processed by specialist companies

Source: Modecom 2007, method for characterising domestic waste developed by Ademe.

Incinerated waste

a temporary fall in tonnages of waste incinerated by SYCTOM
(all centres included)



This exceptional situation is linked to the stoppage of incineration activity at Issy-les- Moulineaux on 23 February 2006, which led to reduced energy recovery capacity within the Syndicate until the opening of the Isséane plant (in December 2007).

The management of atmospheric emissions

from incinerators with energy recovery belonging to SYCTOM in the Paris agglomeration
Values from combustion in 2007 (NORISKO and SOCOR Laboratories)

Nature of emissions	Emissions limits in force since 8/12/2005	Ivry-Paris XIII				Saint-Ouen				Isséane (first results from self-checks)
	Ministerial decree of 20/09/2002	Feb 07	Apr 07	Jul/Sep 07	Nov 07	Jan 07	Apr 07	Jul 07	Oct 07	Dec 07
Concentrations in mg/Nm³ at 11% of O_2										
Particles	**10**	0.3	4.6	12.5	6.6	3.5	1.4	2.3	1.4	1.05
Hydrochloric acid	**10**	5.9	3.6	1.8	0.8	4.5	1.3	1.7	1.1	4.19
Hydrofluoric acid	**1**	0.2	0.5	0.1	0.05	0.05	0.4	0.1	0.1	0.04
Sulphur dioxide	**50**	22	14	32	13	23	14	14	15	2.14
Nitrogen oxides	**80**(1)	83	70	49	49	51	48	44	52	28.2 (2)
Cadmium + thallium	**0.05**	0.043	0.006	0.009	0.009	0.011	0.004	0.007	0.008	-
Mercury	**0.05**	0.006	0.002	0.007	0.002	0.008	0.006	0.016	0.007	-
Antimony + arsenic + lead + chrome + cobalt + copper + manganese + nickel + vanadium	**0.50**	0.15	0.11	0.21	0.29	0.29	0.10	0.27	0.13	-
Dioxins and furans (in ng/Nm³)(3)	**0.10**	0.055	0.068	0.031	0.013	0.011	0.010	0.003	0.007	-

(1) The Ile-de-France atmospheric protection programme sets the emissions limit at 80mg/Nm³ (the threshold set by the European directive is 200mg/Nm³).
(2) At Isséane, the operational decree passed by the Prefect of the Hauts-de-Seine département sets the nitrogen oxides emissions threshold at 70mg/Nm³ (rather than the threshold of 80mg applicable in the Ile-de-France region).
(3) Ng/Nm³ = nanogram (a billionth of a gram) per cubic metre

Landfill
an exceptional and temporary measure

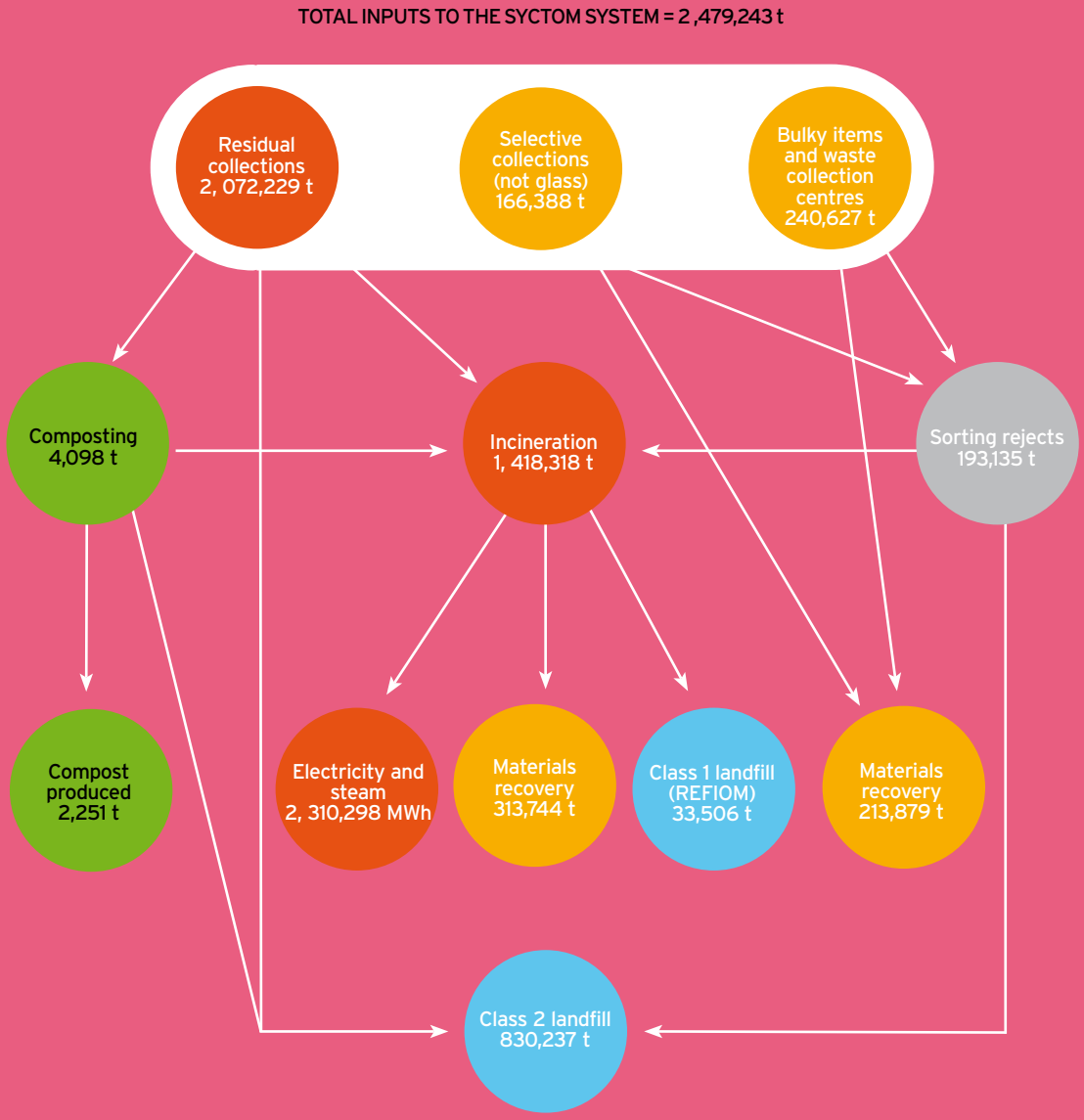
Landfill is reserved for "residual" waste, in other words waste from which the recyclable elements have been extracted, or which cannot be recycled in acceptable technical or economic conditions. Depending on geographical area, this term covers very different realities. In an area which does not have an energy recovery plant, any waste from which the organic or material elements cannot be recovered is said to be residual. However, if an area does have such a plant, the waste will be recovered to provide energy. For SYCTOM, landfill is an option of last resort. In 2007, 32% of waste was sent to landfill: unrecovered bulky items, scrap from waste collection centres, sorting rejects from selective and conventional collections which the Syndicate cannot process in its energy recovery plants because of a lack of available capacity. But this level, skewed by the end of incineration activity at Issy-les-Moulineaux in 2006, is exceptional.
While in recent years SYCTOM has been forced to landfill more of its waste, the opening of Isséane should enable it to dip below the 15% barrier in 2008.

> An imperative target: making a significant reduction in landfilled waste.
With environmental protection a key priority, SYCTOM aims to keep the amount of waste sent to landfill to a

When it cannot be recovered, household waste is sent to a technical landfill centre.

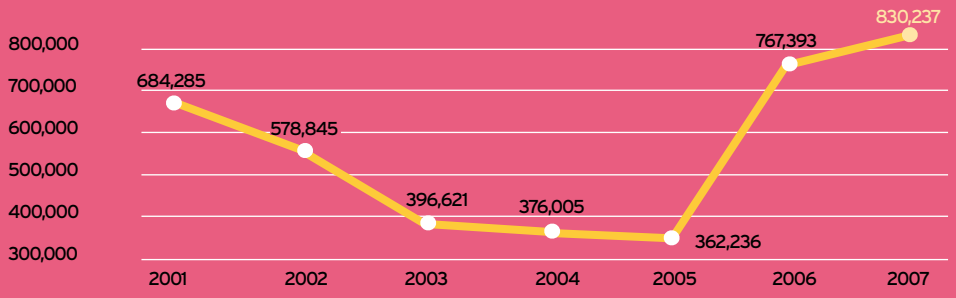
Landfilling

"residual" waste



An exceptional and temporary rise

in tonnages of waste landfilled in class 2 by SYCTOM



This temporary situation is linked to the stoppage of incineration activity at Issy-les-Moulineaux on 23 February 2006, which led to reduced energy recovery capacity within the Syndicate. Pending the opening of Isséane, waste was incinerated or landfilled in centres in Ile-de-France and in the Oise.

Residual waste being sent to landfill is transported by river.

minimum. To achieve this aim, it intends to diversify its processing methods (using methanization, for instance). It has also chosen to use additional incineration plants, enabling it to increase its energy recovery capacities, particularly until the Isséane centre comes on stream in December 2007.

› Sites placed under intensive surveillance.
As it operates in a very dense urban area, SYCTOM does not have a technical landfill centre. It calls on regulated private sites located outside its area of operation. These ISO 14001 certified sites implement strict standards which guarantee the environmental quality of their activity (compliance with regulatory obligations, identifying and managing technical risks and accidental contamination, continual improvement procedures, information, etc.).
In 2007, SYCTOM used several landfill sites:
- a class 1 landfill site in Villeparisis (Seine-et-Marne), which processed 30,134 tonnes of residual waste from SYCTOM in the form of ash and slurry produced by treating incineration smoke;
- class 2 landfill sites in Seine-et-Marne (Claye-Souilly, Isles-les-Meldeuses, Soignolles), in the Val-d'Oise (Bouqueval) and in the Oise (Crépy-en-Valois, Liancourt-Saint-Pierre). These centres processed 758,617tonnes of waste;
- a class 3 landfill site in Claye-Souilly, which in 2007 processed a total of 24,473 tonnes of inert waste, mainly from SYCTOM centres.

Landfill

Landfill centres are classified into three categories, according the type of waste they process.

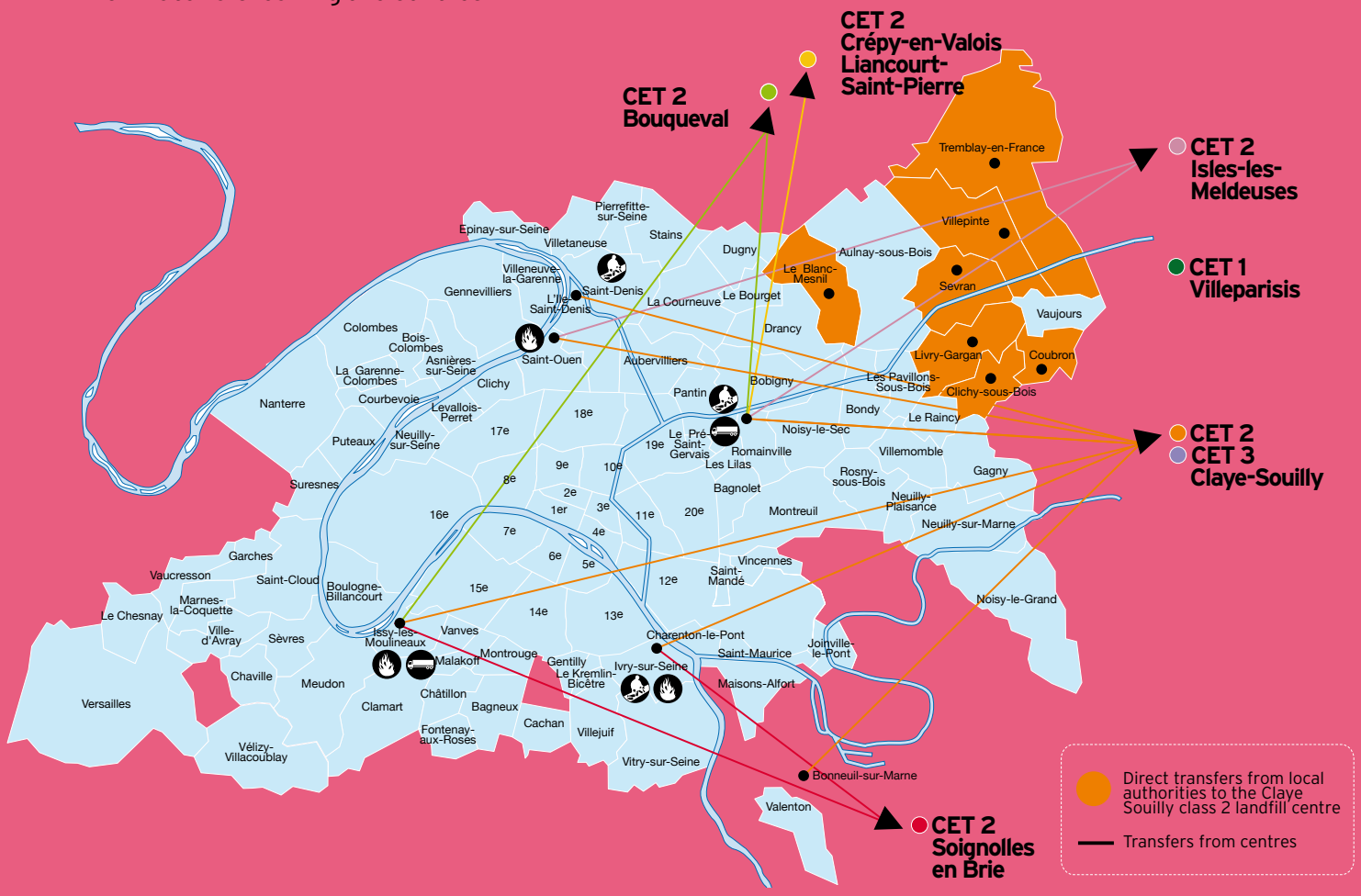
› Class 1 landfill sites:
reserved for dangerous waste (industrial waste and, in the case of SYCTOM, REFIOM (Residues from smoke scrubbing after household waste incineration) and slurry from the cleaning up of fume washwater). This toxic waste is stabilised before storage in order to prevent any changes to the residues over the long term. Once they are inert and solidified, they are stored in indexed waterproof compartments to ensure their traceability.

› Class 2 landfill sites:
reserved for non-dangerous waste (residual household waste, unrecovered bulky items, sorting rejects from selective collections or composting). They are governed by strict regulations covering the recovery of biogas, rainwater drainage, the recovery and treatment of leachates, the waterproofing of the sub-surface and the quality of the water table.

› Class 3 landfill sites:
reserved for inert waste such as rubble.

Landfill

of materials leaving the centres



Tonnages sent to landfill centres under SYCTOM contracts

CET (landfill centre)	Class	Waste from	Tonnage	Operator
Villeparisis	1	Ivry-Paris XIII Incinerator Issy-les-Moulineaux XIII Incinerator Saint-Ouen Incinerator	15,853 226 14,055	SITA
Claye-Souilly	2	Romainville Transfer Centre Issy-les-Moulineaux Transfer Centre Direct transfers of household refuse Ivry-Paris XIII Incinerator Saint-Ouen Incinerator Saint-Denis Bulky Items Sorting Centre Claye-Souilly Bulky Items Sorting Centre Bonneuil Bulky Items Sorting Centre	222,724 140,056 71,569 31,917 18,709 10,304 65,485 9,423	REP/Véolia
Isles-les-Meldeuses	2	Romainville Bulky Items Sorting Centre Saint-Ouen Incinerator	53,715 588	Sablières Capoulade
Bouqueval	2	Romainville Transfer Centre Issy-les-Moulineaux Transfer Centre	32,283 25,805	REP/Véolia
Soignolles-en-Brie	2	Issy-les-Moulineaux Transfer Centre Ivry-Paris XIII Incinerator	23,805 345	SITA
Crépy-en-Valois/Liancourt-Saint-Pierre	2	Romainville Transfer Centre	51,888	SITA
Claye-Souilly	3	Romainville Bulky Items Sorting Centre Saint-Denis Bulky Items Sorting Centre Ivry Waste Collection Centre Claye-Souilly Bulky Items Sorting Centre	11,695 3,585 2,180 7,013	REP/Véolia

Controlled and sustainable management

> A well-managed budget despite an expensive transition
> Stable organisation

> €451 millions

the budget of SYCTOM in the Paris agglomeration in 2007.

> 73%

of SYCTOM's operating expenditure is spent on the operating expenses for its waste processing plants.

> - 16%

The reduced investment budget for 2007 is linked to the end of works at Isséane.

A well-managed budget despite an expensive transition

Operating expenses for 2007 rose to €290.75m, compared with €279.04m in 2006. Several factors lie behind this slight increase (+4.2%): the end of incineration activity at Issy 1 led to an increase in operating agreement expenditure in 2007 (accounting for 73% of expenses: €212m), combined with loss of income from the sale of steam. The temporary management of Issy 1 lasted 12 months in 2007, and not 10 months as in 2006. Transfer expenditure thus came to €17.3m. In addition to these expenses, there were costs caused by the incineration agreements signed with private centres and, above all, the placing of tonnages of residual waste in class 2 landfill. The expenses linked to the new test phase operating agreement for Isséane rose to €2.7m in 2007. Furthermore, the cost of investment began to appear under operating expenditure, because we recorded a €2.6m increase in financial costs generated by loans, and a €2.3m increase in depreciation allowances (including works on the additional treatment of smoke in Saint-Ouen and Ivry-Paris XIII, but not yet the Isséane operation, undelivered).

Finally, other operating costs increased by more than €1m, as a result of fluid consumption in the Isséane tests. In order to deal with this transitional period pending the delivery of Isséane and to anticipate this complicated administration period, SYCTOM set aside the necessary reserves in its previous budgets. It also continued to implement its cost management policy, by effectively fostering competition and despite an inflationist context (linked, for instance, to the rising prices of fossil fuels).

>Continuing support for selective collections

Since 2001, SYCTOM has made a significant contribution to boosting selective collections by providing financial assistance to local authorities. Amounting to €125.89 per input tonne, this support touched a total of €20.7m in 2007, a 9% increase on 2006, taking into account the rise in tonnages. SYCTOM also pays subsidies to local authorities which are home to a processing centre, or which are geographically distant from one (€1.5m).

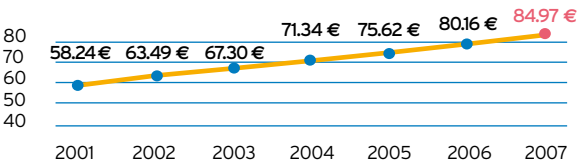
>Human resources costs: still 2% of the budget

The proportion of personnel costs as a total of the budget remains 2.09%. Following a period when staff were recruited in order to manage industrial projects, the SYCTOM workforce has settled at 115 posts.

> The service charge: increase fixed at 6% according to continuing agreements in the framework of the mandate. The service charge is a contribution to the cost of the waste disposal service. It is formed of a sum linked to the tonnages of waste to be processed (€84.97 per tonne in 2007) and another sum linked to population numbers (€6.56 per resident). These two amounts have increased by 6% a year since 2001 and enabled us to cope with the transitional management costs at Issy-les-Moulineaux in 2006 and 2007. The total amount of these contributions (€247.31m) accounts for 85% of operating income.

The service charge

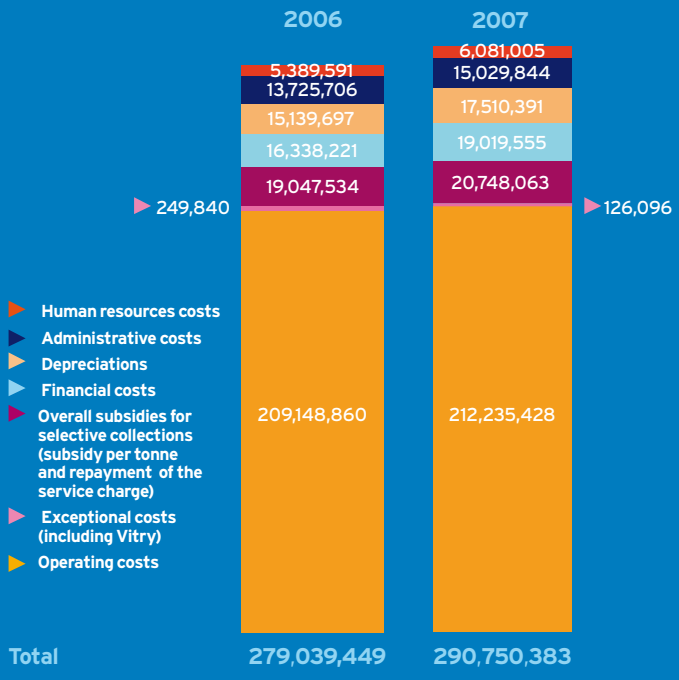
Change since 2001
per tonne of waste processed



The annual 6% increase in the service charge was passed by the Committee to anticipate significant cost overrun generated in 2006 and 2007 by the transitional management of household waste previously processed at Issy 1.

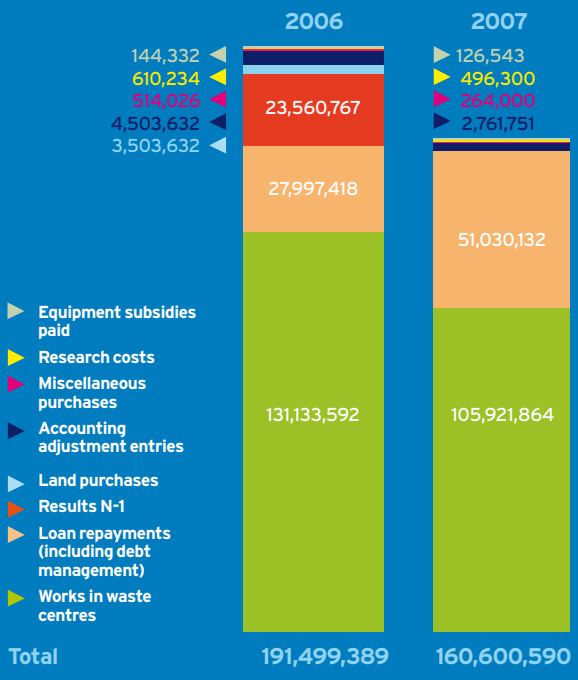
Operational expenditure

in € tax included



Investment expenditure

in € tax included



Operational income

in € tax included

Administrative account	2006	2007
Contributions from member local authorities	233,581,213	247,311,327
Allocations, subsidies (including Éco-Emballages) and contributions	13,089,621	17,060,711
Other products from running management (including marketing of sorted products)	18,405,878	17,054,171
Releases of provisions	17,000,000	-
Exceptional products	1,709,544	1,306,653
Results N-1	3,519,142	8,265,375
Total	**287,305,398**	**290,998,237**

Investment income

in € tax included

Administrative account	2006	2007
Loans, including debt management	161,179,597	99,963,270
Subsidies	10,099,749	4,371,051
FCVAT	23,726,180	29,116,926
Depreciation of assets + costs to be spread	15,139,697	17,510,391
Provision	-	-
Other accounting adjustment entries	867,617	3,352,916
Reserves and results N-	-	19,513,452
Total	**211,012,840**	**173,828,006**

Investment programme

by site (in €m before tax)

Site	Nature of the programme	Operating period	Work financed in 2006 before tax	Work financed in 2007 before tax	Total investment in €m before tax
Isséane	Transfer centre (including land)	1998-2008	92.78	77.46	600.99
Saint-Ouen	Smoke scrubbing	2001-2008	2.73	0.17	40.17
Ivry-Paris XIII	Smoke scrubbing	2003-2008	4.92	2.95	47.21
Issy 1	Temporary transfer centre	2005-2007	3.26	0.00	5.56
Saint-Ouen	Bringing up to standard and ongoing improvements	2006-2007	0.04	0.51	0.55
Ivry-Paris XIII	Bringing up to standard and ongoing improvements	2006-2007	1.21	0.37	1.58
Nanterre	Sorting centre	1999-2006	0.14		20.21
Sevran	Sorting centre	2003-2008	3.08	4.93	15.50
Paris XV	Sorting centre	2004-2009	0.26	0.39	27.91
Nanterre	Bringing up to standard and ongoing improvements	2007		0.11	0.11
Romainville	Sorting centre	2006-2007	0.27	0.30	0.57
Romainville/Bobigny	Sorting/methanization centre	2005-2012	3.29	1.24	176.00
Blanc-Mesnil/Aulnay-ss-Bois	Methanization/slurry treatment plant	2006-2012	0.05	0.14	99.20
Saint-Denis	Transfer centre	2007-2011		0.04	16.28
Ivry II	Research into the future of the multi-channel CENTRE	2007		0.37	0.37
Total			**112.03**	**88.98**	**1,052.20**

BUDGET AND ORGANISATION

>Improved income from materials recovery and the resulting financial aid from Éco-Emballages

The income received from Éco-Emballages in the framework of the multiannual agreement amounted to €17.06m in 2007 alone (up 30% on 2006). For their part, the sale of materials from selective collections provided €13.4m, boosted by the growth in tonnages sorted and the negotiation of price contracts.

>Renegotiation of the steam sale price

A steam sale price had been negotiated with the CPCU (Paris Urban Heating Company) for the 2005-2017 period, but the significant rise in energy prices allowed SYCTOM to activate contractual purchase price renegotiation clauses. In 2008 the average increase will be set at €0.60 per tonne produced. This is a first step towards achieving an average increase of €1.70/t in 2010.

>Rising financial costs

Outstanding debt at 31 December 2007 stood at €592.85m, compared with €543.91m at the end of 2006. This outstanding amount resulted chiefly from the Isséane operation, for which SYCTOM received little in subsidies. The average maturity of the debt is 27.15 years, with an average interest rate which remains low (3.64%), despite rising rates. In 2007, therefore, SYCTOM was barely exposed to the rising markets. This is down to the composition of its debt portfolio, which is principally at fixed rate (at an average rate of 3.66%) and the remainder is at variable or structured rates (at an average rate of 3.60%). Financial costs thus rose by €2.6m as a result of increasing outstanding debt since the beginning of 2006. In 2007 capital debt repayments amounted to €20.87m, not including debt management.

>Dynamic and secure debt management

The context of the financial markets, which have been at a record long-term low since 2001, has enabled SYCTOM to take genuine opportunities by building up a debt portfolio which is both very inexpensive (-80 base points on average compared with the market repo rate in 2007) and extremely secure: 88% of the portfolio consists of fixed rates and assimilated products. The aim is to add value to existing contracts if they are well positioned in relation to the market, or on the other hand to shore up a position which may deteriorate. Debt portfolio monitoring takes place all year round. Equally, the aim has also been to diversify structured products, in order not to expose the Group to any market risks. Finally, in 2007 SYCTOM was able to add dynamism to its cash management by investing one-off surpluses from certain weeks, which brought in €784,000.

>End of works at Isséane and construction of the Sevran sorting centre

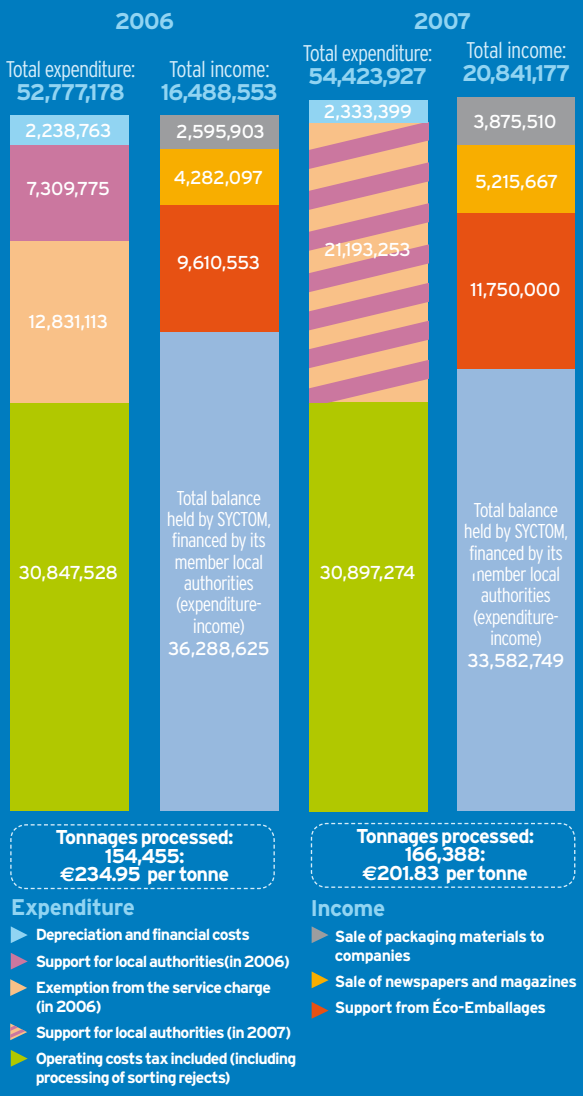
The investment budget was down 16% on 2006, reaching €160.60m. In 2007 again, outlay on facilities focused on Isséane, which accounted for 58% of expenditure, a total of €94.14m. The next largest area of expenditure was the construction of the Paris XV and Sevran sorting centres, accounting for 4% or €6.37m. Effort was made to renovate existing centres, on which €5.27m was spent. Investment costs also included €496,000 of research credits, mainly spent on methanization projects at Romainville and Blanc-Mesnil/Aulnay-sous-Bois. Finally, SYCTOM pursued its policy of supporting the creation of local authority and inter-authority waste collection centres, allocating €163,228 to local authorities in 2007 to finance four facilities.

Processing costs in current euros

(estimates)

	2006	2007
Operating expenses, administrative account (OE)	279,040,023	290,750,383
Total tonnages processed (T)	2,491,498	2,479,243
Gross cost of waste processing (€ per tonne) (= OE/T)	112.00	117.27

Cost of processing selective collections



Expenditure

- Depreciation and financial costs
- Support for local authorities(in 2006)
- Exemption from the service charge (in 2006)
- Support for local authorities (in 2007)
- Operating costs tax included (including processing of sorting rejects)

Income

- Sale of packaging materials to companies
- Sale of newspapers and magazines
- Support from Éco-Emballages

In 2007, SYCTOM paid its members a lump sum of €125.89/t of selective collections. Without this incentive support, the operating cost would have been €74.46/t in 2007 (€107.46/t in 2006). Down significantly on 2006, the selective collections processing cost benefited from the reduced cost of sorting centre operating contracts, the increased support from Éco-Emballages and increased income from sorted materials.

Cost of incineration with energy recovery

Expenditure

- Depreciation and financial costs
- Operational costs tax included (including processing of residues and clinkers and transfer to HWIU)

Income

- Income from recovery of by-products from clinkers tax included
- Support from Éco-Emballages for energy recovery tax included
- Energy income tax included (sale of steam and electricity)

The increased cost of incineration, up in 2007 to €82.52/t compared with €76.02/t in 2006, can be explained by the falling tonnages incinerated, giving rise to a reduction in energy recovery and the associated income.

Furthermore, in 2007 the cost of processing bulky items was €102.32 per tonne (compared with €107.82 in 2006) and the cost of landfilling (including the cost of managing transfer centres, particularly Issy 1) was €101.72 per tonne (€91.87 in 2006).

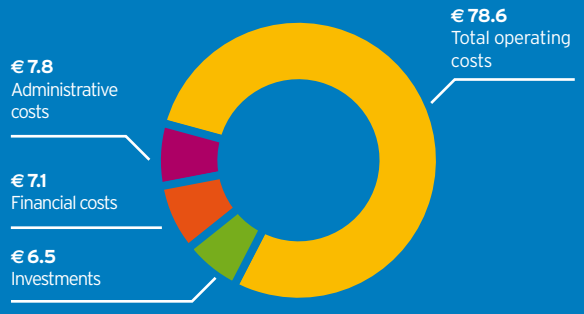
SYCTOM debt

(change in millions of Euros, figures as of 31 December of each year)

Loans taken out to finance SYCTOM projects, such as Isséane and the sorting centres, in addition to the improvement of existing centres.

Use of the service charge

(per €100)



A stable organisation

The Syndicate committee

DID YOU KNOW?

The Call for Tender Commission
Its role, in accordance with the public contracts code, is to verify the validity of candidatures and the competitiveness of the tenders made, before allocating these contracts. Placed under the authority of the Chairman of SYCTOM, it is made up of five members elected by the Committee and met 19 times during 2007.

More than one local authority in two takes part in SYCTOM works (44 out of 85), within the Syndicate plenary body: the Syndicate committee. Its 68 members are divided as follows:

- 24 representatives of the City of Paris;
- 14 SYELOM (Hauts-de-Seine) delegates;
- 14 SITOM93 (Seine-Saint-Denis) delegates;
- 13 delegates representing the Val-de-Marne local authorities;
- 3 delegates representing the Yvelines local authorities.

The Committee elects Vice-Chairmen, defines Syndicate policy, votes on the budget, decides on works to pursue and adjudicates on requests for membership and withdrawal made by local authorities.

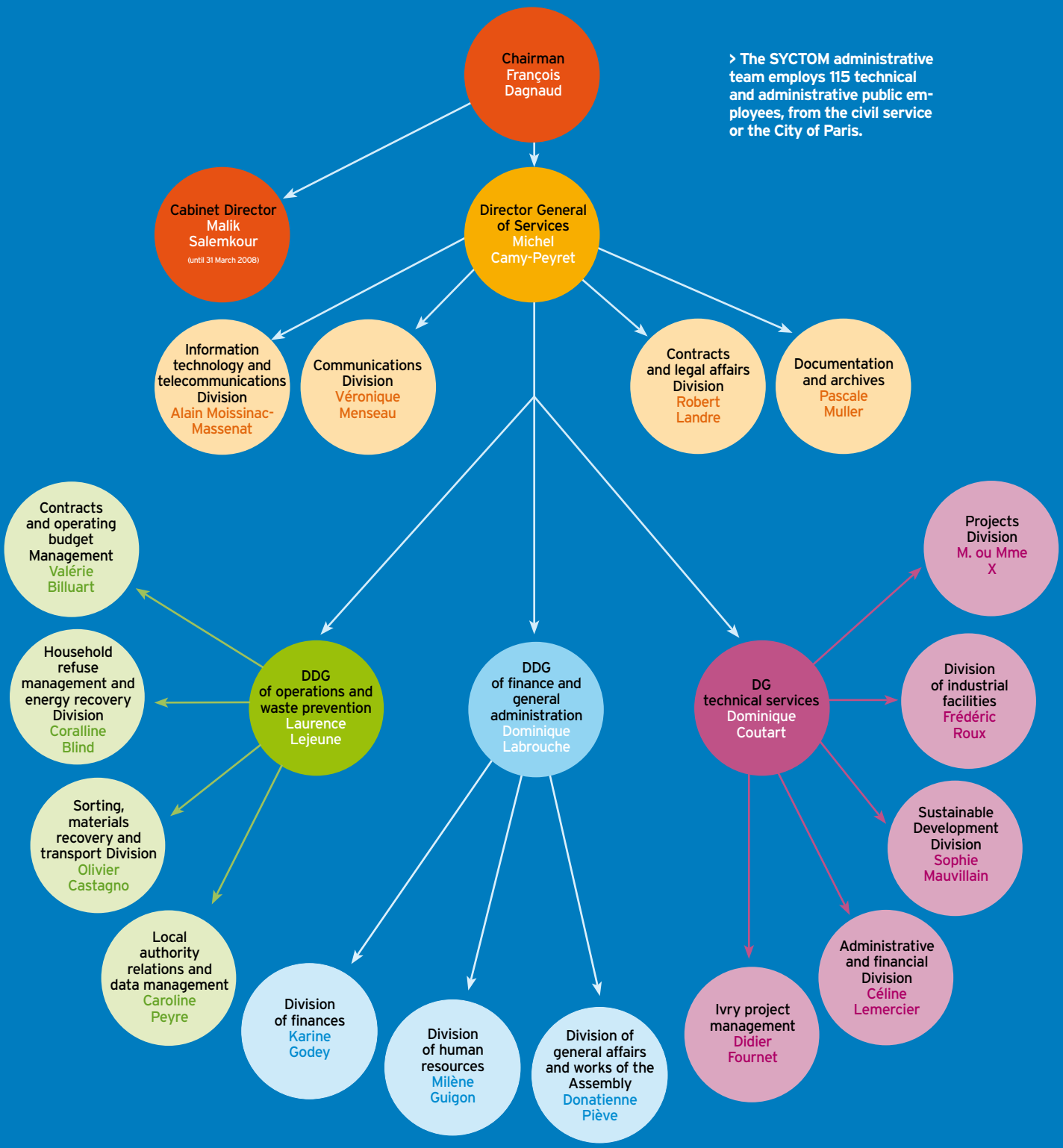
>The Bureau

The Syndicate committee can delegate its powers to the Bureau, composed of 36 members. The Bureau prepares the Committee's rulings.

>The main decisions made by the Committee in 2007

- SYCTOM pursued its policy of supporting the development of a network of community waste collection centres. In April, it decided to extend the financial support mechanism to 2009 and to bear a guaranteed 30% of pre-tax expenditure on civil engineering and equipment. Furthermore, the Syndicate grants a supplement to local authorities which want to acquire land for the construction of a waste collection centre. Assistance rose to 30% of their pre-tax spending (up to €30/m²) on land acquisition.
- Following the discovery of Mesolithic remains (8000BC) on the site of the sorting centre in Paris XV, SYCTOM had to postpone the beginning of works in order for archaeological digs to take place on the site. As project owner, the Syndicate will finance the operation, spending €2m in 2008.
- SYCTOM confirmed its commitment to the fight against greenhouse gas emissions with its river transport expansion projects, its waste management method diversification projects and by signing up to the European IEE II (Intelligent Energy Europe) programme in 2007.
- During its 19 September 2007 session which discussed methanization projects in Seine-Saint-Denis, the Committee unanimously validated the two definitive programmes, building in alternative modes of transport. The multi-channel processing centre in Romainville and the SIAPP and SYCTOM waste and slurry processing centre in Blanc-Mesnil/Aulnay-sous-Bois are scheduled to come on stream in 2012.
- A memorandum of understanding was signed between SYCTOM, the town of Bobigny and the city of Paris, the Independent Port of Paris, SITOM93 and the Seine-Saint-Denis General Council for the construction, in Bobigny, on the boundary of Romainville, of a public freight port on the Ourcq canal which will be managed by SYCTOM in order to expand river transport.
- SYCTOM approved environmental quality charters with five towns and cities which are set to host new facilities: Paris, Romainville, Bobigny, Aulnay-sous-Bois and Le Blanc-Mesnil.
- In order to start shipping away clinkers from its incineration plant in Saint-Ouen, SYCTOM decided to sign an agreement with the Seine-Seint-Denis General Council to redevelop the road network between the centre and the dock, and a second agreement with the Independent Port Authority to move into the dock.

A functional organisation



> The SYCTOM administrative team employs 115 technical and administrative public employees, from the civil service or the City of Paris.

> The Deputy Director-General of operations and waste prevention is responsible for the proper functioning of SYCTOM's centres and supervises operating contracts.

> The Deputy Director-General of finance and general administration is responsible for the Syndicate's organisation and resource management.

> The Director-General of Technical Services is responsible for the construction of new SYCTOM centres and for modernising facilities.

The 68 members of the SYCTOM Committee in 2007

François DAGNAUD
Chairman
(75)

Alain LE GARREC
Paris Councillor
(75)

Josiane BERNARD
Deputy Mayor of Bagnolet (93)

Yves CONTASSOT
Vice-Chairman
Deputy Mayor of Paris (75)

Pierre MANSAT
Deputy Mayor of Paris (75)

Danielle BRICHOT
Deputy Mayor of Stains (93)

Nicole AZZARO
Vice-Chairman
Paris Councillor (75)

Jérôme COUMET
Paris Councillor (75)

Géraldine MARTIANO
Paris Councillor (75)

Jean-Pierre COMTE
Deputy Mayor of Drancy (93)

Jean-Charles BARDON
Paris Councillor (75)

Roxanne DECORTE
Paris Councillor (75)

Sophie MEYNAUD
Vice-Chairman
Paris Councillor (75

Michel DEBAILLY
Drancy Municipal Councillor (93)

Jean-Didier BERTHAULT
Paris Councillor (75)

Laurence DOUVIN
Paris Councillor (75)

Christophe NAJDOVSKI
Paris Councillor (75

Gérard GAUDRON
Vice-Chairman
Mayor of Aulnay-sous-Bois (93)

Geneviève BERTRAND
Paris Councillor (75)

François FLORES
Paris Councillor (75)

Cécile RENSON
Paris Councillor (75)

Bernard LABBÉ
Vice-Chairman
Aulnay-sous-Bois Municipal Councillor (93)

Michel BULTE
Vice-Chairman
Paris Councillor (75)

Pierre GATIGNON
Vice-Chairman
Paris Councillor (75)

Gérard REY
Vice-Chairman
Paris Councillor (75)

Jean-Philippe MALAYEUDE
Deputy Mayor of Neuilly-Plaisance (93)

Jeanne CHABAUD
Paris Councillor (75)

Brigitte KUSTER
Paris Councillor (75)

Pierre SCHAPIRA
Deputy Mayor of Paris (75)

Claude PERNES
Vice-Chairman
Mayor of Rosny-sous-Bois (93)

Lyne COHEN-SOLAL
Vice-Chairman
Deputy Mayor of Paris (75)

Élisabeth LARRIEU
Paris Councillor (75)

Daniel BERNARD
Deputy Mayor of Bagnolet (93)

Michel PRIN
Deputy Mayor of Sevran (93)

- Representatives of the City of Paris
- Delegates of SITOM93 (Seine Saint Denis)
- Delegates of SYELOM (Hauts de Seine)
- Delegates representing the Val-de-Marne local authorities
- Delegates representing the Yvelines local authorities

* Members of the Bureau in 2007

Henri REIN
Neuilly-sur-Marne
Municipal Councillor
(93)

Sylvain ROS
Aubervilliers
Municipal Councillor
(93)

Alain ROUAULT
Vice-Chairman
Chairman of SITOM93
Deputy Mayor of
Saint-Ouen (93)

Gérard SAVAT
Vice-Chairman
Deputy Mayor of
Pantin (93)

Jean-Pierre AUFFRET
Vice-Chairman
Deputy Mayor of
Clichy-la-Garenne (92)

Christiane BAUDAT
Deputy Mayor of
Suresnes (92)

Christine BOURCET
Deputy Mayor of
Nanterre (92)

Michel de
LARDEMELLE
Deputy Mayor of
Levallois-Perret (92)

Éric FLAMAND
Deputy Mayor of
Vaucresson (92)

Jean-Paul GAUDIN
Ville-d'Avray
Municipal Councillor
(92)

Jacques GAUTIER
Vice-Chairman
Chairman of SYELOM
Hauts de Seine
Senator
Mayor of Garches
(92)

Alain JULIARD
Boulogne-Billancourt
Municipal Councillor
(92)

Dominique LAFON
Deputy Mayor of
Fontenay-aux-Roses
(92)

Hervé MARSEILLE
Mayor of Meudon (92)

Olivier MERIOT
Vice-Chairman
Deputy Mayor of
Gennevilliers (92)

Jean-Loup METTON
Mayor of Montrouge
(92)

André SANTINI
Vice-Chairman
Secretary of State
Mayor of Issy-les-
Moulineaux (92)

Hervé SOULIÉ
Deputy Mayor of
Saint-Cloud (92)

Alain AUDOUBERT
Mayor of Vitry-sur-
Seine (94)

Jean-Marie
BRETILLON
Mayor of Charenton-
le-Pont (94)

Christian CAMBON
Mayor of Saint-
Maurice (94)

Séverine de
COMPREIGNAC
Deputy Mayor of
Joinville-le-Pont (94)

Pierre GOSNAT
Vice-Chairman
Deputy Mayor of Ivry-
sur-Seine (94)

Roger JOUBERT
Vice-Chairman
Maisons-Alfort
Municipal Councillor
(94)

Jean-Yves
LE BOUILLONNEC
Deputy Mayor of
Cachan (94)

Jérôme LE GUILLOU
Deputy Mayor of
Kremlin-Bicêtre (94)

Franck PERILLAT
Deputy Mayor of
Villejuif (94)

Dominique PICARD
Saint-Mandé
Municipal Councillor
(94)

Michel PRA
Gentilly Municipal
Councillor (94)

Jean-Michel SEUX
Deputy Mayor of
Vincennes (94)

Françoise BAUD
Deputy Mayor of
Valenton (94)

Gérard MEZZADRI
Delegate of the Grand
Parc Federation of
Local Authorities (78)

Guy RECHAGNIEUX
Deputy Mayor of
Chesnay (78)

Raymond ROUX
Vice-Chairman
Deputy Mayor of
Vélizy-Villacoublay
(78)

Key Figures 2007 (1)

(The figures within brackets correspond to the 2006 data)

Total tonnage of household waste in SYCTOM's territory, 2,652,210t
(2,653,916t)

Waste treated by SYCTOM
2,479,243 t
(2,491,498 t)

SYCTOM's centres:

- A multi-sector centre at **Issy-les-Moulineaux**, Isséane, comprised of a selective collection sorting unit, a bulky object sorting unit and an incineration centre with energy recovery;
- A multi-sector centre at **Ivry-Paris XIII** comprised of a selective collection sorting centre and an incineration centre with energy recovery;
- A selective collection sorting centre at **Nanterre**;
- A multi-sector centre at **Romainville** including a selective collection sorting unit, a bulk object sorting unit and a residual household waste transfer centre;
- A bulk object sorting centre at **Saint-Denis**;
- An incineration centre with energy recovery at **Saint-Ouen.**

Furthermore, complementary treatment capacities are mobilised in around twenty independent centres.

Human resources
As at 31/12/2007 :

- SYCTOM : 115 agents
- Private SYCTOM waste treatment centre operators: 753 agents, including
  - TIRU : 328
  - Veolia Propreté : 279
  - SITA : 146

Sorting and recycling of selective collections, 166,388t
(154,455t)

Sorting of bulk items
202,559t
(210,650t)

SYCTOM waste accumulation sites
38,067t
(39,348t)

Composting
4,098t
(7,154t)

HWIUs, direct inputs,
1,308,991t
Including declassifications,
3,587t

Transfer to Romainville, direct inputs,
363,089t
Including declassifications,
8,651t

Transfer to Issy, direct inputs,
324,273t

CET 2 spillovers,
71,778t

Glass
106,128t
(96,283t)

Not transiting via SYCTOM,
103,226t
(93,408t)
Transiting via SYCTOM,
2,902t
(2,875t)

Waste from non-dumping municipalities,
66,839t
(66,135t)

Do not transit via SYCTOM

(1) These figures were finalised on April 8th 2008.
Given the timeframes involved, some values have had to be published without being formally validated by all SYCTOM partners.

Total material recovery

- Selective collections + bulk items + waste accumulation sites+ glass 319,441t
- Clinkers + ferrous metal + non-ferrous metal 313,744t

Total material recovery 633,185t
i.e. 24% of waste

Total organic recovery

2,251t

Total energy recovery

Household waste
+ declassifications
+ non-recyclable refuse

1,426,694t

i.e. 44% of waste (2)

Total SYCTOM burial in CET 2

- Household waste + declassifications

662,181t

- Household waste + declassifications + non-recyclable refuse

830,237t

i.e. 32% of waste

(2) Ferrous and non-ferrous clinkers are materially recovered.
In order to avoid a double count, this percentage was calculated by subtracting these materials from the total energy recovery tonnages.

> A temporary situation

The high quantity of waste landfilled in 2007 is linked, as in 2006, to the end of incineration activity at Issy -les-Moulineaux. Until Isséane came on stream, in December 2007, this centre functioned as a temporary waste transfer centre. The waste received was redirected to other centres in the Ile-de-France region and to a lesser extent in the Oise, where it was mainly landfilled but also incinerated.

Annual report on the price and quality of the public waste disposal service

(in application of decree no.2000-404 of 11 May 2000). Technical and financial indicators for 2007.

Processing centres mobilized by SYCTOM

>SYCTOM centres and tonnages processed in2007

- 3 incinerators with energy recovery
  Ivry-Paris XIII (capacity: 730,000 t, 2007 quantities: 669,989 t);
  Saint-Ouen (capacity: 630,000 t, 2007 quantities: 607,819 t);
  Isséane (capacity: 460,000 t, 2007 quantities: 12,800 t);
- 4 selective collection sorting centres
  Nanterre (capacity: 40,000 t, 2007 quantities: 34,399 t);
  Ivry-Paris XIII (capacity: 36,300 t, 2007 quantities: 36,271 t);
  Romainville (capacity: 45,000 t, 2007 quantities: 37,705 t);
  Isséane (capacity: 20,000 t, 2007 quantities: 898 t).
- 3 bulky item sorting centres
  Saint-Denis (capacity: 60,000 t, 2007 quantities: 30,422 t);
  Romainville (capacity: 75,000 t, 2007 quantities: 83,476 t);
  Isséane (capacity: 35,000 t, 2007 quantities: 192 t).
- 2 transfer centres
  RomainvilleRomainville (capacity: 350,000 t, 2007 quantities: 363,089 t);
  Issy-les-Moulineaux (capacity: 320,000 t, 2007 quantities: 328,370 t).
- 3 waste collection centres
  Ivry-Paris XIII (2007 quantities: 3,886 t);
  Saint-Denis (2007 quantities: 5,783 t);
  Romainville (2007 quantities: 28,398 t).

>Private centres used by SYCTOM and tonnages processed in 2007

- Incinerators with energy recovery **Massy** (Curma) 4,531 t; **Rungis** (Généris) 3,472 t; **Argenteuil** (Novergie) 49,857 t; **Saint-Thibault-des-Vignes** (Novergie) 29,735 t; **Monthyon** (Généris) 1,981 t; **Saint-Ouen-l'Aumône** (Généris) 4,373 t; **Carrières-sur-Seine** (Novergie) 17,839 t ; **Créteil** (Novergie) 12,707 t; **other centres** 3,215 t.
- Sorting centres
  Arcueil (SITA) 24,026 t of BI; **Ivry** (Revival) 12,205 t d'OE ; **Ivry - Blanc-Mesnil** (Paprec) 24,133 t of SC; **Gennevilliers** (SITA) 28,348 tof BI and 12,932 t of SC **Buc** (Nicollin) 11,084 t of BI and 7,048 t of SC; **Chelles** (Généris) 7,401 t of SC; **Rungis** (SIEVD) 5,601 t of SC; **Ivry** (CFF) 12,806 t of BI;
- Composting unit
  Triel-sur-Seine (Généris) 4,098 t.
- Landfill centres
  CET 1 Villeparisis (SITA) 30,134t of REFIOM;
  CET 2 Claye-Souilly (REP) 570,188 t;
  CET 2 Isles-les-Meldeuses (Sablières Capoulade) 54,303 t;
  CET 2 Bouqueval (REP) 58,088 t;
  CET 2 Crépy-en-Valois - Liancourt-Saint-Pierre (SITA) 51,888 t;
  CET 2 Soignolles (SITA) 24,149 t;
  CET 3 Claye-Souilly (REP) 24,473 t;
  Other class 2 landfill 69,784 t.

Overall annual report

Number of local authorities in the SYCTOM area	Number of residents in the SYCTOM area	Gross tonnages of waste			Selective collections			Service charges	
	1999 population survey and supplementary surveys to 2007	Household refuse, sweepings, green waste	Bulky items	NHIW	Newspapers and magazines, multi-materials, paper and cardboard	Glass	Waste collection centre	Per capita	Per tonne
85 local authorities	**5,582,837 in 85 local authorities**	**2,072,229 t: 371.2 kg/ resident/year**	**202,559 t: 36.3 kg/ resident/year**	**792 t**	**166,388 t: 29.8 kg/ resident/year**	**2,902 t**	**38,067 t**	**€ 6.56**	**€ 84.97 €**

Dépenses et recettes

Terms of operation of the disposal service awarded to SYCTOM in the Paris agglomeration	Public contracts
Total annual overall expenditure on waste processing by SYCTOM (total real expenditure in the operating section of the 2007 Administrative account)	€ 273,239,993
Terms and conditions for financing the general processing service	Contributions from local authorities, Éco-Emballages support for selective collections, product sales
Terms and conditions for setting the special service charge for the disposal of assimilated products	Not applicable
Annual total of main contracted services in €m incl. tax	€ 227.3m incl. tax
Overall cost, per tonne of waste collected, of the bulky item collection service (processing or storage) including transport and landfill of sorting rejects	€ 102.32 per tonne
Overall cost of processing selective collections	€ 201.83 per tonne
Overall cost of incineration with energy recovery	€ 82.52 per tonne
Cost of landfill	€ 101.72 per tonne
Income from access rights to processing and storage centres at which the local authority is the project owner for assimilated waste	Not applicable
Reversement au titre de la collecte sélective	Multi-materials without glass: €125.89/t; newspapers and magazines: €125.89/t; office paper: €125.89/t; single-material cardboard: €125.89/t; multi-materials with glass: €110.65/t SC.
Itemised amount of aid received from certified bodies: support per sorted tonne	€12.986 m

Recovery

Recovery from incineration	Multi-material recovery	Bulky item recovery	Recovery in waste collection centres	Recovery in composting unit	Class 2 landfill
Electricity: 277,374 MWh, Steam: 2,180,687 MWh, Clinkers: 278,579 t, Ferrous: 33,126 t, Non-ferrous: 2,039 t	118,634 t of plastic, paper-cardboard, newspapers & magazines, steel and aluminium, small electrical appliances	75,174 t of wood, scrap metal, large cardboard boxes	20,071 t	2,251 t	827,237 t

› Materials recovery from sorting (in € tax included):
Newspapers/magazines: €5.22m - Plastic: €1.50m - Cardboard (recyclable domestic packaging): €1.15m - Industrial paper: €0.04m - Steel: €0.86m - Aluminium: €1.41m - Packaging: €0.13m - Glass: €0.007m - Non-ferrous: €0.003m - E-waste: €0.006m

› Materials recovery from incineration (in € incl. tax):
Scrap metal: €1.28m - Clinker aluminium: €0.81m - Large scrap metal and other: €0.15m

TOTAL income from materials recovery: €12.9m

This document will be put to a vote by the Committee of SYCTOM in the Paris agglomeration at its meeting on 11 June 2008.

SYCTOM partners

A number of public and private partners work alongside SYCTOM and help it to fulfil its public service mission: State services, public bodies, local authorities and companies.

› The European Union is implementing a common environmental policy. It acts, for example, in the field of waste management. Its directives are transposed into French law by the State.

› The Ministry for the Environment, Energy, Sustainable Development and Planning (MEEDDAT) sets the major objectives for waste management and the standards to be complied with in line with European regulations. The Ministry also sets Ademe's budget and certifies bodies given responsibility for managing the specific recycling channels (packaging, batteries, e-waste, and so on).

› Ademe (Agency for the Environment and Energy Management) is a public agency under the joint authority of the Ministries responsible for the Environment and Sustainable Development, and for Industry and Research. It helps local authorities to make improvements in the area of sustainable development, especially in waste management, and provides financial backing for their projects.

› The Prefects grant the operating licenses to waste processing centres. They are also responsible for setting up Local Commissions for Information and Surveillance (CLIS), which they chair and of which they determine the make-up, in order to monitor the activities of the energy recovery plants in their départements and provide information to the public.

›The Ile-de France Regional Authority is an important SYCTOM partner. Since 2005, and the law on local freedoms and responsibilities, it has been responsible for drawing up a regional waste disposal programme. Following a project jointly launched in 2006, the implementation of PREDMA is scheduled for 2009. The Regional Authority also provides investment income to the Syndicate in the framework of the Terres Vives contract, in which Ademe is also involved.

› The General Councils draw up or help to draw up, with the Prefects, the Departmental plans for household waste disposal, and are responsible for monitoring them until the superseding Regional plan is implemented.

› SYELOM and SITOM93, the two SYCTOM member primary syndicates, carry out the Syndicate's actions in the Hauts-de-Seine and Seine-Saint-Denis departments and undertake community initiatives. They also provide information, coordination and help in decision-making to member local authorities and help to monitor selective or specific collections.

› Éco-Emballages, a State-certified private company, supports the establishment and development of the selective collection, sorting, recycling and recovery of energy from domestic packaging. It receives a financial contribution from the companies which manufacture and market packaged products for domestic consumption and redistributes the majority of it to local authorities. In 2007, SYCTOM received €15.7m from Éco-Emballages.

› OCAD3E (Certified coordinating body for E-waste) is a subsidiary common to the four eco-consortia responsible, since November 2006, for the technological and economic administration of the E-waste channel. This body is the interface between the local authorities and the eco-consortia such as Recylum (lamps only), Eco-systèmes, Ecologic and ERP.

› ÉcoFolio is an eco-consortium, responsible since 2007 for managing the eco-contributions from the publishers of free printed leaflets in order to pay for the recycling of their products. It subsidises local authorities for the collection and disposal of the flows generated, for example by the distribution of unsolicited mail.

› CPCU (Paris Urban Heating Company) and EDF buy the steam and electricity produced in SYCTOM's three incinerators. In 2007, the Syndicate sold 2,180,687 MWh of steam and 129,611 MWh of electricity, for a total sum of €32.2m.

› All SYCTOM centres are operated by private firms, selected after calls for tender. TIRU operates the energy recovery plants. Généris (a subsidiary of Veolia Propreté) operates the Romainville, Saint-Denis and Nanterre waste sorting centres. SITA operates the Ivry-Paris XIII waste sorting centre. TIRU and SITA formed the TSI company to operate Isséane.

› In order to add to its processing capacity, SYCTOM uses services provided by external centres operated by contractors: SITA operates the selective collection sorting centre in Gennevilliers, the bulky items unit in Arcueil and the class 1 landfill centre in Villeparisis. Généris operates the waste sorting centre in Chelles and the incinerators in Monthyon and Saint-Ouen-l'Aumône. Nicollin operates the Buc sorting centre, Valor Industries the centre at Blanc-Mesnil, SIEVD the Rungis centre and Revival the centre at Ivry. Novergie operates the energy recovery centres in Argenteuil, Saint-Thibault-des-Vignes, Carrières-sur-Seine and Créteil. Curma operates the Massy plant.

› Finally, the clinkers from SYCTOM energy recovery plants are processed by MRF, YPREMA, REP and TIRFER (with effect from 01/12/2007).

Glossary

› **Voluntary drop-off:** method of selective collection whereby sorted materials are placed for recycling in specific containers located in public places (this often applies to the collection of glass).

› **Biogas:** gas produced by the biological breakdown of organic matter in the absence of oxygen. This fermentation process occurs in nature and in landfills containing organic waste, and also in methanization processes. Biogas is mainly composed of methane and carbon dioxide.

› **Biomass:** this covers all organic waste used to produce heat or electricity, including the organic waste contained in refuse. This source of energy has no impact on global warming insofar as the CO^2 released when it is burned is considered to have already been absorbed by plants during their growth.

› **Carbon balance:** this is a method for calculating greenhouse gas (GHG) emissions developed by Ademe using data on direct and indirect activities and on all types of human organisations.

›**Fly ash:** fine ash produced during the incineration of waste and contained in gases leaving boilers. It is captured along with particles at the first level of incineration-fume purification using electrostatic filters.

› **CET (landfill centre):** rubbish dump for the burial of waste in compliance with environmental criteria. Storage centres are categorised into three categories, according to the nature of the waste which is placed in them: class 1 (dangerous waste), class 2 (non-dangerous waste), and class 3 (inert waste).

› **Cogeneration:** the production of steam and electricity using the heat recovered during the combustion of waste.

› **Selective collection:** the collection of waste pre-sorted by residents for recycling (packaging, newspapers and magazines, glass).

› **Electrical and Electronic waste (E-waste):** waste from equipment which functions using electrical currents or electromagnetic fields, in other words all equipment which uses an electrical socket, a battery or a storage battery (rechargeable). The Ministerial decree of July 20th 2005 makes selective collection and processing of electrical and electronic waste compulsory.

› **Non-hazardous Industrial Waste (NHIW):** waste from industry which can be processed in the same facilities as household refuse.

› **Residual waste:** non-recoverable waste, residues from waste processing "which can no longer be processed in current technical and economic conditions, in particular by extracting the recoverable elements or limiting their polluting or dangerous character" (law of 13 July 1992).

› **Dioxins:** generic name given to a family of toxic compounds which are part of the Halogenated Polycyclic aromatic Hydrocarbons (HPAH) family. They are made up of atoms of carbon, hydrogen, oxygen and halogens (chloride, bromine, iodine, fluoride, etc.)

› **ELA:** Packaging for drinks, such as brick packs.

› **EMR:** thin, light cardboard packaging for food (cake packets, outer packaging for yoghurts, etc).

› **Bulky or gigantic items:** household waste too large to be put in a household bin (electrical appliances, furniture, mattresses, etc).

› **Fossil energy:** energy produced from oil, gas and coal; non-renewable residues from the fossilisation of living organisms in the earth's subsoil in geological time. The combustion of these sources of energy generates greenhouse gases.

› **Greenhouse Gases (GHGs):** these contribute to the creation of a greenhouse effect which retains heat around the earth. An over-concentration of GHGs interferes with the climate. They can be natural (carbon dioxide, methane and ozone) or produced by mankind (like carbon dioxide from burning fuels).

› **Incineration:** method of thermally processing waste by combustion which generates three types of residues: clinkers, ash and smoke-scrubbing residues.

› **Classified installations:** installations which can be the source of danger or pollutants and the operation of which is regulated. We distinguish between those sites which must be declared to the Préfecture, and those subject to the Prefect's authorisation after a public enquiry, such as waste processing facilities.

› **Leachates:** water which, after percolating through waste stored in landfill, carries bacteria and chemicals. They are polluting and must be treated before they can be returned to the natural environment.

› **Clinkers or slag:** non-combustible residues produced at the outputs from incineration furnaces. After ageing, they can be used in road works.

› **Heavy metals:** metals which, if they accumulate in the environment, pose dangers for human health, such as lead, cadmium and mercury.

› **Methanization:** a treatment leading to the production of biogas by the anaerobic breakdown of organic waste. It is a source of energy recoverable as a fuel.

› **PEHD (High-Density Polyethylene):** an opaque plastic material used in the manufacturing of packaging, such as bottles for household products, and which can be recycled to make pipes and hoses, shoe stiffeners, canisters, etc.

› **PET (Polyethylene Terephtalate):** plastic material used particularly in the manufacturing of transparent bottles (for water or soft drinks). It can be recycled to make new bottles, containers, fibres, and filling for quilts, pillows, anoraks and soft toys.

› **REFIOM (Residues from smoke-scrubbing after household waste incineration):** residues from household waste incineration plants made up of particle removal residues and residues from the smoke-scrubbing process. They are treated to be stabilised before being placed in Class 1 landfill centres.

› **Sorting rejects (undesirables):** in a waste sorting centre, excessively dirty packaging or materials which cannot be recovered for recycling. They are extracted by the sorters of materials sent along recycling channels.

› **TOE (tonne of oil equivalent):** a measurement with which all types of energy can be compared to oil. For example: 1,200 litres of fuel oil = 1 TOE.

› **HWIU:** household waste incineration unit.

› **Recovery:** procedure which involves giving value back to waste by reusing the product (deposit), recycling, composting, regeneration (production of a new raw material) or in the form of energy.

› **Energy recovery:** procedure consisting of using the calories contained in waste, burning them to recover the energy in the form of heat, steam or electricity.

› **Materials recovery:** the recovery of waste by using its component materials, like the regeneration of used oil, the recycling of newspapers/magazines and packaging materials.

› **Organic matter recovery:** the recovery of organic waste, for example by composting.