



syctom

l'agence
métropolitaine
des déchets
ménagers

20
activity



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reduction

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GLOSSARY

“TOWARDS A MORE SUSTAINABLE WAY OF THROWING AWAY.”



François DAGNAUD, Chairman of Syctom, the metropolitan agency for household waste

Syctom is taking unprecedented initiatives as it puts prevention at the heart of its work. Our prevention plan 2010-2014 has expanded efforts undertaken since 2004. In 2013, our investment in promoting the reduction of waste will amount to €10.5 million, including our contribution to the ADEME budget via the TGAP tax. The trend of a sustainable and consistent decrease in the production of household waste in Syctom's sphere bears testament to our priority, even with social and economic factors influencing the level of consumption.

Our actions are part of a new metropolitan governance undertaken with our member local authorities. An improvement programme for collecting and processing household waste (the waste PACT) was put in place to simplify the organisations, bring expertise together, harmonise practices, and share operations and resources. The aim of these steps is to rationalise the public service of household waste management on a metropolitan level and achieve the prevention and recycling objectives established by the public authorities. In the context of this programme, agreements have been signed with SIGIDURS (Sarcelles) and SIEVD (Rungis) that reinforce solidarity across the metropolitan area. Also contributing to regional balancing between the capital and its suburbs was the opening of the Paris XV sorting centre and the planned Paris XVII sorting centre.

With the aim of taking a more environmental approach in the context of the European hierarchy for treatment methods, Syctom has fully committed to organic household waste recovery. As well as its methanisation centre projects, Syctom is supporting the development of the domestic composting of organic waste in its sphere, in particular through the "50,000" composters initiative.

However, regulations are in constant evolution and not always immediately clear, and there are multiple constraints. These include penalties for the least-green treatment methods, linked to European and national objectives for the reduction of landfill and incineration, putting a heavy burden on our investment choices, whilst other solutions are not encouraged by public authorities. It is time to step away from the "neither-this-nor-that" attitude that ends up discounting the entirety of the waste treatment methods.

In this respect I would like to thank Syctom officials for the solidarity they have shown throughout the difficult moments, and to our teams for their conscientious involvement in our projects.

5.2 million
inhabitants in Syctom's
sphere involved in a local
prevention plan

+6,454 tonnes
of materials recovered, including
glass (SC, BO, clinkers)

+€7.1 million
of electricity and steam sales

+7 % in tonnes
recovered in energy

70 %
Recycling rate of selective collection

+10 %
of financial support for selective
collections

407 kg/year/person
of household waste
processed by Syctom

5,100
composters delivered in 2012
to member local authorities

€69.8 million
of investment expenditure

7,600
visitors welcomed to
Syctom installations

+11 %
aid from eco-organisations

€29.5 million
support for selective collection
granted to member municipalities

+33 %
Syctom's contribution to the ADEME
budget *through* the TGAP tax

-66,606 tonnes
of waste received

-38 %
of waste buried in ISDND

Business indicators

2.34 million tonnes of waste processed by Syctom
or **407 kg/year/person** of household waste
- **6.2% of waste processed** by Syctom since 2008*
+ **2.6% more inhabitants** in Syctom's sphere since 2008

TONNAGE PROCESSED BY COLLECTION CHANNEL

Selective collection	172,730 t	7%
Bulky objects	167,859 t	7%
Syctom's waste reception centres	17,744 t	1%
Residual household waste	1,981,501 t	85%

TREATMENT CHANNELS (ENTRANCES)

Sorting and recycling

15 % **358,333 t**

Incineration**

77 % **1,802,159 t**

Landfill:

8 % **180,144 t**

MATERIALS

Materials recovery

593,713 t

including
Paper, cardboard, plastics,
metals, recyclable wood, etc. **214,371 t**
Recoverable incineration
residue **379,342 t**

Energy recovery

Steam sold **2,679,026 MWh**
Electricity sold **176,314 MWh**

Financial indicators

BUDGET

Total expenditure	€412,366,446
Management, operation, treatment	€342,567,266
Investment	€69,799,180

COST OF PROCESSING PER TONNE

Sorting of selective collections	€234,52
Bulky objects	€104.10
Incineration with energy recovery	€81.10
Landfill (including transport)	€98.00

*Reference year for the Grenelle law - The waste concerned is HW, SC and glass.
** Excluding stock from the tank of the Romainville transfer centre of 2,088 t.

HIGHLIGHTS

February

- **Involvement** by Sycotm in the public meeting on 1 February organised by the Est Ensemble agglomeration community. The objective of the meeting was to relaunch the consultation on the Romainville/Bobigny sorting-methanisation project and the decision for a 6-month suspension of works.

March

- **Opening** of an exchange and information space at 47 Rue de Paris in Bobigny about the sorting-methanisation project in Romainville/Bobigny.



- **Start** of the experiment on the sorting of all plastic packaging in the 10 municipalities in the Sevrans sorting centre's catchment and in the 3rd arrondissement in Paris.
- **Awarding** of financial support to the creation of the Rejoué resource centre (14th arrondissement).
- **First** meeting on 15 March of the committee for monitoring the environmental quality guidelines at the Ivry-Paris XIII centre.
- **First** wave of deliveries to member local communities of 2,000 domestic organic waste composters.

April

- **Submission** for public consultation of the specifications relating to the operating authorisation application audit for the sorting-methanisation project in Romainville/Bobigny.
- **Legal validation** by Montreuil administrative tribunal of the building permit for the Romainville/Bobigny sorting-methanisation project.
- **Signing** of a partnership agreement with Emmaüs Liberté Val-de-Marne for the recovery of used objects at the Ivry-Paris XIII waste reception centre.
- **First** meeting on 12 April with the watchmen for the Ivry-Paris XIII centre.

- **464** visitors to the Paris XV sorting centre for the open day on 7 April, in addition to the 1,810 people welcomed throughout the year on group visits.

May

- **Formation** of a steering committee under the aegis of the Est Ensemble agglomeration community and the appointment of Jean-Pierre Tiffon as guarantor of the suspension of works. The committee will monitor the audit of the planned sorting-methanisation centre in Romainville/Bobigny.
- **Selection** of "high-potential municipalities" projects presented by Gennevilliers and Paris, and the Bourget airport (CAAB) and Mont Valérien (CAMV) agglomeration communities. The selected projects received subsidies to support actions promoting the development of selective collection (€500,000 in total).
- **Opening** of the Sycotm-supported "Food packaging - innovation is in the box!" exhibition at the Paris Musée des Arts et Métiers.
- **365** visitors were welcomed to the Nanterre sorting centre for its open day on 12 May, in addition to the 1,037 people who visited as part of groups throughout the year.

June

- **Starting** of a blog dedicated to the planned sorting-methanisation centre in Romainville/Bobigny.
- **Decision** by the syndicate committee to support the municipality of Coubron (4,750 inhabitants) in the implementation of its Local Prevention Programme, separately of ADEME-planned systems.
- **Prize giving** at the Musée National des Arts et Métiers on 21 June for the 5 winners of the first Zero Waste Design student competition.
- **224** visitors welcomed to the Ivry-Paris XIII multi-channel waste treatment centre on its open day on 23 June, in addition to 1,127 welcomed on group visits throughout the year.

July

- **Distribution** of new "no-waste cooking" and "composting" kits to member local authorities.
- **Participation** by Sycotm in the 12th French National Forum on the prevention and management of regional waste held on 3 and 4 July.
- **Participation** in the public consultation meeting on 3 July set up by the mayor of Blanc-Mesnil concerning the new Blanc-Mesnil/Aulnay-sous-Bois silt and organic waste energy recovery project, developed in partnership with the Wastewater Authority for the Paris Area (SIAAP).

September

- **Completion** of the modernisation works on the Nanterre sorting centre and the start of the small metal packaging sorting experiment.
- **Proposal** for the creation of a parliamentary group on waste by Sycotm's chairman.
- **Declaration** from Sycotm on the planned Regional Climate, Air and Energy Plan (SCRAE).

October

- **Second** wave of deliveries to member local authorities of 3,100 domestic organic waste composters.
- **Public presentation** on 18 October about the conclusions from the audit reports released from July onwards by INERIS and EREP to verify the absence of nuisances and the safety of the future sorting-methanisation installation at Romainville/Bobigny, and to present an environmental overview of the project.
- **284** visitors welcomed to the Saint-Ouen waste incineration with energy recovery centre for the open day on 13 October.

November

- **Third** series of hearings, following on from those held in June and October, of 5 candidate groups for the design, construction and operation of the future Blanc-Mesnil/Aulnay-sous-Bois methanisation and transfer centre as part of the competitive dialogue procedure.
- **130** visitors welcomed to the Sevrans sorting centre for its open day on 10 November, in addition to the 650 people shown around as part of group visits during the year.
- **Participation** in European waste reduction week from 17 to 25 November, with support given to events organised by member local authorities and giant prevention messages visible from the ring road displayed on the Paris XV centre.
- **622** visitors welcomed to the Isséane multi-channel centre open day in Issy-les-Moulineaux on 24 November, in addition to the 904 people shown the site on group visits during the year.



Visitors to Sycotm Open Days

December

- **Approval** from the Syndicate committee for the agreements to be signed with the new eco-organisations Éco-DDS (chemical products EPR) and Éco-Mobilier (furniture EPR).
- **Allocation** of financial support for the creation of the Cycl-officine resources and recycling centre in Ivry-sur-Seine and La petite Rockette in the 11th arrondissement.
- **Renewal** of the objectives agreements with SYELOM and SITOM93.
- **Decision** by the Sycotm Bureau to reorientate the Romainville/Bobigny sorting-methanisation centre project to take into account the Est Ensemble agglomeration community's 10 requests and the conclusions of the audit.
- **Together** with the big Paris syndicates, Sycotm plays a role in metropolitan governance.
- **Second** series of hearings, following on from those in March, of 2 candidate groups for the design, construction and operation of the future Ivry-Paris XIII energy and organic waste recovery centre as part of the competitive dialogue procedure.

Speaking with one voice

In 2012, Sycotm resolved to follow an active consultation process with its member local authorities so that actions relating to the treatment of waste are coherent with those concerning their collection. The results of the of this joint endeavour include the agreements with eco-organisations, the creation of tools to raise public awareness, the development of simplified indicators for selective collection and experimentation with extending the scope of plastic collection.



SYCTOM IN BRIEF

TOWARDS A SUSTAINABLE CITY

12
processing
units

119
public
agents

84
municipalities

68
officials

13
EPCI with
collection
capabilities

762
employees
of operating
companies

5
départements
in the Paris
region

5.7
million
inhabitants

Syctom, the metropolitan agency for household waste, carries out a public service mission in urban ecology. It processes and recovers household waste from half of all inhabitants in the Paris region, or almost 10% of the national population. Through its commitments, its mobilisation and carrying out its activity, Syctom helps to promote sustainable development and reach the targets set by national and regional policies in the area of waste management, the first step of which is prevention. Driven by a territorial solidarity approach, it brings a global view to the challenges of metropolitan planning in the Paris region. Favouring cooperation, it is in touch with the needs and expectations of society when it comes to building a sustainable and unified region.



A PUBLIC PLAYER SERVING THE PARIS REGION

Collectively by local officials

Syctom, the metropolitan agency for household waste, is a **public administrative establishment**. Set up in 1984, it **brings together 84 municipalities** in France's most densely populated district: it works for 5.7 million people, or half the population of the Paris region, in 5 départements: Paris, Hauts-de-Seine, Seine-Saint-Denis, Val-de-Marne and Yvelines. Local authorities are members of Syctom either directly, via inter-municipal groupings, or by the intermediary of département syndicates (SITOM93 and SYELOM) with which it works in partnership.

Syctom is run by a **syndicate committee**. **Made up of 68 local officials** representing the 84 local authorities, it defines Syctom's policy, votes on its budget, decides on investments to be made and the management methods used. It gives its opinion on requests for members and departures of local authorities. It elects the 36 members of the Bureau, which prepares its deliberations. The tender commission is made up of five members elected by the syndicate committee and placed under the authority of the chairman of Syctom. In accordance with the code for government contracts, it ensures the validity of applications and the competitiveness of offers before awarding contracts. In 2012 it met 16 times.



Syndicate committee meeting

A public service in urban ecology

Syctom carries out a public service mission as defined by the French general code of local authorities (Code général des collectivités territoriales) and the Environment code (Code de l'environnement): **the processing of waste produced by households in its sphere**. Its member municipalities have delegated it this mission^[1], but have retained the responsibility to carry out collections.

Syctom processes household and associated waste: paper and packaging from selective collections (with the exception of glass packaging^[2]), residual household waste, bulky objects and waste deposited in waste reception centre by households, waste from tradespeople, shopkeepers and service providers which is collected together with that of households.

In an effort to assume its full responsibility, **Syctom has its own industrial facilities** which it maintains, modernises and develops in accordance with a multi-year investment programme. **In its own installations it sorts recyclable waste and incinerates household waste**, recovering the energy emitted as heat.

However, its centres are not sufficient compared to the processing needs. It is currently using external facilities, chosen through public tender processes, to offset its lack in capacity. In the medium to long term, **its strategy is to have autonomy of treatment resources**.

It invests to process household waste which is produced in its sphere, in accordance with the community logic principle prescribed by the environmental law. Its objective is to ensure better management of the public service without being subject to the varying availabilities of private units.

As part of a public tender process and without resorting to public service delegations, **Syctom entrusts the operation of its facilities to private companies**. This contractual framework allows it in particular to ensure the correct usage of its installations, to directly bring its work up to the required standard in terms of regulatory changes and to conduct all the controls it deems necessary to ensure the proper operation and safety of its centres.

Syctom's engineers lead research to explore possibilities for technical development in its installations, carrying out investment projects, reducing atmospheric emissions, limiting environmental and health risks, and more. **Syctom's engineering expertise is a key asset** that promotes quality and independence in its public service.

SITOM93 AND SYELOM: SPECIAL PARTNERS

SITOM93 (Seine-Saint-Denis inter-municipal syndicate for household waste treatment) and SYELOM (Hauts-de-Seine mixed syndicate for the elimination of household waste) respectively bring together 37 and 30 of Syctom's member municipalities. Their partnership with Syctom takes place within the framework of objectives agreements, through which Syctom provides financial as well as technical assistance and supports their communication campaigns.

SYELOM and SITOM93 help Syctom to implement its waste prevention plan. They organise prevention actions in their area with a view to drawing up and implementing local prevention programmes.

Founded in 1982, SYELOM and SITOM93 celebrated their 30th anniversary in 2012

A COMMUNITY LOGIC

The law of 13 July 1992 relative to the elimination of waste and to classified installations for the protection of the environment provides for the organisation of the transport of waste by processing and eliminating it nearby. This community logic also appears in the Environment code and was reasserted by the 2008 European waste directive as well as by the regional plan for the elimination of household and associated waste (PREDMA) in the Paris region.

SYCTOM'S SPHERE (AS AT 1 JANUARY 2013)



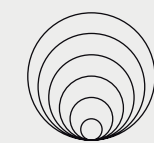
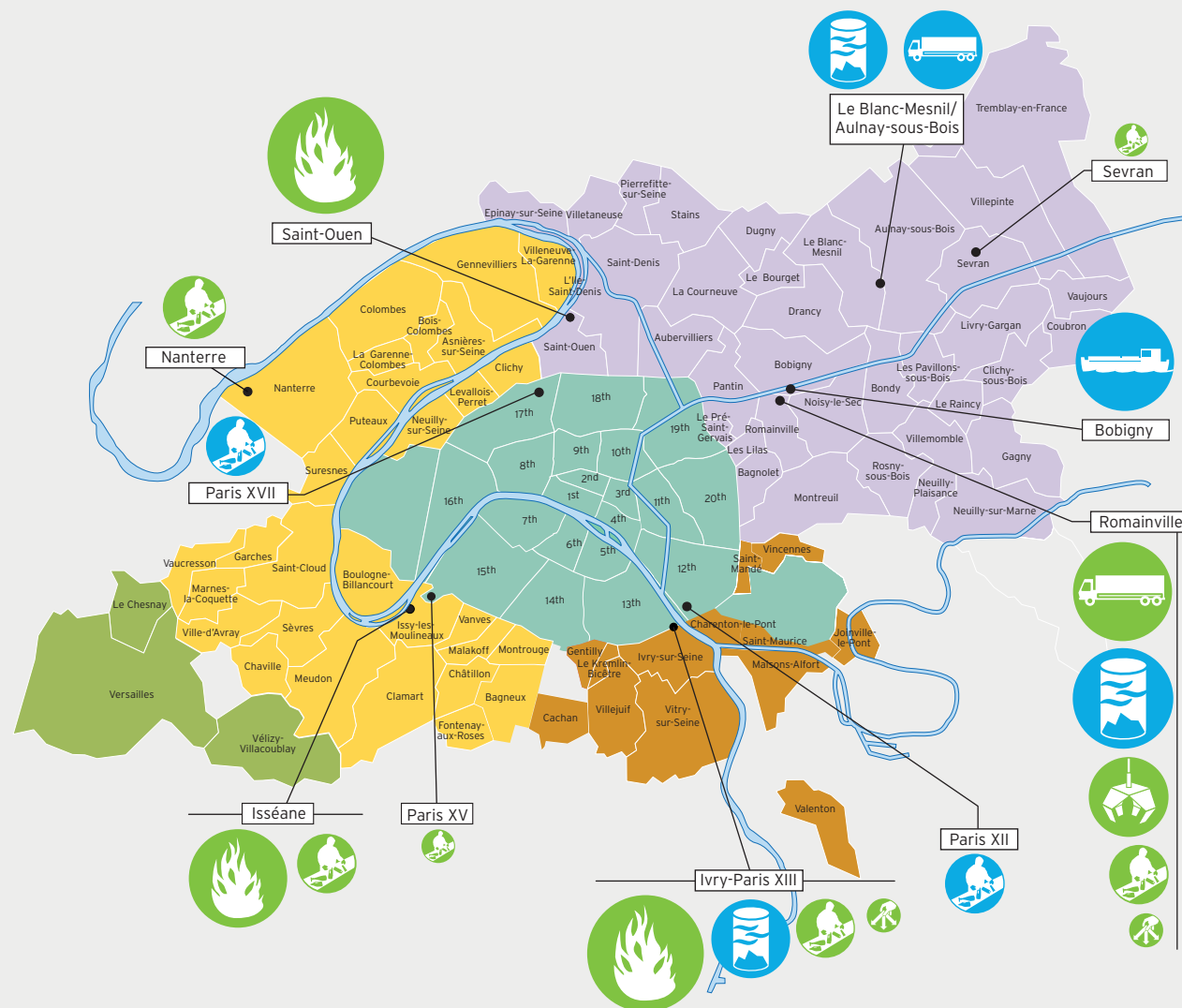
^[1] However, certain local authorities have concluded direct contracts with private operators to process their green waste or materials received in their waste reception centre.

^[2] Glass collected by municipalities which are Syctom members is directly processed by the companies in the recycling sector.

SYCTOM'S INSTALLATIONS

Syctom has 12 processing units spread out over 7 municipalities: 6 selective collection sorting centres, 2 waste reception centres, 1 residual household waste transfer centre, and 3 incineration units with energy recovery. In 2012, it also mobilised 22 private installations.

The following are planned: a methanisation unit in Romainville and a river platform in Bobigny, an organic and energy recovery centre to replace the incineration unit in Ivry-Paris XIII, an energy recovery centre for silt resulting from the treatment of wastewater and organic waste in Blanc-Mesnil/Aulnay-sous-Bois and two selective collection sorting centres in the 17th and 12th arrondissements in Paris.



Scale in relation to the annual processing capacity of the centres.

Syctom at the service

of its member local authorities

In addition to its waste processing mission, Syctom supports the waste management policy followed by its member local authorities, providing them with multiple services.

It guides them in their actions for raising public awareness. As part of this guidance, it develops resources and materials that each local authority can implement at its own scale. It designs tools that it makes available to them free of charge for events (exhibitor stands, display cases, etc.) or that they can use permanently (educational films, activity kits, etc.). Its creates documents designed to make work easier for sorting ambassadors and collection service technicians in contact with the public.

Syctom also provides technical advice to its member local authorities through the support of SITOM93 and SYELOM. It guides them in the implementation of their prevention policy, organising information and exchange meetings, creating synergies between players in the sphere, sharing good practices, providing methodological support, organising training sessions, etc.

The metropolitan agency for household waste also awards grants for the construction of waste reception centres, recycling plants, the deployment of local prevention programmes, improving selective collections, etc.

Finally, Syctom is constantly thinking of ways in which to reduce its burden on local taxes. It is with this in mind that it has committed to controlling its expenditure in order to limit the changing pace of fees that its member local authorities pay it to process their inhabitants' waste. It optimises its costs by creating a competitive business environment when renewing its operating contracts and by negotiating ceiling prices for recovery of materials.

A proactive

force

in the public arena

Syctom has an overview of the production and processing of waste management in the Paris region. Serving some 10% of the French population, its involvement is essential to reach the objectives set at a national and regional level in the field of waste management.

It is for this reason that Syctom acts in the public arena with a view to promoting the waste management solutions that are the most compatible with sustainable development. It has focused in particular on improving methods of governance of eco-organisations and the system for funding selective collections, promoting concrete actions to reduce waste, and promoting eco-designs for products.

Syctom is also a pioneer in metropolitan governance, driven by an approach based on solidarity throughout the Paris region. It is used to promoting collective challenges whilst respecting the diversity and the identity of individual organisations. As such, it is attentive to the dynamics of the region which result in demographic changes and structural projects such as Le Grand Paris and territorial development contracts. Syctom wishes to contribute its experience and skills to an open debate on the governance of the Paris region. It also brings its expertise to local authorities in foreign countries.

PROPOSAL FOR METROPOLITAN GOVERNANCE

Syctom joined forces with other big inter-municipal, mixed and inter-département syndicates responsible for urban public services in the Paris region (water, energy, sewage treatment, funeral services, communications networks) to show their desire to play an active role in reflecting on the Paris region and its governance.



PROPOSAL FOR A PARLIAMENTARY GROUP ON WASTE

During the 12th French National Forum on the Prevention and Management of Regional Waste and in a letter addressed to National Assembly groups, the chairman of Syctom proposed the creation of a cross-party group of ministers. The group would be like the existing Senate group and its objective would be to consider which methods of treatment to favour to reduce waste sent to landfill and incinerated as scheduled by the Grenelle environmental laws.

A STRATEGY BASED ON SUSTAINABLE WASTE MANAGEMENT

Adherence to European guidelines

For twelve years, Syctom has set itself strategic priorities which correspond to the guidelines set by the European Union in 2008 and which are reiterated in the Grenelle law and the Paris regional plan for the elimination of household and associated waste (PREDMA):

- to contribute to the prevention of waste, to limit quantities to be processed and their harmfulness;
- to develop sorting and recycling;
- to adapt its processing capacities to the quantities of waste produced in its sphere, following a community logic;
- to diversify its methods of recovery, depending on the type of waste;
- to reduce use of landfill as much as possible;
- to control the impact of its activities on public health and the environment;
- to increase use of alternatives to road transport.

Reducing waste production

Since 2004, Syctom has been committed to a plan for preventing and recovering waste which has helped reduce the quantities of household waste incinerated or sent to landfill by 210,000 tonnes per year.

Its Metropolitan prevention plan 2010-2014 continues and strengthens these efforts in order to help its local authorities reach national and regional waste reduction targets (- 7% household waste per inhabitant within 5 years) (see page 18).

Diversifying recovery methods

Syctom invests in new installations to sort recycled waste and to recycle household waste, depending on its composition, into energy and/or compost.

In particular, it is developing methanisation projects for bio-degradable waste. Sized on the basis of the foreseen drop in tonnage collected, its projects are designed to evolve over time.

Limiting environmental impacts

Syctom is attentive to reducing problems linked to its activities, whether they be atmospheric, odour or noise emissions or liquid waste. It bases its activities near waste production sites to limit road traffic and its harmful effects. Syctom builds its centres and entrusts their operation through a public tender process and in a way that respects the population, the natural surroundings and urban environment whilst favouring the best technical solutions. It also utilises alternatives to road transport wherever possible.

→ ALTERNATIVE TRANSPORT: A STRATEGIC LEVER

Since 1995, Syctom has made the development non-road transport one of its strategic priorities. To install its equipment, it takes into account the possibility of using environmentally friendly transport methods, as it does when choosing its industrial partners.

The rebalancing of transport methods is part of the guidelines of the European transport policy, the Grenelle laws and the regional climate, air and energy plan to limit nuisances related to road traffic: greenhouse gas emissions; atmospheric and sound pollution; congestion; accident risks.

The Paris PREDMA is also planning on using waterways and railways to a greater extent for the transport of waste.

Acting in consultation and transparently

Using all available resources, Syctom informs the public about its mission and the challenges related to waste management via the website www.syctom-paris.fr, publications, information campaigns, tools to increase awareness, visits and open days at its installations and by participating in trade shows and exhibitions.

It extends its communication efforts to its member local authorities and all stakeholders in order to shine a light on its investment strategy, explain how its installations work, and increase understanding of the methods implemented for the safety of its facilities and the protection of the environment.

As it believes that exchange and discourse helps to collectively improve the overall management of waste, Syctom involves many players in the waste chain in its activity, including investment projects, site operation and prevention policy: officials and departments of its member local authorities, institutional organisations, locals living near its facilities, associations, state departments, etc.

Syctom organises annual site monitoring committee sessions which are held in each of its incineration centres on the initiative of the prefects. If one of these site monitoring committee sessions cannot take place, it informs the state of such. On a regular basis, Syctom brings together committees for monitoring environmental quality guidelines, which ensure adherence to the commitments it has taken with officials and its operational staff in terms of environmental protection and living conditions.

Syctom is making efforts to become more open to exchange with a view to improving its means of governance.

The continuation of the consultation on the transformation of the Ivry-Paris XIII centre as part of a partners' committee is proof of this, as are the introduction of locals acting as "watchmen" on its new sites. Also bearing testament to this commitment is the steering committee that works on and ensures the implementation of "Metropolitan Waste Prevention 2010-2014", and the consultation process carried out for the methanisation projects in Romainville/Bobigny and in Blanc-Mesnil/Aulnay-sous-Bois.

→ ENVIRONMENTAL QUALITY GUIDELINES: PARTNERSHIPS FOR THE ENVIRONMENT

In order to protect natural, professional and urban environments, Syctom builds and operates its installations following environmental quality guidelines. In signing up to these guidelines, Syctom and its operators commit to a number of objectives in terms of resident populations and local authorities which are home to its facilities. Their commitments are, in particular: the preservation of resources; urban, architectural and landscape integration; limiting road traffic; minimising noise and odour problems; information and consultation with the public; environment education; and professional integration. A joint programme for monitoring and control has been set up to ensure that the objectives are being met.

Furthermore, in its institutional framework, Syctom is launching a collective study on the optimisation of waste collection and prevention prior to processing. In the context of the waste PACT in particular, it is carrying out comprehensive work with its member authorities to share knowledge. It is a framework that unites all parties in the greater Paris area to exchange on projects, experiences and tools to be developed. With this in mind, it involves its members in the studies it carries out – at the development stage and the handover of results – and takes part in steering committees set up at local level.

→ 12th FRENCH NATIONAL FORUM ON THE PREVENTION AND MANAGEMENT OF REGIONAL WASTE

Syctom was heavily involved in the event organised by ORDIF and the Réseau Idéal at the Charléty stadium, which brought together all of the stakeholders. Local authorities shared their expertise, focusing particularly on questions about waste prevention and management. Syctom was represented at the session by its chairman and it had a stand that presented its activities to the public.

→ DECLARATION ON THE REGIONAL CLIMATE, AIR AND ENERGY PLAN (SRCAE)

Syctom indicated to the state and the Paris region that it shares the SRCAE project guidelines in terms of the treatment of household waste, and that its existing and planned installations contribute to the energy mix: its 3 incineration units are part of the supply measures for the heating networks planned in the Paris region; the development of the methanisation channel responds to the objectives concerning the development of renewable energies; the strategy to increase river transport contributes to achieving the objective of quartering greenhouse gas emissions by 2050.

A FUNCTIONAL ORGANISATION

The Syndicate committee is supported by a team of 119 employees, public administrative and technical officials, mostly from the civil service. The communication, IT and telecommunications, contracts and legal affairs departments report directly to the Director General for Services.

Four other general departments are also under the authority of the Director General:

- the department for finance and general administration deals with the organisation and management of Syndicate's resources;
- the department for the operation and prevention of waste ensures the proper functioning of Syctom's centres, ensures follow-up of operating contracts, directs and coordinates the actions of the prevention plan;
- the department for technical services is responsible for the construction of Syctom's new centres, for the modernisation of facilities and for the management of industrial heritage;
- the Ivry-Paris XIII department guarantees the services relating to the existing centre and to the extension of the centre's lifespan, and is steering the project for its reconstruction.

The private operators which manage Syctom's processing centres employ 762 people. Syctom requires that they respect the legislative and regulatory provisions which govern their work and that they favour permanent positions and, for certain positions, that they hire disadvantaged persons in cooperation with the employment services of the municipalities. Syctom follows up on the answers provided to observations made by the health, safety and working conditions committees (CHSCT).

In addition, in order to provide the sorting officers with the best possible working conditions, Syctom invests to improve the ergonomics of the work stations and to optimise air processing and soundproofing in the sorting cabins. The modernisation of the installations and the automation of the sorting lines tend to facilitate the work of the operators and allow their role to develop towards quality control. Syctom also carries out a permanent awareness programme with its community members, regarding the quality of sorting at source, in particular to prevent the agents from being exposed to the health risks related to waste from treatments with infectious risks.

DIRECTORY

◆ Members of the Bureau in 2013.

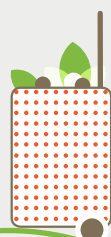
75 ◆  François DAGNAUD Chairman of Syctom, Paris councillor, Mayor of the 19 th arrondissement of Paris	75  Julien BARGETON Paris councillor	75 ◆  Sylvain GAREL Vice-Chairman of Syctom, Paris councillor	75 ◆  Frédérique PIGEON Vice-Chairwoman of Syctom, Paris councillor
93 ◆  Alain ROUAULT Vice-Chairman of Syctom, Chairman of SITOM93	75 ◆  Michèle BLUMENTHAL Vice-Chairwoman of Syctom, Paris councillor, Mayor of 12 th	75 ◆  Fabienne GASNIER Paris councillor	75  Olivia POLSKI Paris councillor
92 ◆  Jacques GAUTIER Vice-Chairman of Syctom, Senator-Mayor of Garches, Chairman of SYELOM	75 ◆  (1) Annick OLIVIER Paris councillor	75 ◆  Danièle GIAZZI Vice-Chairwoman of Syctom, Paris councillor	75  Catherine VIEU-CHARIER Deputy Mayor of Paris
	75 ◆  Yves CONTASSOT Paris councillor	75  Marie-Laure HAREL Paris councillor	DELEGATES OF SITOM93 (SEINE-SAINT-DENIS) 93
	75 ◆  Alexis CORBIERE Vice-Chairman of Syctom, Paris councillor	75 ◆  Jean-Marie LE GUEN Deputy Mayor of Paris, Member of Parliament	93 ◆  Jean-François BAILLON Deputy Mayor of Sevran
	75 ◆  (2) Jérôme COUMET Vice-Chairman of Syctom, Paris councillor, Mayor of the 13 th	75  Marie-Chantal BACH Paris councillor	93  Josiane BERNARD Municipal councillor of Bagnolet
REPRESENTATIVES OF THE CITY OF PARIS 75	75 ◆  (3) Rachida DATI Paris councillor, Mayor of the 7 th	75  Hélène MACE DE LEPINAY Paris councillor	93 ◆  Jean-Pierre BOYER Vice-Chairman, Municipal councillor of Rosny-sous-Bois
75  Aline ARROUZE Paris councillor	75 ◆  Claire de CLERMONT- TONNERRE Paris councillor	75 ◆  Jean-Louis MISSIKA Vice-Chairman of Syctom, Deputy Mayor of Paris	93 ◆  Joseph CITEBUA Municipal councillor of Neuilly-sur-Marne
75  Pierre AURIACOMBE Paris councillor	75  Laurence DOUVIN Paris councillor	75 ◆  Anne-Constance ONGHENA Paris councillor	93  François GIUNTA Deputy Mayor of Saint-Ouen

(1) Annick OLIVIER replaced Pascale BOISTARD in December 2012. (2) Jérôme COUMET replaced Seybah DAGOMA in December 2012. (3) Outgoing at the beginning of 2013.

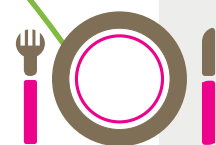
93  Anne JARDIN Deputy Mayor of Clichy-sous-Bois	92  Marc BARRIER Municipal councillor of Ville-d'Avray	92 ◆  André SANTINI Vice-Chairman of Syctom, Deputy Mayor of Issy-les-Moulineaux	94  Alain GUETROT Deputy Mayor of Saint-Maurice
93 ◆  Karina KELLNER Vice-Chairwoman of Syctom, Deputy Mayor of Stains	92  Christine BOURCET Deputy Mayor of Nanterre	92  Hervé SOULIE Deputy Mayor of Saint-Cloud	94  Elisabeth HUSSON Municipal councillor of Gentilly
93  Claude LEMASSON Deputy Mayor of Vaujours	92 ◆  Michel de LARDEMELE Deputy Mayor of Levallois-Perret	DELEGATES REPRESENTING THE LOCAL AUTHORITIES OF VAL-DE-MARNE 94	94 ◆  Laurent LAFON Vice-Chairman of Syctom, Mayor of Vincennes
93 ◆  Bruno LOTTI Chairman of Syctom, Deputy Mayor of Romainville	92  Eric FLAMAND Deputy Mayor of Vauresson	94 ◆  Samuel BESNARD Deputy Mayor of Cachan	94  Robert LEPRIELLEC Municipal councillor of Villejuif
93  Jean-François MAGNIEN Deputy Mayor of Livry-Gargan	92 ◆  Christine BRUNEAU Vice-Chairwoman of Syctom, Deputy Mayor at Boulogne-Billancourt	94  Jean-Louis BOULANGER Deputy Mayor of Kremlin-Bicêtre	94  Isabelle LORAND Municipal councillor of Vitry-sur-Seine
93 ◆  Jean-Philippe MALAVEUDE Deputy Mayor of Neuilly-Plaisance	92  Joël GIRAULT Deputy Mayor of Montrouge	94 ◆  Jean-Marie BRETILLON Mayor of Charenton-le-Pont	94 ◆  Patrick RATTER Deputy Mayor of Valenton
93  (4) Sylvain ROS Municipal councillor of Aubervilliers	92 ◆  Philippe KALTENBACH Senator-Mayor of Clamart	94  Jean-Luc CAEDDU Municipal councillor of Maisons-Alfort	DELEGATES REPRESENTING THE MUNICIPALITIES OF THE YVELINES 78
93 ◆  Gérard SAVAT Vice-Chairman of Syctom, Deputy Mayor of Pantin	92  Maurice LOBRY Deputy Mayor of Colombes	94  Florence CROCHETON Deputy Mayor of Saint-Mandé	78 ◆  Philippe BRILLAUT Vice-Chairman for Syctom, Mayor of Chesnay
DELEGATES OF SYELOM (HAUTS-DE-SEINE) 92	92 ◆  Hervé MARSEILLE Senator-Mayor of Meudon	94  Patrice GENTRIC Deputy Mayor of Joinville-le-Pont	78  Richard GUENICHE Deputy Mayor of Vélizy-Villacoublay
92 ◆  Jean-Pierre AUFFRET Vice-Chairman of Syctom, Deputy Mayor of Clichy-La-Garenne	92 ◆  Olivier MERIOT Chairman of Syctom, Deputy Mayor of Gennevilliers	94 ◆  Pierre GOSNAT Vice-Chairman of Syctom, Mayor of Ivry-sur-Seine	78  Magali ORDAS Deputy Mayor of Versailles

(4) Replaced at the beginning of 2013 by Jean-François MONINO, Deputy Mayor of Aubervilliers.

What if we **bought in bulk?**

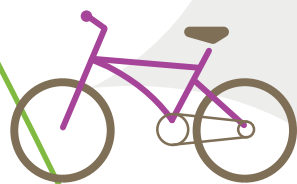


What if we **used up leftovers?**



What if we **composted?**

What if we **repaired** instead of **throwing out?**



reduction

What if we **wasted less?**



2012 OVERVIEW

A WHOLE REGION TAKING ACTION

- 38 %
waste
buried in
ISDNDs

210kg
of clinkers and metal
recovered per 1 tonne
of incinerated waste

70 %
Rate of recycling
for materials from
selective collections

2,679,026
MWh
of steam sold

50 %
Rate of material
recovery from bulky
objects

2012 was a year marked by strengthened exchanges between Sycotom and its member local authorities. The objective of these exchanges was to improve coordination of the prevention policies as well as the management of collection and treatment capacities throughout the Paris region.

The year also saw the continuation of the downward trend in waste production, as a result of the dual influences of the economic crisis and economic players developing a more responsible approach (development of eco-design and reemployment, less food waste, new consumption habits, household composting, etc.). The production of household waste, waste from selective collection sites and glass was down -6.2%, nearly achieving the Grenelle laws' objective of -7% waste per person within 5 years, one year ahead of schedule.

There was also an improvement in the quality of sorting: the level of recycling for selective collections of packaging and paper and of bulky objects has progressed to 70% and 50% respectively. Nevertheless, there is still room for improvement: over 40% of the waste thrown into standard bins is recyclable and 17% of the waste thrown into recycling bins is not.

Finally, the waste processed for energy recovery increased by 7% (+113,473 tonnes), notably due to the return to full capacity functioning of the Ivry-Paris XIII incineration unit. In parallel, the use of landfill decreased by 38% (-172,694 tonnes).

PREVENTION

WASTING LESS, IT'S THE BEST!

Halfway through the Metropolitan Waste Prevention 2010-2014 plan, Syctom's member local authorities are on track to reach the waste reduction target established by the Grenelle laws (-7% per person between 2008 and 2013). In 2012, the quantity of household waste, selective collections, and glass treated per inhabitant in Syctom's sphere was reduced by 6.2% compared with 2008.

With its support and financial aid, Syctom is contributing to the regional prevention dynamic. In 2012, its support in favour of waste reduction, including its contribution to the ADEME budget through the TGAP tax, rose to €8.7 million - a 33% increase compared to 2011.

Support for local prevention programmes

Beyond regional objectives

At the end of 2012, 29 of Syctom's local member authorities were involved in a local prevention programme (63 municipalities), including one municipality with fewer than 20,000 inhabitants (Coubron) that did not come under the ADEME support measures. With 5.2 million inhabitants covered by a local prevention plan, 92% of the population in Syctom's sphere is committed to the reduction of waste, whilst the local target is to reach 80% of inhabitants in the Paris region.

Support for those running projects

Syctom gives a maximum of €20,000 per year per municipality for actions by local players aimed at raising public awareness about reducing the quantity or harmfulness of waste. In 2012 this aid supported initiatives such as: public meetings; tradesperson and shopkeeper challenges; special events during the European Week for Waste Reduction; information stands in public and commercial spaces; environmental education and more. The aid supported 10 projects presented by the agglomeration communities Grand Paris Seine Ouest and Mont Valérien, the municipalities of Châtillon, Colombes, Coubron, Gennevilliers, Levallois-Perret, Vitry-sur-Seine, and the associations PikPik Environnement, Enfants de Sèvres and CRL10.

Long-lasting kits for raising awareness

Syctom has developed kits for raising awareness about food waste and home composting of organic waste and has created specially adapted event guidance sheets. Over 50 "no-waste cooking" and some 15 composting kits were distributed free of charge to member local authorities. In 2012 these kits were put to use for organising around 200 events which were attended by 23,000 people. Durable and reusable, these new tools take the form of magnetic boards on pop-up display stands. New themes can be displayed on the panels that adapt to the support structure. The kits are also available as canvases.

Contact with municipalities

In 2012 Syctom continued its mission of organising events in its sphere. Comprising three people and supported by the communications management, the prevention team focused on personalised meetings with local authorities and representatives from ADEME and the regional council. Syctom also attended the local prevention programme steering committees, relying on SITOM93 and SYELOM in particular, and participated in working groups and committees organised by the region looking at prevention (reemployment, large retailers, composting, etc.).

Methodological "coaching"

To help its member local authorities implement their local prevention programme, Syctom finances the involvement of a specialised environmental studies company (Inddigo) for 6 half-days per year per local prevention programme. A themed catalogue was created in 2012 and 50 interventions were carried out with 14 municipalities, in particular: defining the project team; an inventory of those involved; writing up a diagnostic; establishing an action guidance sheet; creating a publicity campaign; setting up a website; and adding to the costs matrix.

50,000 composters in 2014

Since autumn 2011, Syctom has distributed more than 5,100 composters to member local authorities promoting home composting of kitchen and garden waste, which make up 30% of what we throw in the bin. Destined for 7,000 households, 75% of the materials related to housing developments, 18% vermicomposting and 7% for collective composting at the foot of buildings. The training given by master composter, Jean-Jacques Fasquel, was attended by 120 people: local authority technical advisors, residents, officials from Syctom and member associations. 7 municipalities agreed to be audited by the ComposTerre research office to compose the first lot of feedback about home composting. With 80% of financing coming from ADEME and the Paris region, this materials distribution and acquisition operation has increased to €280,000. The municipalities only pay 10% of the material's price and benefit from Syctom's support for the implementation of their action programme. **At the end of 2012, there was a total of 27,000 composters** in the area overseen by the metropolitan agency for household waste, representing 6,000 fewer tonnes of waste.



From 17 to 25 November 2012, Syctom made the most of the European Week for Waste Reduction to make more than 2.4 million people using the ring road think about the challenges of waste prevention. Two inflatable walls on the roof of the Paris XV sorting centre displayed two giant messages that were visible both day and night.

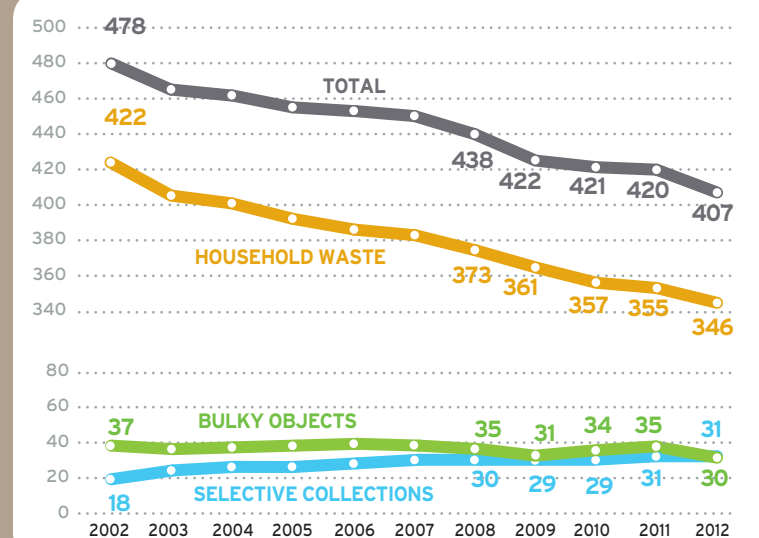
Industrial tool, communication medium

Visits to Syctom treatment centres continue to provoke keen interest. In 2012, Syctom's external relations department welcomed more than 7,600 people, with nearly three quarters of them coming on group visits and just over a quarter visiting on open days. The Nanterre, Sevran and Paris XV sorting centres, the Saint-Ouen incineration unit and the Issy-les-Moulineaux and Ivry-Paris XIII multi-channel centres all hosted a public open day. As well as school groups and the general public, throughout out the year visits are organised for information intermediaries (sorting ambassadors, municipal technicians, officials, social housing landlords, caretakers, etc.) and businesses concerned with eco-design.

These meetings are important moments of exchange which help to maintain a trust-based relationship and develop Syctom's messages. Through these visits everyone can gain a greater awareness of the impact of waste production, as well as the importance of eco-design, sorting at source and everything that is involved in reducing waste. By showing and explaining what happens to waste, Syctom gives meaning to environmentally friendly actions that become part of a daily routine and helps to encourage people to use waste treatment facilities more.

CHANGE IN WASTE PROCESSED PER PERSON* (2002-2012) IN KG/PERSON

Within 10 years, the household waste treated by Syctom has fallen by nearly 215,000 tonnes despite an increase in population (+7% on a like-on-like basis*). In terms of inhabitants, this equates to a reduction of 71.3 kg or an annual reduction of 1.5 %. Household waste fell by 76.5 kg/person, bulky objects by 6.9 kg/person and selective collections increased by 12.1 kg/person. In 2012 the decade's downward trend was even more accentuated with a 3% reduction in the waste treated per person compared with 2011. Although selective collections stabilised in relation to 2011, they exceeded the volume of bulky objects for the first time (30.4 kg/person versus 30.1 kg/person).



Reducing the harmfulness of waste

■ Preparing tools for raising awareness



Syctom worked in collaboration with its member local authorities to prepare a communications campaign to promote the sorting of batteries and used lights. To this end, contact was made with the eco-organisations Screlec, Corepile and Recylum and its institutional partners. The campaign will have posters, articles ready for use in municipal resources, educational information sheets and an events kit. A telephone survey was also carried out to gauge interest levels among member local authorities regarding the installation of large signage (fun flags) to reinforce the visibility of toxic waste collection points. The feedback was positive.



→ FINANCIAL AID FOR WASTE RECEPTION CENTRES

In six years, Syctom has co-financed 16 waste reception centres to promote the creation of a community network. The subsidy rose to 15% of total investments and up to 20% if the waste reception centre carried out actions promoting reemployment such as awareness-raising events and specialised equipment. It also includes a contribution to the purchase of property (€30 per m², with a ceiling limit of 3,500 m²).



→ WIDENED RESPONSIBILITY FOR PRODUCERS OF CHEMICAL PRODUCTS

According to the 'polluter pays' principle, producers and distributors of household chemical products (maintenance products, paint, phytosanitary products, inks, etc.) are responsible for what becomes of the goods they put on the market. As of 1 January 2013 they have to take responsibility for the collection, treatment, and recycling of waste from chemical products through an eco-organisation created for this purpose: Éco-DDS. Syctom is preparing to be able to sign an agreement as soon as possible with Éco-DDS, approved at the end of 2012, so as to benefit from the financial support linked to the treatment of waste from chemical products currently taken to waste reception centres by households.

Developing reemployment

■ Three new research centres in 2012

To promote the development of resource and recycling centres in its sphere, Syctom can finance 20% of investments (with a limit of €500,000) and reduce the operating costs of these installations to inhabitants by processing their residual waste free of charge. In 2012, it also gave its support to three resource centres, thereby encouraging the development of single activity in the centre. In Ivry-sur-Seine, Cyclofficine recovers and repairs old bicycles and enables them to be purchased and maintained in a cooperative framework.

Rejoué, an association in the 14th arrondissement in Paris, collects toys and gives them a new lease of life, with the aim of creating a professional second-hand toy market. In the 11th arrondissement, the Petite Rockette collects and repairs or transforms objects that would usually be thrown away, then sells them at a modest price.

In addition, Syctom signed a partnership agreement with the Emmaüs Val-de-Marne community for the recuperation and resale of objects left at the Ivry-Paris XIII waste reception centre that are still in a good condition. Through this system more than 2 tonnes of used goods were able to be removed from the waste channel.

■ Preparing a regional reemployment directory

As part of a working group comprising representatives of Ivry-sur-Seine and Paris, the agglomeration community Val-de-Bièvre, Essonne and the Paris region, Emmaüs, Réseau Envie and the French Friends of the Earth, specifications were drawn up in preparation for consultation to create an online reemployment directory in 2013.

→ PARTNERSHIP WITH ASSOCIATIONS COMBATTING FOOD INSECURITY

Syctom decided to give advice on waste reduction and recovery to the Neptune association in Montreuil-sous-Bois and the Banque alimentaire de Paris Île-de-France (Paris Food Bank). It also treats part of these charities' waste free of charge.

Promoting eco-design

■ The 1st Zero Waste Design student competition

Syctom, in partnership with the Paris region, decided to call on the designers of tomorrow's consumer goods to find waste-reducing solutions that can be applied to the very source of the problem and reduce the weight of our bins. For the first Zero Waste Design competition, Syctom organised seminars in five higher education establishments to raise awareness. Of the 25 entries received, 14 went forward to be considered by the jury. Five projects received awards based on the quality of their entry, the originality of the idea, their waste-reduction impact and its compatibility with the Paris region. The three jury prizes went to the ENSCI engineering school, Cergy-Pontoise University and Boule school. Syctom's two special prizes were awarded to Strate College. A trendbook detailing the 14 projects judged by the jury was distributed to Syctom's partners. It is available at syctom-paris.fr.

■ Partnerships with businesses

Syctom is dedicated to raising awareness among industrial companies and commercial and distribution businesses about the end-of-life of the products they put on the market, and to promoting eco-design. In 2012, it arranged visits to its installations for delegations from Albéa, Alliance Carton Nature, Bayard Presse, Bonduelle and l'Occitane. They were offered a visitors' charter to commit to a process of action and collaboration in favour of reducing waste. At the end of 2012, three of them had signed the charter. In partnership with the Paris region, Syctom also organised specific actions targeting the distribution sector: eco-design mornings with the Regional Chamber of Commerce and Industry; in-store coaching on pilot sites.

Setting a good example

■ "Eco offices"

In keeping with the diagnostic carried out in 2010 about the example Syctom sets when it comes to waste reduction, an eco-responsible staff charter was signed by Syctom's chairman, director general and 70% of its staff. The charter comprises nine actions to include in our daily routines such as turning off lights, minimising paper printing, favouring shared transport, etc. Working groups were formed to look at household composting and the management of papers in the office. A vermicomposter was installed on the 2nd floor of Syctom's premises and 25 members of staff started composting at home.

→ WHY AND HOW TO REDUCE WASTE?

The collection and processing of waste have environmental impacts and account for significant financial costs for local authorities and ultimately taxpayers. It is thus necessary to reduce its quantity at source and its harmfulness. It concerns everyone; industrial companies, in developing the eco-design of their products, and households alike. Placing a 'no adverts' sticker on your letterbox; taking a shopping bag with you; choosing reusable products and those with recycled packaging; avoiding food waste; passing on used objects still in a good condition; composting organic waste; separating batteries, lights, solvents and syringes from other waste and so on. There are so many actions that help preserve the environment, save natural resources and minimise public spending.



Collective composting of peelings and other kitchen waste provides natural fertiliser for the window boxes and green spaces of a building, as well as creating a communal tie between residents. A sociable activity that fully supports a circular economy.

MATERIALS RECOVERY

SORTING - A HABIT FOR THE PLANET

Syctom continued with its strategy for the development of its material recovery capacities and undertook two experiments to increase the tonnage of packaging recycled.

Whilst the application of Barème E showed Syctom's authorities the benefit of speaking as one with regards Éco-Emballages (+ €3.3 millions of support compared with Barème D), the mutualisation principle also prevailed regarding the Éco-Mobilier and Éco-DDS contracts.

In 2012, Syctom's own support for selective collection increased to €29.5 million (+10%). In 2012, due to the effects of the economic crisis and the implementation of prevention policies, Syctom's waste reception centres, sorting centres, and pre-sorting centres saw a -6% reduction in the tonnage received. The quantities of recyclable materials extracted from this waste reduced by only 3%, evidencing an improvement in the quality of sorting. In total, waste which was subject to materials recovery, including glass and clinkers, accounts for 706,215 tonnes, or 29% of the tonnage processed in Syctom's sphere.

Developing sorting capacities

■ Modernisation of the Nanterre sorting centre

The Nanterre sorting centre was modernised in 2012 to optimise its treatment capacities and improve the performance of the automated sorting and working conditions for staff. A continuous service was maintained during the 6 weeks of works. In accordance with the market concluded in 2011, the operator installed an innovative automated sorting system that can extract nearly 10 types of empty containers (bottles, small bottles, food cartons, etc.) one after the other on the same sorting conveyor belt. The system continually adapts to the composition of the materials on the conveyor belt and ejects as a priority the material that is present in the largest quantity. This procedure enables a 30% increase in sorting speed, a 2% increase in the installation's availability, and for the centre's authorised 40,000-tonne capacity to be reached. It also allows for the staff's work to evolve towards quality control. Syctom also equipped its Nanterre centre with 3 supply hoppers for the sorting chains at a cost of €525,000, with software allowing for the steering of the throughput according to the composition of the selective collections.

■ A sorting centre planned for the 17th arrondissement

The sorting centre planned for the Batignolles area will be located near the future Paris law courts and will be connected to a pneumatic collection system for household waste planned in this district. Built on an 11,000m² site belonging to the City of Paris, the centre will enable 30,000 tonnes of selective collection to be sorted per year. Around 15,000 tonnes of paper, newspapers and magazines will leave the centre via a rail logistics platform still under consideration. As well as 500 tonnes from the district, the centre will also take in packaging waste collected in the Paris arrondissements and nearby municipalities, which will help to restore regional balance in Syctom's processing installations. With an estimated pre-tax cost of €56.4 million, this project will be ready to start as soon as the easements, urban constraints and the forms of property management involved in the project have been defined.



→ SORTING EXPERIMENT FOR SMALL METAL PACKAGING

In partnership with the Club for Light Aluminium and Steel Packaging (CELAA), a three-year scheme was tested at the Nanterre sorting centre. The scheme aimed to collect capsules, coffee pods, lids and other metallic packaging that is too small for current sorting machines. A Foucault current and magnet were installed. This system creates a magnetic field that is used as a repellent to extract ferrous and non-ferrous metals respectively from the incoming fine waste.

→ RECYCLING CLINKERS IN ROAD BALLAST

Applicable from 1 July 2012, the order of 18 November 2011 reinforced the environmental regulation for the recycling of clinkers in road ballast. The physical-chemistry parameters to analyse have been enlarged and the thresholds outside of which the clinkers cannot be recovered are stricter, which could lead to some additional treatment costs. Nevertheless, according to the analyses carried out by Syctom and its recycling channel partners, the majority of clinkers coming from incineration units are recoverable under the new regulations, in ballast for roads and related structures. With this in mind, Syctom invites the Paris region's public project managers to support this local circular economy.



■ Tests for sorting all plastic packaging

After 2 preparatory years, Syctom fully committed to the national experiment launched by ADEME and Éco-Emballages. The experiment aims to extend the sorting of household waste to all categories of plastic packaging. Works have been carried out on the Sevran sorting centre, one of the 51 national pilot sites, to adapt the chain to the new sorting recommendations. Since 1 March 2012, 390,000 residents in the Paris region have seen their daily actions made easier. The scheme will continue until December 2013 when the public authorities will decide if it is suitable to roll out throughout continental France. Inhabitants of 10 municipalities in Seine-Saint-Denis⁽¹⁾ and in the 3rd arrondissement in Paris were asked to put the entirety of their plastic packaging in the recycling bin⁽²⁾. At the end of 2012, the ratio of selective collection per person in the Sevran catchment area surpassed that of 2011 by 6.6%, whilst it led to a slight decrease in Syctom's sphere.

This evolution is not solely due to the recovery of new plastics (plastics films, punnets, yoghurt pots, etc.), but also down to a boost in sorting brought about by the communications campaigns of municipalities participating in the experiment. Sorting all plastic packaging waste would double the tonnage of plastic packaging recycled.

Raising awareness about recycling

■ Innovation is in the box!

Syctom supported the Musée des Arts et Métiers, which receives 250,000 visitors each year, in the opening of an exhibition space dedicated to food packaging. Designed with educational and fun aims in mind, this exhibition will be in place for 5 years. The exhibition gives a clear overview of the life cycle of food packaging and the major innovations that have transformed it. Syctom has given advice and provided exhibits and images as well as tools for raising awareness about reducing and sorting waste. This commitment is part of its strategy aimed at promoting the recycling of packaging to achieve more sustainable consumption habits.

■ Preparing an information campaign about sorting



In partnership with its member local authorities, Syctom worked on a communications campaign to reinvigorate the sorting of household waste in its sphere. A poster has been planned, as well as educational video clips, ready-to-use articles for websites and municipal bulletins of member local authorities, a special events pack and a pocket ABC of waste.

→ RECYCLING AT THE HEART OF A CIRCULAR ECONOMY

Household waste comprises deposits, such as papers, metals, glass, plastics, etc., which can be reused in an industrial production cycle and used to make new products if they are sorted and treated in an appropriate way. Recycling them is both of ecological and economic interest. It reduces the quantity of waste that is incinerated or sent to landfill. It saves raw materials and leads to general water and energy savings in the production process. It avoids the environmental damage linked to mineral extraction. It also creates new activities. In 2012, more than 40% of waste thrown in the standard bin was recoverable and 17% of waste thrown in the recycling bin was not. Room for manoeuvre is still possible in order to achieve the recycling level for household packaging waste set at 75% by the Grenelle laws and the collection ratio target for newspapers, papers and packaging of 47.6 kg/inhabitant in the Paris region. These ambitious targets require the active commitment of all players in the waste chain. Syctom is making industrial companies aware of eco-design, boosting household sorting, and making efforts to improve processes in sorting centres.

⁽¹⁾ Aulnay-sous-Bois, Clichy-sous-Bois, Coubron, Le Raincy, Livry-Gargan, SEAPFA (Blanc-Mesnil, Sevran, Tremblay-en-France, Villepinte), Vaujours.

⁽²⁾ Packaging made from rigid plastic (bottles and small bottles, but also punnets, yoghurt pots, blister packs, etc.) and flexible plastic (plastic films, sachets, bags, etc.).

→

€500,000 FOR
HIGH-POTENTIAL AREAS

With the aim of improving sorting performance levels across the metropolitan area and preserving the balance of local finances during the implementation of Barème E, Syctom is dedicating an annual funding packet of €500,000 to support high-potential areas. This aid is capped at 80% of the cost of projects to increase the quantity and quality of selective collections, with a limit of €300,000 per project. Following a call for tender, 4 successful municipalities benefited from a subsidy from the agency in 2012: Gennevilliers, for the installation of sunken containers in social housing residences; the agglomeration community of Bourget airport (CAAB) for the installation of a sorting machine for bottles, small bottles and food cartons, with an incentive scheme for residents (reduction of tenant charges according to sorting performance); the agglomeration community of Mont-Valérien (CAMV), for the harmonisation of bin colours (yellow) as well as for the modernisation and creation of voluntary drop-off points in Nanterre and Suresnes; the City of Paris, for instigating a programme to raise awareness in 20 sectors across several arrondissements.

Supporting selective collection

■ Barème E: a win-win contract

The support for the collection and sorting of household packaging given by Éco-Emballages as part of the 2012 financial year increased, in line with Syctom's projections, to €25.5 million - a €3.4 million increase from 2011 (Barème D). This data confirms the well-founded nature of the mutualisation principle that prevailed during the renewal of the partnership with Éco-Emballages for the application of Barème E. By choosing to act as one in a single contract, the metropole's 84 municipalities opted for optimum financing that gives room for manoeuvre, particularly in relation to developing a network of sorting ambassadors.

■ Widened responsibility for furniture producers

Undertaking the collection, recycling and reuse of used domestic bedding and furniture, Éco-Mobilier was approved by the public authorities on 26 December 2012. To better anticipate the implementation of this new channel, Syctom analysed the system and the forms of contractualisation offered to the authorities and evaluated their financial implications. Two options for contractualisation could be offered to authorities: a financial agreement for authorities wishing to remain in charge of the collection and treatment, and a furniture collection contract through which authorities would entrust the treatment to Éco-Mobilier.

Syctom recommended common contractualisation forms to all its member local authorities, favouring the signing of a single contract with Éco-Mobilier to guarantee the increased power of the support system, in keeping with existing regional organisations. It will monitor the authorities to see that they receive all the aid relating to the collection of used furniture from waste reception centres and all the aid for which they qualify.

Syctom is also ready to sign a contract with Éco-Mobilier at any moment to benefit as quickly as possible from the financial support (estimated between €2.7 million and €5.2 million) pertaining to the treatment and recycling of old furniture collected door-to-door with bulky objects, of which they are the majority.

■ Syctom gives €29.5 million

The aid that Syctom usually gives to its member local authorities, at a sum of €125.89 per tonne of selective collection arriving at its sorting centres, increased to €29.5 million in 2012. In parallel to the implementation of Barème E, Syctom gave additional subsidies to glass recycling, the creation of sorting ambassador positions, and the improvement of selective collection in high-potential municipalities in its sphere. In total, Syctom's support to selective collection increased to €29.5 million in 2012, an increase of nearly 10% compared with 2011.

BREAKDOWN OF RIVER TRANSPORT
BY MATERIAL: 15,886 FEWER
LORRIES ON THE ROADS

TOTAL
381,264 t

Cardboard
12,256 t

Paper
47,532 t

Bulky objects
12,937 t

Incinerated scrap metal
6,000 t

Plastic (PET)
5,370 t

Clinkers
297,169 t

Increasing by nearly 14,000 tonnes in 2012, alternative transport was used for over 380,000 tonnes. More than a third of products and waste dispatched by Syctom were transported using waterways. The year was marked by an increase in the quantity of clinkers transported by river that was greater than the rise in the quantity of tonnage incinerated (+ 12% compared to + 9%). Traffic of two elements introduced at the end of 2011 also saw an increase: the evacuation of incinerated large scrap metal and cardboard from selective collections.

CHANGE IN COLLECTIONS SENT FOR MATERIALS RECOVERY (2002-2012)

Year	Bulky	Waste reception centres	Selective collections	Total
2002	177,242	59,408	105,086	341,736
2003	183,842	52,182	130,146	366,170
2004	190,335	58,499	139,869	388,763
2005	199,602	40,375	142,513	382,490
2006	210,650	39,348	154,455	404,453
2007	202,559	38,067	166,388	407,014
2008	192,436	29,286	166,903	388,625
2009	172,530	32,468	162,539	367,538
2010	182,137	29,735	166,432	380,314
2011	188,969	21,852	174,140	387,961
2012	167,859	17,744	172,730	358,333

The quantity of waste entering Syctom's waste reception centres, selective collection sorting centres, and centres for pre-sorting bulky objects increased by 5% compared with the last decade.

Due to the effects of the economic crisis and the implementation of prevention policies, there was reduction in the tonnage received in 2012 (- 7.9%). With 172,730 tonnes, selective collections stabilised (- 0.8% compared to 2011). However, the proportion of household packaging waste and glass in the selective collections and household waste increased from 12% to 13%, which bears testament to the sustained efforts of household sorting. Furthermore, the quality of the collection is improving (a one-point reduction in sorting rejects).

Between 2011 and 2012, the quantities of waste received at Syctom waste reception centres fell by 18.8%. The reduction of bulky objects was 11.2%. In difficult conditions it is probable that households are postponing the purchase of equipment.

BREAKDOWN OF MATERIALS FROM SELECTIVE COLLECTION BINS AFTER SORTING⁽¹⁾

A SECOND LIFE
FOR RECYCLED MATERIALS

- ➔ Around **50 kg of steel** can be recycled into **1 supermarket trolley**.
- ➔ Just under **2 kg of aluminium** can be recycled into **1 scooter**.
- ➔ **4 food cartons** (40 g) will make **1 roll of toilet paper**.
- ➔ With **3 cardboard cereal boxes** (242 g) you can make **1 shoebox**.
- ➔ **100 kg of recycled paper** is enough to print more than **550 newspapers**.
- ➔ **12 drinks bottles** can be recycled into **1 pillow**.
- ➔ With **67 water bottles** you can make **1 double quilt**.
- ➔ From **11 milk bottles** you can make **1 watering can**.

Paper
32.7 %

Cardboard packaging
(including food cartons)
20.3 %

Other paper and cardboard
10.4 %

Plastic packaging
5.5 %

Steel and aluminium tins
1.5 %

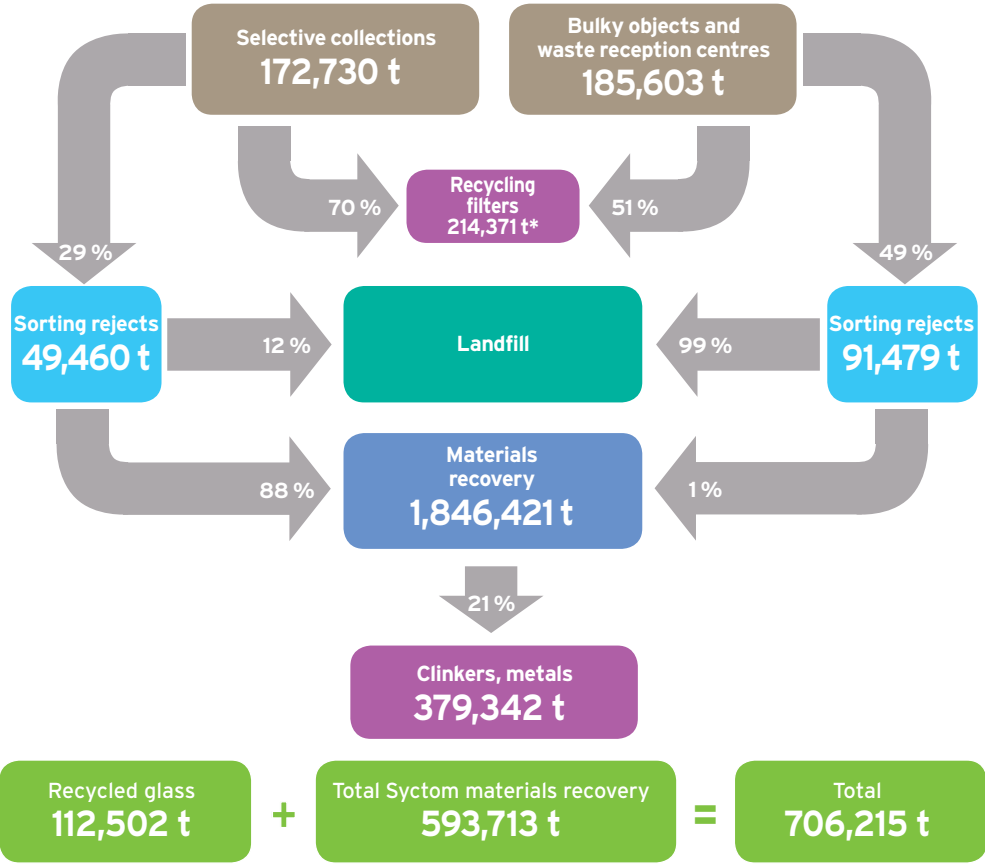
Small electrical appliances
0.2 %

Sorting rejects
29.1 %

⁽¹⁾ Stock of materials passed on the sorting chain and waiting to be dispatched to the channels representing 0.3%.

MATERIALS RECOVERY CHANNELS

In total, 29% of waste processed by Syctom results in materials recovery.



SELECTIVE COLLECTIONS

After having been sorted by households and put in the relevant bin (usually a yellow bin), paper, newspapers, magazines, cardboard packaging, plastic bottles, food cartons, metal food tins and cans are sorted once more at the sorting centres.

A quality control is carried out when waste enters the sorting centres. If the skips contain too much undesirable waste (household waste, soiled materials, etc.), it is sent to an energy recovery or landfill centre. This represents 4% of the quantities collected (7,268 tonnes in 2012). This is known as "reclassification". Furthermore, the municipality will apply the tariff for the cost of processing household waste, which is less favourable than that of selective collections.

The waste arriving in the centres is sorted mechanically and manually. It is separated according to material (cardboard, paper, types of plastic, steel, aluminium, etc.) and 71% is compacted in the form of "balls" before being transported to industrial recycling companies (paper or steel factories, etc.).

The remaining 29%, the "sorting rejects" (sorting errors by residents and loss of recoverables on the sorting chain), is sent to an energy recovery or landfill centre.

BULKY OBJECTS

Bulky objects (broken or used furniture, mattresses, large cardboard boxes, building and construction debris, etc.) are pre-sorted to remove the large items before being sorted on an automated sorting chain in the centres and then transported to other specialised centres. After this refined sorting, 51% of the incoming waste is then sent to dedicated recycling channels (plastic covers, wood, cardboard, ferrous and non-ferrous materials). The remaining 49% (non-recoverable waste) is essentially sent to landfill centres.

INCINERATION RESIDUES are also recovered. Metals are delivered to the metal industry for the production of new alloys. After processing in specialised centres, clinkers are used as ballast by the civil works sector.

In 2012, the material recovery from waste treated in Syctom's sphere, including glass, increased by 1 percentage point (29% compared to 28%).

* Excluding stock 3,023 t.

RECOVERY OF ENERGY AND ORGANIC MATTER

MAKING THE ECOLOGICAL TRANSITION A SUCCESS

In 2012, Syctom put a lot of work into the advancing urban ecology, making a concerted effort to develop its projects. After a phase of intense dialogue, Syctom reorientated its sorting-methanisation project in Romainville/Bobigny by systematically integrating the Est Ensemble agglomeration community's requests. As part of competitive dialogue procedures, Syctom pursued its exchanges with business groups to refine its projects for the centre for organic and energy recovery in Ivry-Paris XIII and the centre for silt and organic waste recovery in Blanc-Mesnil/Aulnay-sous-Bois. Its aim is to recycle waste according to its composition, in order to use all its resources to full advantage and to eliminate the proportion designated for landfill.

Overall, 1,846,421 tonnes of waste were recovered as energy, or 60% ⁽¹⁾ of the tonnage processed in Syctom's sphere (including glass).



⁽¹⁾ After deducting incineration residues subject to materials recovery (379,352 tonnes of clinkers and metals), accounted for as materials recovery.

Supplying the networks

The incineration of household waste (HW) is recognised by the 2008 Waste Directive as a recovery operation if it reaches a high energy yield. The Grenelle laws recognised its place as a method of waste processing and energy production and Syctom's 3 incineration and energy recovery units were taken into account in the regional climate, air and energy plan. Energy recovery saves natural resources, as household waste is used instead of fossil fuels to feed urban electric or heating networks.

It avoids generating greenhouse gas emissions: for the same energy value produced, the quantities of fossil CO₂ emitted by incinerated household waste are, respectively, 55% and 40% lower than those emitted by coal and fuel oil^[1].

Taking up little space, the incineration of waste is a particularly interesting solution in towns and cities. It provides local energy with controlled impacts^[2]. It also has the advantage of significantly reducing the quantity of waste: residual waste accounts for only 2% of tonnage entering the Syctom energy recovery units, and nearly all clinkers, which account for 18%, are recovered.

■ The Ivry-Paris XIII project in competitive dialogue phase

Taken on in 2011 by Syctom, the project is for the transformation of the current Ivry-Paris XIII centre into a centre for energy and organic recovery from waste. It includes a mechanical sorting installation for household waste, a methanisation unit and an incineration and energy recovery unit with scalable functionalities. These will be reduced by 20% compared to today for the overall site, and 50% for incineration. The installations are proportioned in relation to the requirements of the catchment area (482,000 tonnes of HW and 8,000 tonnes of organic waste) and the network management of Syctom installations. The commissioning of these installations is scheduled in stages between 2021 and 2026, for a total investment of €860 million excluding tax and revision.

2 SERIES OF HEARINGS

In 2012, the 2 groups (Generis and IP13) retained after the call for applications to participate in the competitive dialogue on the design, construction and operating of the future centre underwent 2 series of hearings. Building on their mission statement and their initial offering, they detailed their technical propositions regarding the project's overall components (processes, installation, transportation, maintenance and operation of treatment units, logistical elements, risk management, architecture, civil engineering, etc.) The procedure gives Syctom more opportunities to exchange with candidates than a traditional call for tender and is favourable with regards the quality of applications. The proposals will be examined in early 2014.

→ SYCTOM'S WASTE: A SOURCE OF ALTERNATIVE ENERGY

Syctom's waste: a source of alternative energy
1,846,421 tonnes of household waste incinerated
→ Heating and hot water for 320,000 homes*.
→ Consumption of 320,000 tonnes equivalent tonnes of oil prevented, i.e. 6,400 collective heaters with gas or fuel oil.
→ Covers almost 45% of the Paris Urban Heating Company (CPCU) network's steam needs.

* Home of 80 m² occupied by 4 persons in a collective building built between 1995 and 2000. Taking into account the 2005 energy review of the HWIUs, as published in PREDMA, i.e. 8 MWh/year per housing equivalent.

ORGANIC WASTE STUDY

Following on from the "Organic waste diagnostic" study carried out throughout its sphere, Syctom is ready to launch a feasibility study. The aim is for a precise evaluation of the organic deposits in the Ivry-Paris XIII centre's catchment and the financial and technical methods to implement to collect them in the most efficient way. Exchanges took place with the municipalities concerned, in order to take local considerations into account in the study's specifications. Experts in waste management, the Verdicité studies bureau won the call for tender to carry out the study and a steering committee was established comprising all the municipalities.



The Ivry-Paris XIII centre provided the backdrop for Jacqueline Dauriac's installation for Nuit Blanche 2012, a sign of its full integration into the area.

^[1] Source: Amorce. ^[2] InVS study – 02/2009.



2012 saw the completion of the extension works on the Ivry-Paris XIII incineration unit that started in 2009 with view to service continuity until 2019. The project recorded a €8.3 million saving compared with initial estimations.

PURSuing DIALOGUE

The committee for monitoring the environmental quality guidelines at the Ivry-Paris XIII centre had two meetings in 2012 in March and June. In addition to operators and representatives from Syctom, Ivry-sur-Seine, the Council of the 13th arrondissement, state services, the general committee of Val-de-Marne and the Paris region, the committee comprised representatives from the associations ADEME and Airparif^[3]. The exchanges focused on site activity dashboards relating to materials flows, energy recovery, consumption of fluids, waste rejects and nuisances.

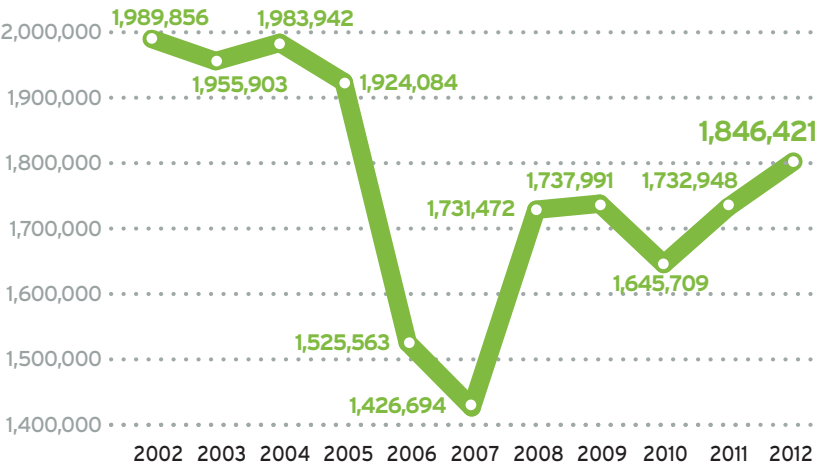
The partners' consultation committee also met in June 2012. A mid-point review of the Metropolitan Waste Prevention 2010-2014 plan, the different feasibility studies on the separate collection of organic waste, the inter-syndicate cooperation agreements with SIEVD and the study on organic waste in SIEVD's sphere were all presented at the meeting.

Following a call for volunteers from Ivry-sur-Seine and the Council of the 13th arrondissement, 18 people living or working in the surrounding area volunteered to be watchmen at the Ivry-Paris XIII centre. As a link between residents on one side, and Syctom and the host municipalities on the other, these watchmen will fulfil an observation role at the treatment centre both now and during the construction and operation of the future centre. They will also be responsible for monitoring adherence to the environmental quality guidelines. During the first meetings, Syctom explained to them the waste problem in France, Syctom's strategy, the current Ivry-Paris XIII centre and its planned transformation, as well as the environmental quality guidelines and monitoring indicators.

^[3] Source: Approved association for air-quality monitoring in the Paris region.

CHANGE IN INCINERATED WASTE (2002-2012) in tonnes

In 2012, the Ivry-Paris XIII incineration unit was back to full availability following the completion of works to extend its operating life. This resulted in a 7% increase in the tonnage of waste recovered into energy.



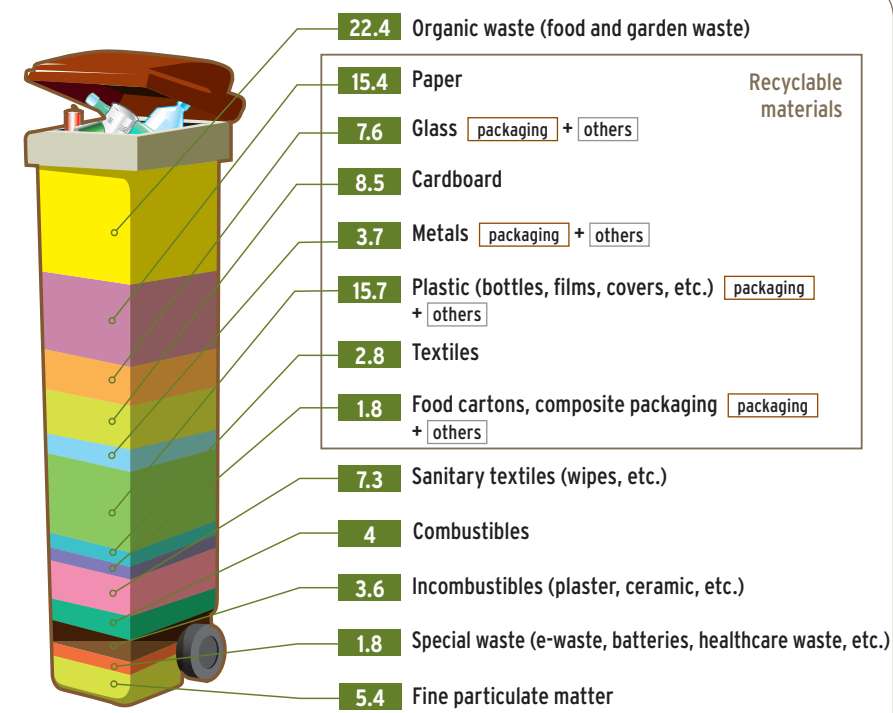
■ New urban integration in Saint-Ouen

Having set up in the eco-district of the Docks, Syctom's waste energy recovery centre in Saint-Ouen will move from an industrial setting to an urban setting and sit alongside housing, shops and offices. It will integrate the central vacuum unit of the district's future household waste pneumatic collection network in accordance with the syndicate committee's decision of June 2010. In order to develop the site in step with the town's project, an architectural and landscape integration programme was carried out, including a study on limiting the impact of skip transportation. Presented to Saint-Ouen officials, it plans for the following in particular: access for the waste collection vehicles (entrance/exit) via the Seine quay; creation of a landscaped park along Rue Ardoin; establishment of a common access ramp to the skip garage, planned by the City of Paris, and to the factory (removal of current access ramp); reconstruction of the clinker storage area with a quality and innovative architectural treatment; automated conveying of clinkers to the Seine quay for removal by barge; the reorganisation of logistical spaces on the site.

Studies were also conducted to identify the technology to keep with a view to replacing a heat exchanger inside the smoke-scrubbing system, with breakdown leading to decreased availability of the factory.

BREAKDOWN OF A RESIDUAL HOUSEHOLD WASTE BIN IN %

Despite an uptake of waste sorting by households, more than 40% of the waste put in the standard bin is still recoverable. Some of it could have been placed in glass recycling bins, selective collection bins (papers, food cartons, plastic bottles, etc.), while some could have been brought to a voluntary drop-off point (clothing, syringes, etc.) or brought to a shop (batteries, small electrical appliances, low consumption bulbs, etc.). This has led Syctom to try and boost sorting through awareness campaigns. The fermentable part of household waste (organic waste, paper, cardboard and sanitary textiles) still represents over half of the waste in standard bins (54.8%).



Romainville/Bobigny: a renewed project after one year of active consultation

Although the sorting-methanisation project in Romainville/Bobigny obtained operating authorisation in 2011, Syctom wanted to strengthen consultation with residents, local officials and associations in order to clarify the challenges involved in the project. Following a public meeting organised at the beginning of 2012 by the Est Ensemble agglomeration community, Syctom undertook significant commitments:

A 6-MONTH SUSPENSION OF ACTIVITY

A 6-month suspension of activity was decided upon so as to prolong dialogue and give time for additional reflection. A weekly exchange and information space was opened in Bobigny. A project blog was put online and an information letter was distributed to inhabitants of the four most affected municipalities. A steering committee was created. Under the aegis of Est Ensemble, it shows the guarantee of consultation. Under its supervision, an audit was carried out by independent experts to respond to the public's questions: INERIS carried out a critical analysis of the existing impacts and dangers studied. EREP undertook an environmental analysis of the mechanical-biological treatment process, looking particularly at the feedback from similar installations. The audit reports were presented during the public meeting.

IN AGREEMENT WITH EST ENSEMBLE

In December, Syctom reorientated its project, taking Est Ensemble's 10 requests into account, in addition to the recommendations from the audit. It decided to downscale the size of the project; to encourage local authorities in the catchment to reduce their waste at source and collect organic waste in their area; to carry out modifications to the digesters to reinforce safety; to take additional measures, particularly in terms of control and monitoring, to guarantee operating conditions; and to put in place technical solutions and an additional monitoring system to avoid odour nuisances to residents, in respect to employee working conditions.

PURSUING CONSULTATION

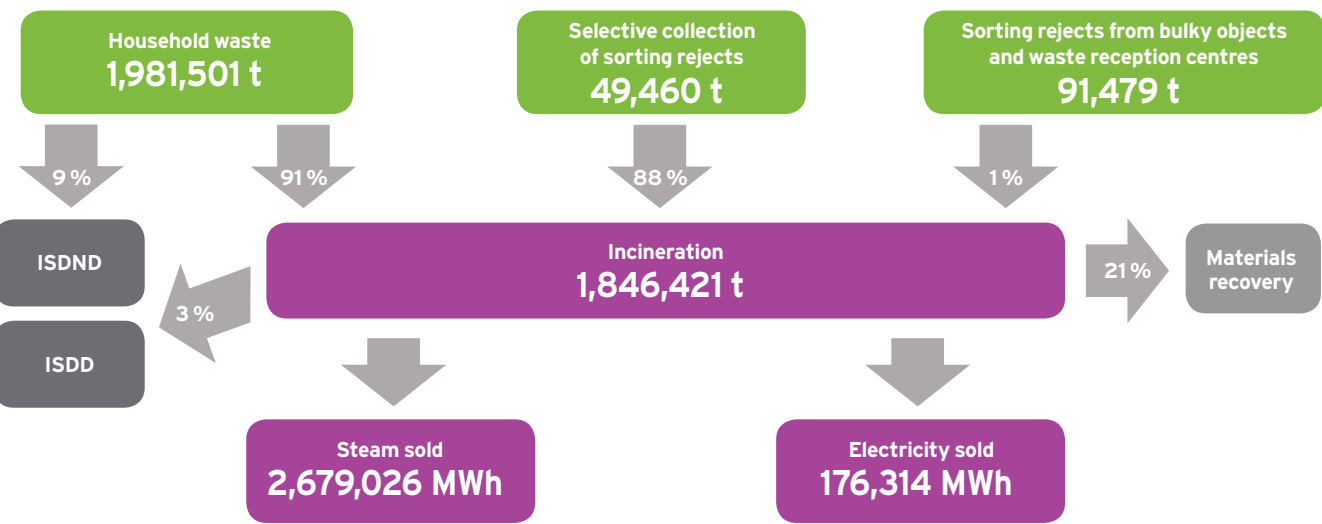
In order to follow a consultation approach, Syctom suggested maintaining the steering committee and signing inter-municipal environmental quality guidelines with Est Ensemble. Syctom asked the state for the establishment of a Site Monitoring Commission, presided over by the prefect and including residents, officials, associations and centre employees.

As well as a household and organic waste sorting-methanisation unit, the project in Romainville/Bobigny will include the renewal of a selective collections sorting unit, a bulky objects pre-sorting unit, and a river platform on the Ourcq canal. It received constant support from ADEME, which gave it a €10 million subsidy. It also benefited from a €10.7 million subsidy from the Paris region.

In total, 79% of waste received by Syctom was incinerated.

ENERGY RECOVERY CHANNELS

The steam produced by the incineration of the waste is sold to the CPCU (Paris urban heating company). Sent by underground pipes to buildings served by the CPCU, it is transformed into hot water to feed radiators and heat water in the equivalent of 320,000 homes. The electricity produced is partly used to operate the sites and partly sold to EDF. The sale of steam and electricity reached €7.2 million in 2012.



Project at Blanc-Mesnil/Aulnay-sous-Bois: launching the consultation

Financed in equal shares with the Wastewater Authority for the Paris Area (SIAAP), at a pre-tax amount of €75 million, the planned centre at Blanc-Mesnil/Aulnay-sous-Bois concerns the co-methanisation of silt from the wastewater treatment plant Seine-Morée currently under construction (10,000 tonnes/year of dry material) with organic waste first collected from large producers (5,000 tonnes/year) and then from the inhabitants of the five municipalities in the catchment area (10,000 tonnes/year). The project is adaptable to take into account changes in organic waste tonnage. The installation will produce compost in compliance with standard NFU 44-095. It will also serve the transfer centre for residual household waste collected in the sphere, adapting as the year progresses to the household waste volumes and Syctom's incineration capacities, as well as avoiding the recourse to landfill.

Syctom and SIAAP presented Blanc-Mesnil inhabitants with the schedule for the project in 2012. To facilitate exchange with inhabitants and responds to their questions, a dedicated page was created on the website www.Syctom-paris.fr. As part of the competitive dialogue procedure, the five remaining groups from the call for tender were asked on three occasions to present their offer in detail. This detail included: management of industrial risks and odours; performance of biogas and compost production; how the project would be affected by regulation changes relating to compost and liquid waste; architectural choices; HQE approach; professional integration; economic potential. The installation is planned to be in service in 2018.

HIGH ENVIRONMENTAL QUALITY

The industrial premises with which Syctom is equipping itself are designed following High Environmental Quality (HQE) criteria. The installations are studied to improve the working conditions of the operating agents, in terms of hygiene, quality of air and professional comfort (physical, thermal, visual, acoustic, olfactory). In order to conserve natural resources, recyclable materials are favoured for construction. They are also systematically integrated in energy management projects (controlling energy consumption, using renewable energies) and the control of water consumption (recovering and reusing rainwater, measures for saving drinking water).

METHANISATION: ORGANIC PROCESSING

Methanisation reproduces, and intensifies, the decomposition cycle of plant waste. It enables double recovery of biodegradable waste (food waste and green waste, non-recyclable paper and cardboard, sanitary textiles):
→ as energy: the biogas released during fermentation is recovered to be transformed into heat, electricity, bio-fuel or reintroduced into the natural gas distribution network.
→ as compost: methanisation waste (fermentation residue) is stabilised to create a clean organic product to enrich the soil with humus.

The green energy production channel

Syctom has been analysing how to implement a biological treatment for waste since 2000. Biodegradable waste makes up 55% of residual household waste and methanisation is the only alternative that enables the public authorities' incineration and landfill reduction targets to be met. With three centre projects partially or fully dedicated to organic recovery, Syctom wants to develop an ecological treatment channel for organic waste. The organic waste in question would come from residual household waste and that which is sorted at source, and its treatment would produce local renewable energy, helping reach the target of 23% renewable energy consumption in France by 2020.

All the methanisation projects that Syctom is involved in are coherent with a community logic, with waterway and rail links reducing the transport of waste via roads in the Paris region. This improves the environmental overview of household waste treatment in the greater Paris area. ADEME estimates that by 2023 the implementation of all of Syctom's methanisation projects will lead to a reduction of 22% in the quantities of incinerated waste and waste sent to landfill compared with 2009, and improve the production of alternative energy.

CONTROLLING ATMOSPHERIC EMISSIONS

The atmospheric emissions of Syctom's incineration units with energy recovery are controlled both by the operator (self-monitoring) and by external laboratories; these controls are not only regulatory but form part of Syctom's quality control process.

ANALYSING WASTE

- Throughout the year, the operator controls the pollutant content in the smoke in the chimneys. It carries out real-time analysis of the particles, nitrogen oxides, hydrochloric acid, sulphur dioxide, carbon monoxides and carbon compounds (TOC). It continuously takes samples of the dioxins and furans which it then sends for analysis to an external laboratory once a month. The analysis data is sent regularly, every month or quarter depending on the authorisation of usage, to the regional and inter-département department for the environment and energy. This department, the DRIEE, can also carry out spot checks on site.
- Twice a year for Ivry-Paris XIII and Saint-Ouen and four times a year for Isséane, the operator must call on a state-approved laboratory to analyse the pollutants listed in the regulation (continuously controlled pollutants, dioxins-furans, heavy metals and hydrofluoric acid).
- Also twice a year, in addition to the two regulatory checks, Syctom calls on a state-approved laboratory to analyse the pollutants listed in the regulation.

As well as being sent to the DRIEE, all of this data is communicated to the host municipalities and residents of the centres, to the site-monitoring commission (CSS), the committee for monitoring the environmental quality guidelines, and the watchmen. It is also available in the public information file provided each year to the prefecture and can be consulted on the website www.syctom-paris.fr.

MONITORING FALLOUT

The environmental impact on the atmospheric emissions of dioxins/furans and heavy metals is also the subject of a regulatory monitoring programme. Owen-type gauges – which collect rainwater – are installed twice a year at places where plumes of smoke fallout are supposed to be the greatest and on key points to measure the degree of pollution near the incineration units. The positioning of the gauges was determined using a mathematic model. This programme follows the method recommended by INERIS*.

In parallel to this regulatory monitoring, Syctom carries out occasional bio-monitoring campaigns to improve knowledge of the environmental impact of its installations.

External laboratories measure the impregnation of dioxins/furans and heavy metals in moss and lichen removed from their environment. Costing €47,000 annually, this monitoring programme aims in particular to reinforce the monitoring conducted by gauges. No specific impact of Syctom's incineration units has been brought to light on these three sites through these campaigns.

* National Institute for Industrial Environment and Risks.

LANDFILL

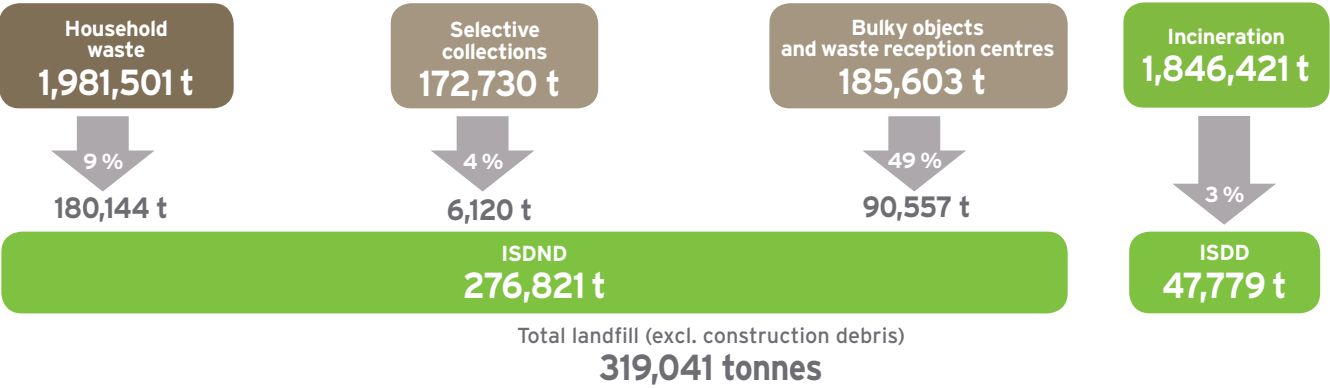
LANDFILL AS A LAST RESORT

In accordance with the hierarchy of processing methods set by the 2008 waste directive and in respect of a community principle, Syctom only uses landfill as a last resort, when waste cannot be recovered as energy due to insufficient capacities and residual waste, i.e. waste for which there is currently no viable recovery solutions in technical, economic or environmental terms. Belonging to this category are smoke scrubbing residues from incineration (REFIOM) and waste whose recyclable material has already been extracted (mainly sorting rejects from bulky object collections). Exercising its public service mission in a very dense urban zone, Syctom does not have any landfill installations for hazardous or non-hazardous waste (ISDD or ISDND). It uses private sites outside its area of intervention that, certified in accordance with ISO 14 001, present guarantees in terms of controlling environmental risks.

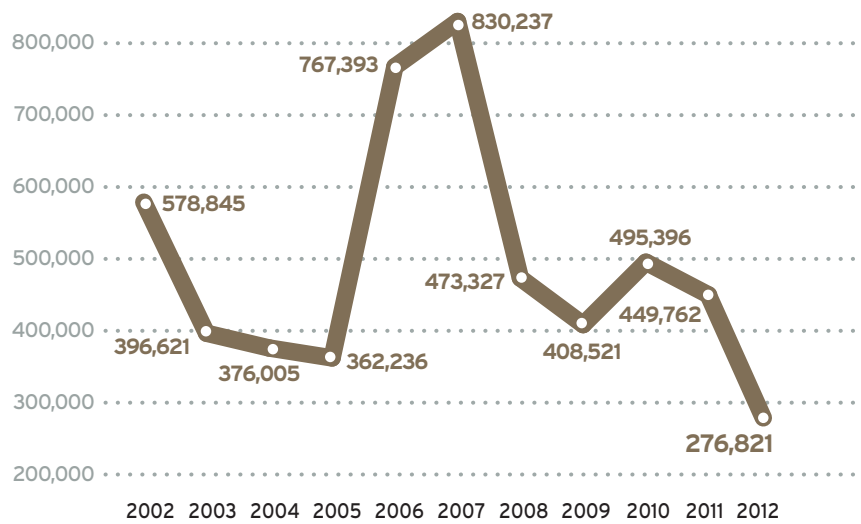
In 2012, the reduced quantity of waste collected and the increased availability of Syctom's energy recovery units led to a 38% reduction compared with 2011 of the waste buried in ISDND, amounting to 276,821 tonnes (11% of the waste treated in Syctom's sphere, including glass).

LANDFILL CHANNELS

Residual household waste and sorting rejects, which cannot be recovered into energy due to lack of capacity, are stored in ISDNDs, which are reserved for non-hazardous waste. These installations meet strict regulations in terms of the waterproofness of the sub-soil, the recovery of biogas and leachates, the drainage of rainwater and the monitoring of the quality of the water table. Ash and smoke-scrubbing residues from household waste incineration (REFIOM) concentrate the pollutants contained in the waste or generated during combustion. They are processed to make them inert before being buried in a site for hazardous waste. They are stocked in waterproof cells which are filed to ensure their traceability. Furthermore, 21,319 tonnes of construction debris from bulky objects and waste reception centres were deposited in waste reception centres reserved for inert waste.



CHANGE IN WASTE STORED IN ISDND in tonnes



In total, 11% of waste treated in Syctom's sphere was buried in ISDND and ISDD.



STRONG FOUNDATIONS FOR THE FUTURE

€-1.1
million in
member local
authorities'
contribution

+18 %
in sale of products
(materials and
energy)

-5 %
in investment
and operating
expenditure

€29.5
million
Amount of Syctom's
contribution to
selective collection

2 %
Payroll as a
percentage
of operating
expenditure

€-26.7
million debt
reduction

Linked to the decreased tonnage of household waste, the continuous management of expenditure allowed for a €1.1 million reduction in the overall fees total (€286.2 million in 2012), thus easing the pressure on local taxes.

With Syctom's large-scale projects in a phase of studies, competition dialogue and consultation, equipment expenses (excluding studies and sites) decreased in comparison to 2011 to come to €16 million.

For the fourth consecutive year Syctom was able to continue its debt reduction and increase its self-financing level. In addition to strict management methods, several factors contributed to this virtuous development: the reduction in waste production; the break from investments; reduced operating costs; increased income from electricity and steam sales; and increased support from eco-organisations.

Having consolidated its financial position, Syctom can plan the implementation of its programme for urban ecology facilities on solid foundations.

BUDGET

Fees: -€1.1 million

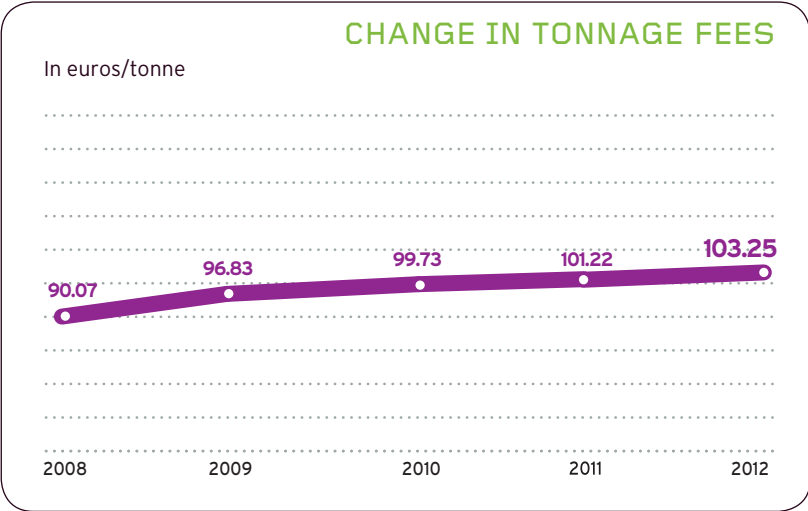
In 2012, fees amounted to €7.17 per person (compared to €7.06 in 2011, an increase of 1.5%), and €103.25 per tonne deposited (compared to €101.72 in 2011, a 1.5% increase). The contribution of each municipality is calculated pro rata to its population and the quantity of waste it provides to Syctom.

Income from fees amounted to €286.2 million in 2012, compared to €287.3 million in 2011, or a €1.1 million reduction, under the combined influence of the curbed progression of the fees level and a reduction in tonnage collection, particularly bulky objects (-11%) and household waste (-2%).

Income from fees covered 73% of the Syndicate's operating income, instead of 75% in 2011. This slight decrease comes from the progression of steam sales and the increase in eco-organisation support.

Sale of products: + 18 %

From a total of €51.8 million, the income from steam and electricity sales and materials recovery has progressed by 18%, or +€7.2 million. With the completion of the works to extend the operating life of the Ivry-Paris XIII incineration unit, which had caused technical stops in previous years, the unit was able to function at full capacity in 2012. The incomes linked to materials recovery remained relatively stable due to the slight decrease in the tonnes of selective collection and and, despite the fluctuation in prices, the slight increase in the average sale price of secondary materials.



Support from eco-organisations: +11%

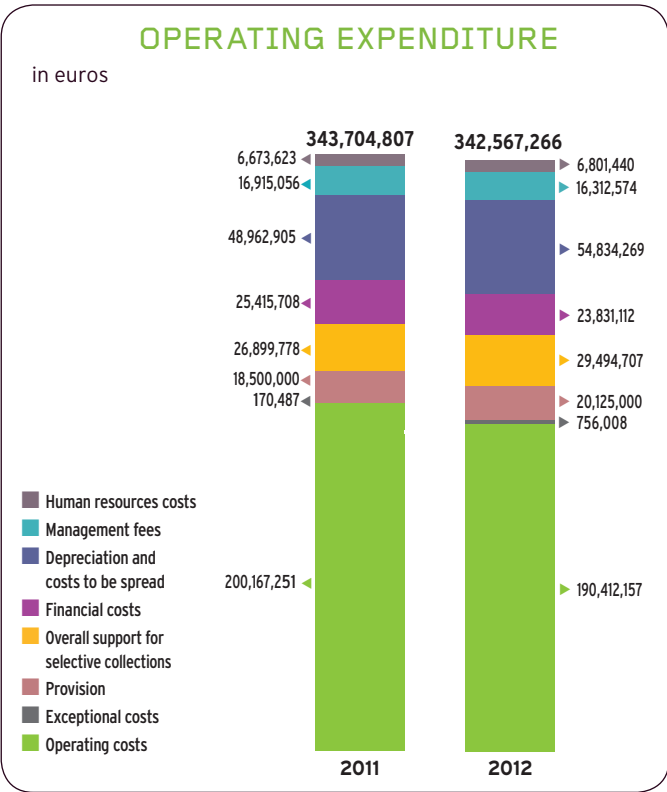
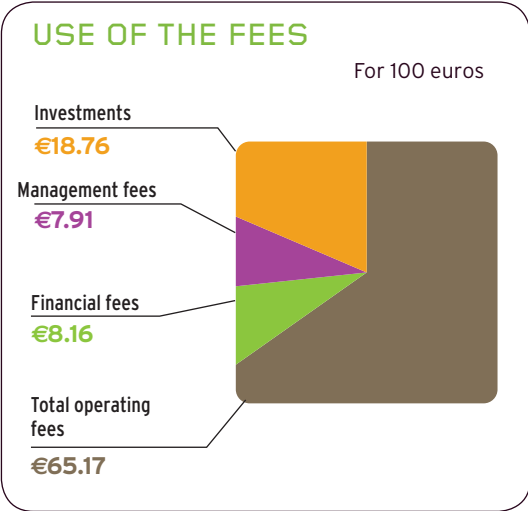
Support from eco-organisations (mainly Éco-Emballages and ÉcoFolio) increased by €3.3 million (€32.4 million in 2012 from €29.2 million in 2011). The increase in support from Éco-Emballages is linked, following mutualisation throughout Syctom's sphere, to the application of Barème E, which is particularly effective in promoting the performance of recycling close to reaching the Grenelle objectives (75% of recycling), as well as the improved performance of energy recovery. The support given by ÉcoFolio also increased, from the methods of calculation linked to greater national deposits of paper.

Operating expenditure: - 5%

Close to €190 million, expenditure on operation represented 56% of operating costs. They reduced by €9.8 million compared to 2011, taking into account the drop in tonnage of household waste and the optimisation of incineration capacities at Ivry-Paris XIII, and despite the raising of the reduced VAT level from 5.5% to 7% on 1 January 2012 and the additional costs from the higher TGAP tax (+€7.8 million). For the second consecutive year, the application of a new operating contract at the Ivry-Paris XIII unit brought about substantial savings of €13 million compared to the previous contract, enabling Syctom to consolidate its financial position.

Support for selective collections: +10%

Syctom's pro-active policy and the implementation of Barème E in place since 2011 are behind the significant progression in support given to selective collections, which rose from €26.9 million in 2011 to €29.5 million in 2012, or +€2.6 million. In 2012, Syctom continued its financial efforts in favour of support for selective collections to the sum of €125.89 per incoming tonne. Because of Syctom's commitment to selective collection it gave member local authorities a large proportion of the additional financial aid from Éco-Emballages and the income from glass over a whole year (compared to half a year in 2011).



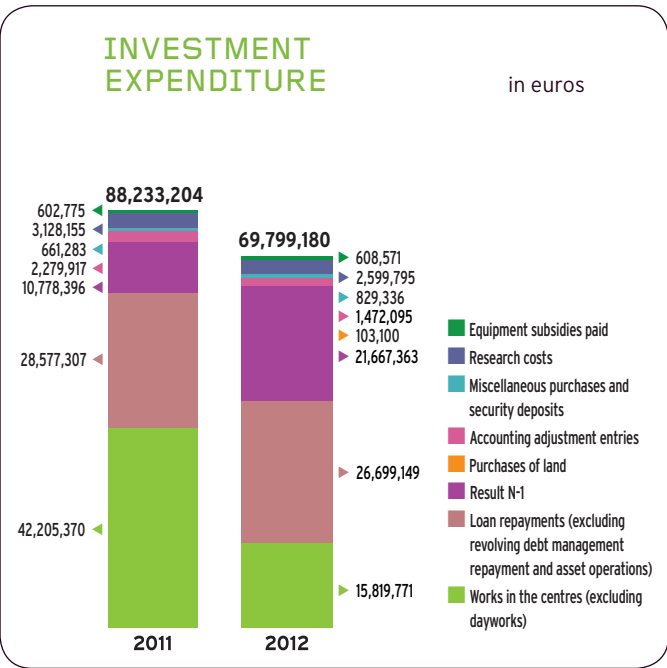
OPERATING INCOME

in euros

Administrative account	2011	2012
Contributions from member local authorities	287,245,439	286,181,696
Allocations, subsidies (including Éco-Emballages and Éco-Folio) and contributions	29,176,367	32,440,372
Marketing of products and other income from ongoing management	44,006,539	51,878,413
Reversals of provisions	-	5,835,000
Exceptional income, management and other	5,038,554	3,511,622
Result N-1	19,781,340	10,162,232
Total operating income	385,248,239	390,009,335

Human resources costs: 2% of operating expenditure

With a staff comprising 119 agents as at 31 December 2012, the payroll has remained stable. The payroll still represents 2% of Syctom's operating costs, or €6.8 million in 2012.



INVESTMENT INCOME

in euros

Administrative account	2011	2012
Loans, including debt management and excluding asset operations	-	-
Subsidies	3,253,600	58,319
VAT compensation fund	5,544,294	13,721,362
Depreciation of assets + costs to be spread	48,962,905	54,834,269
Allocation of the operating income N-1	8,000,000	31,381,200
Other accounting adjustment entries and contributions for third parties	805,043	306,421
Reserves and result N-1	-	-
Total investment income	66,565,841	100,301,571

Self-financing: 86% investment income

Depreciations amounted to around €55 million in 2012. With an increase of around €6 million, they represented 16% of operating costs (14% in 2011). This progression is mainly a result of the bringing into service of equipment linked to the extension works at the Ivry-Paris XIII treatment unit, which were completed at the end of 2011.

Along with the partial allocation of the 2011 operating income and additional self-financing, this high level of amortisation brings the total rate of Syctom's self-financing to 86% of investment income.

Investments: in consultation

and study phase

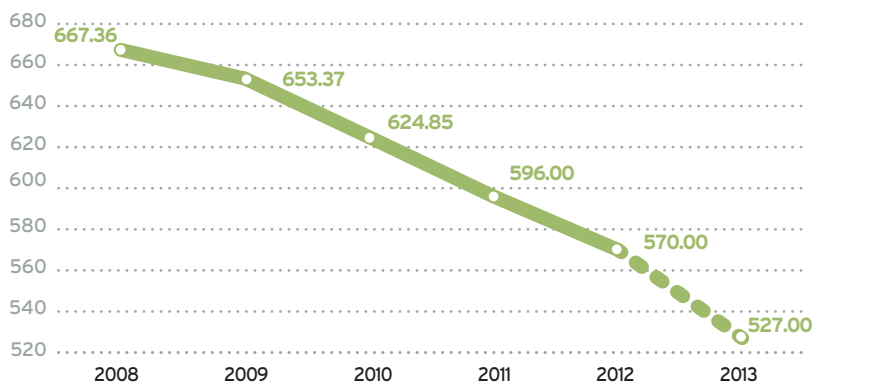
For the second consecutive year, Syctom's equipment expenditure measured a net reduction. Equipment expenditure amounted to €16 million, or a drop of 62% compared to 2011 (€42 million). The completion of works on the Ivry-Paris XIII incineration unit to extend its operating life (€62.2 million including tax over the 2008-2012 period) explains this development, as well as continuing studies, which are less financially consuming, relating to Syctom's investments projects. These projects include: competitive dialogue for the transformation of the Ivry-Paris XIII centre; consultation and auditing for the Romainville/Bobigny centre; studies on the Blanc-Mesnil/Aulnay-sous-Bois methanisation centre and Paris XVII sorting centre; and studies on the urban integration of the energy recovery centre in Saint-Ouen.

Continuing debt reduction: -€26.7 million

On 31 December 2012, the stock of Syctom's debt amounted to €569.6 million instead of €596.3 million at 31 December 2011 (-4%). This amount reduced for the fourth consecutive year, bringing the total debt reduction to €98 million since 2008. Combined with a significant progression in self-financing since 2009, the reduced investment requirements in comparison to the 2003-2009 period meant Syctom did not have to take out any loans in 2012.

On 31 December 2012, the average rate of interest of Syctom's debt was 4.01%, compared to 4.08% in 2011. This relative stability is due to the fact that fixed rate loans represent 66% of its debt. Syctom's financial charges went from €25.4 million in 2011 to €23.8 million in 2012 - a €1.6 million drop (-6%) due to the reduction in the outstanding debt and the historically low variable rates in 2012.

CHANGES IN SYCTOM'S DEBT



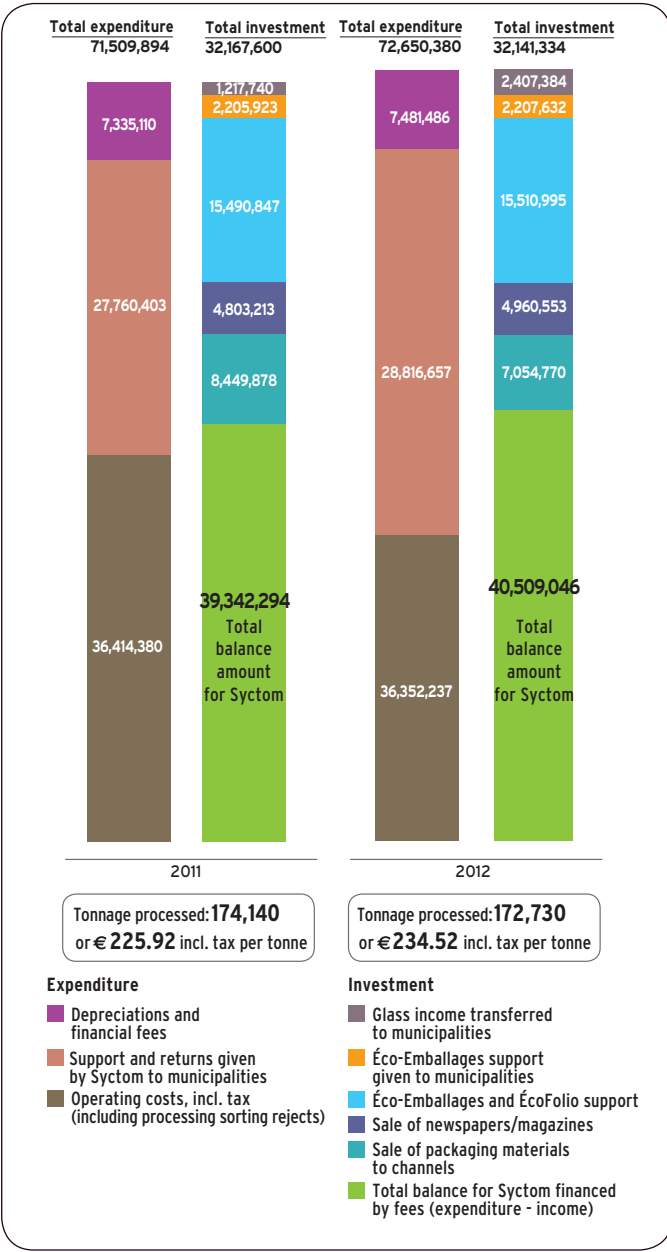
INVESTMENT PROGRAMME PER SITE

In millions of euros excl. tax					
Site	Type of programme	Operating period	Work financed in 2011	Work financed in 2012	Total investment
Isséane	Treatment centre	1998-2012	2.46	1.55	593.00
Saint-Ouen	Bringing up to standard and ongoing improvements	2011	1.40	1.32	1.40
Ivry-Paris XIII	Bringing up to standard and ongoing improvements	2011	0.55	0.23	0.55
Isséane	Bringing up to standard and ongoing improvements	2011	0.81	0.50	0.81
Ivry-Paris XIII	Works to extend operating life of factory	2008-2012	21.08	4.10	62.2
Ivry-Paris XIII	Repurchase of TIRU detached parts stock	2011	0.25	0.00	0.25
Sevran	Selective collection	2003-2012	0.04	0.57	16.69
Paris XV	Selective collection	2004-2012	3.71	0.68	30.65
Nanterre	Bringing up to standard and ongoing improvements	2011	0.27	0.99	0.27
Romainville	Selective collection	2011	0.00	0.00	0.00
Romainville/Bobigny	Sorting/methanisation centre	2005-2017	4.02	2.25	276.31
Blanc-Mesnil/Aulnay-sous-Bois	Recovery centre for organic waste and silt from wastewater treatment	2006-2018	0.77	0.11	45.20
Saint-Denis	Planned	2007-2012	0.02	0.05	1.33
Ivry II	Multi-channel centre	2007-2023	2.23	1.97	860
Sevran	Bringing up to standard and ongoing improvements	2011	0.03	0.30	0.03
Saint-Ouen	Urban integration	2011	0.02	0.05	0.02
Total			37.66	14.67	

COST OF PROCESSING
SELECTIVE COLLECTIONS

In current euros
(excluding transfer of glass and including processing rejects)

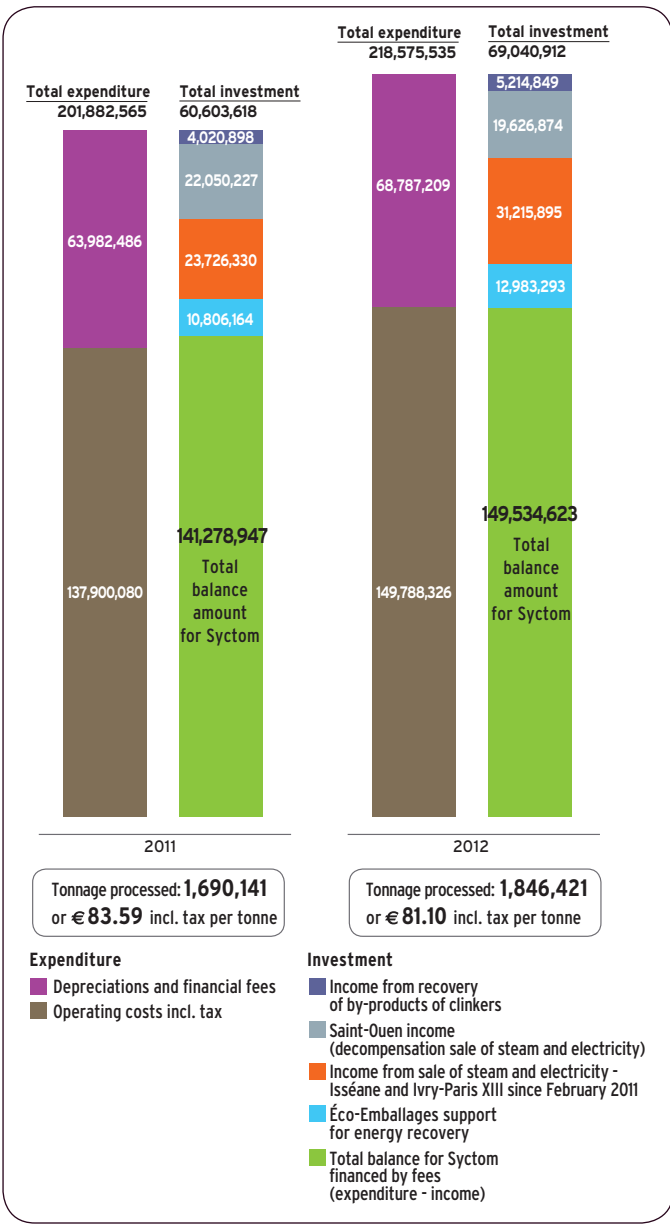
The net cost of processing SC rose from €86.17/t in 2011 to €94.41/t in 2012, or an increase of 10%. This increase is principally down to the significant reduction in income from materials recovery (due to the large drop in sale prices and the slight decrease in quantities) and a rise in expenditure due to inflation and the VAT increase, despite the reduction in tonnage. As such, the net budgetary cost for SC including support given to municipalities has followed the same trend and risen from €225.92/t in 2011 to €234.52/t in 2012.



OVERALL COST OF
INCINERATION
WITH ENERGY RECOVERY

In current euros

The cost of treatment per tonne of incinerated and recovered waste has been reduced by 3%: €81.10/t compared to €83.59/t in 2011. This reduction is due to the increase in tonnage incinerated, particularly at the Ivry-Paris XIII centre, bringing about a reduction in waste sent to landfill. The fixed charges of the installations are paid off by an increased amount of tonnage and are therefore less of a financial burden. As such, expenditure has only increased by 8% despite inflation and increases in VAT and the TGAP tax, with tonnage increasing by 9%, whilst income (from energy recovery, material recovery and support from eco-organisations) rose by 14%.



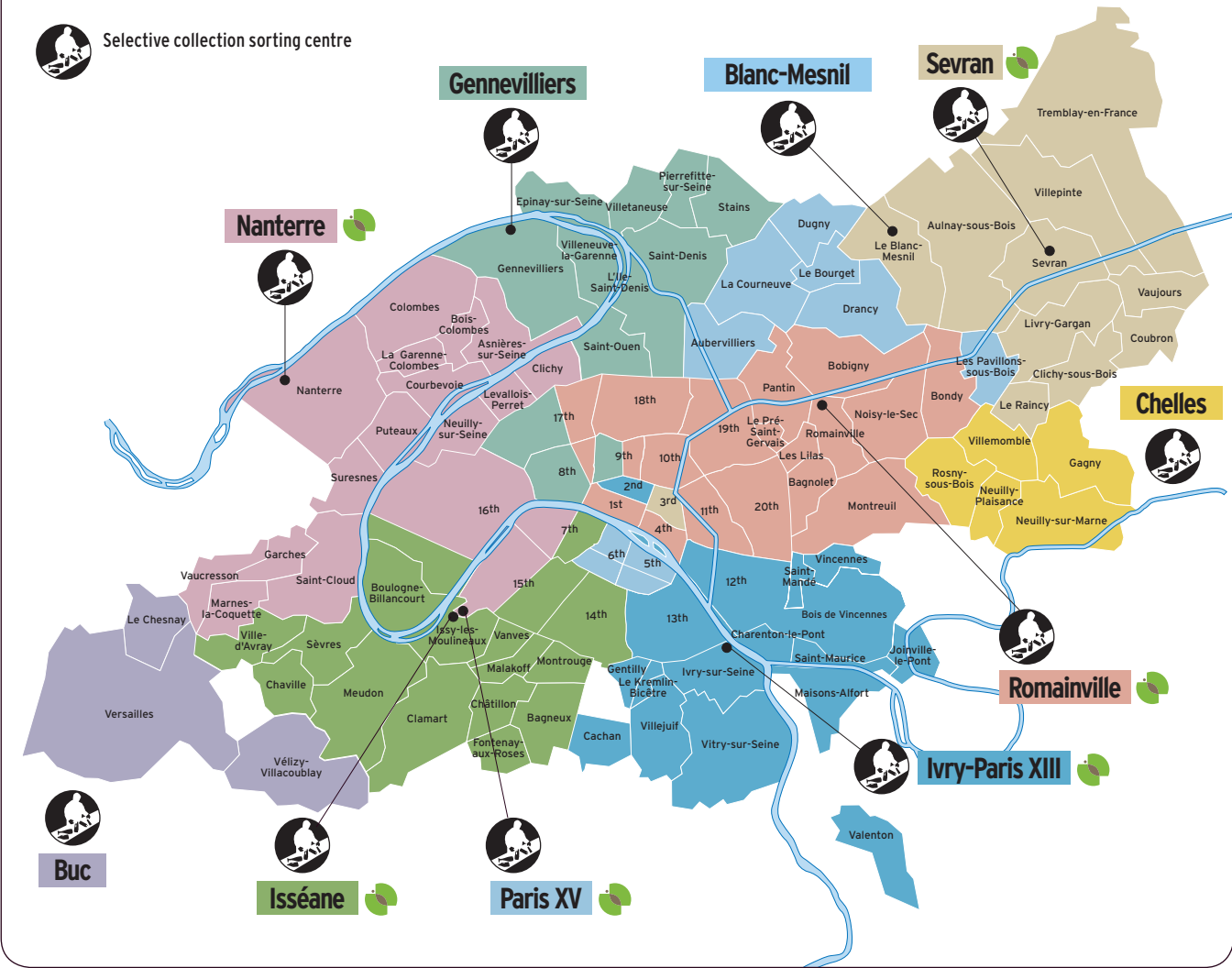
COSTS OF PROCESSING BULKY OBJECTS AND TECHNICAL LANDFILL

The cost of processing bulky objects (BO) increased. It amounts to €104.10 incl. tax per tonne compared to €100.02/t in 2011. This change is a result of the combined impact of inflation, the rise in VAT and the reduction of material income from bulky objects. The cost of landfill increased by 6%. The cost was €98.00 incl. tax per tonne in 2012, compared with €92.20 incl. tax in 2011, due to the accumulated rises in the TGAP tax, VAT and the revision of prices.

DETAILED OPERATIONS OVERVIEW

2013 SELECTIVE COLLECTION CATCHMENT AREAS

The selective collection sorting centres mobilised by Sycotm in 2013 and their catchment area



SELECTIVE COLLECTIONS

Centre	Tonnage received	Tonnage sorted	Upstream stock variation	Downstream stock variation	Tonnage recovered	Operator
Ivry-Paris XIII	30,023	29,327	139	0	19,658	SITA
Romainville	36,929	30,145	590	0	18,470	Urbaser Environnement
Nanterre	26,763	25,396	897	0	18,726	Veolia Propreté
Paris XV	16,597	16,054	521	320	12,271	Coved
Isséane	23,301	23,055	241	75	17,913	TSI
Sevrans	10,341	10,023	307	50	7,632	Veolia Propreté
Gennevilliers	14,734	14,814	- 85	0	10,645	SITA
Buc	6,936	6,824	112	0	4,623	Nicollin
Blanc-Mesnil	8,765	8,683	82	0	6,303	PAPREC
Chelles	5,625	5,387	235	0	4,006	Généris
Total	180,000	169,707	3,023	445	120,248	

RECYCLABLE MATERIALS RECOVERY CHANNELS

Material	Tonnage recycled	Channel	Future	Transport
Newspapers	55,463	UPM-Chapelle Darblay paper mill in Grand-Couronne (76)	Newspaper	River (barge or containers)
EMR (brown cardboard + thin cardboard packaging)	33,347	Europac (76), Sacia (02), Emin Leydier (10)	Brown cardboard	40% by river transport (barge), remaining amount by road
Paper mix	17,575	Various paper factories in France and Europe	Cardboard, tissue	Road
Food cartons (ELA)	1,019	Georgia Pacific paper mill (17) and Nova Tissue (88)	Toilet paper and kitchen roll	Road
Plastic PET bottles	6,444	France Plastiques Recyclage factory in Limay (78)	Granules used to make bottles	River transport from Gennevilliers
Plastic HDPE bottles	2,686	Neufchateau factory (88) and Lunen (D)	HDPE products (cleaning pipes, watering cans, etc.)	Road
Plastic pots and punnets*	54	Additional sorting at the Blanc-Mesnil Paprec centre then recycling in France according to the resins	In development	Road
LDPE films and covers*	196	Régéfilm factory (64)	Plastics bags and bin bags	Road
Aluminium from selective collections	162	Regeal-Affimet factory in Compiègne (60)	Aluminium used to cast various parts (particularly in the car sector)	Road
Aluminium from clinkers	2,980	Galloo factory in Halluin (Belgium)	Aluminium used to cast various parts (particularly in the car sector)	Road
Steel from selective collections	2,434	Arcelor factory in Dunkirk (59)	Steel products	Road
Steel from clinkers	36,423	Large scrap metal: Galloo Île-de-France in Bonneuil-sur-Marne (94) Small scrap metal: Galloo Métal or other subcontractors (Belgium and 59)	Steel products	Road – Rise in river transport between Bonneuil and Halluin

* Recycled plastics from the experiment to extend the scope of plastic packaging sorting carried out at Sycotm's Sevrans sorting centre since March 2012.

BULKY OBJECTS

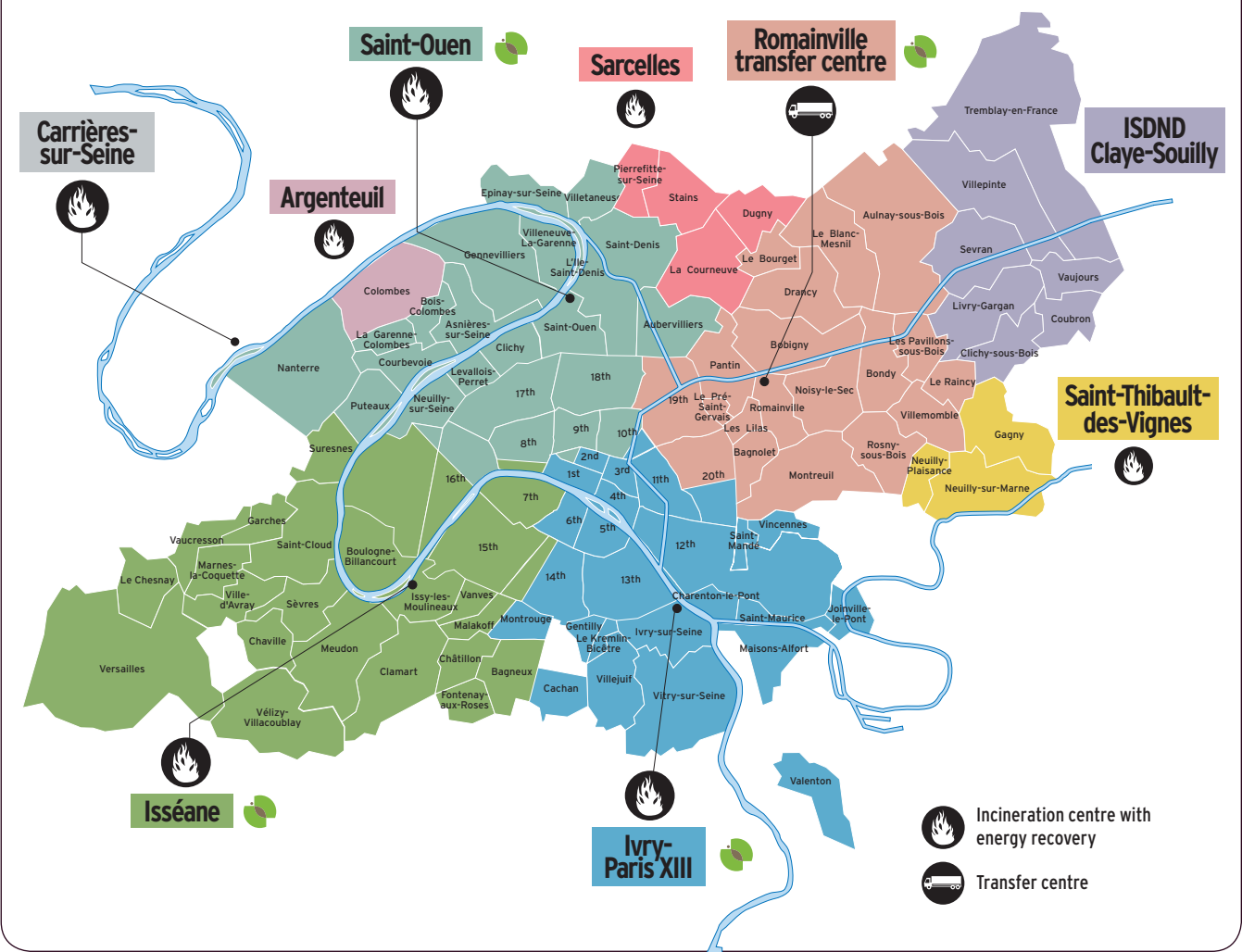
Bulky object sorting centres	Tonnage received	Tonnage recovered	Operator
Pierrefitte	15,584	7,800	CDIF
Claye-Souilly	9,413	4,233	REP
Gennevilliers	26,259	14,497	PAPREC
Gennevilliers	21,117	10,756	SITA
Gennevilliers	5,518	2,736	REP
Villeneuve-le-Roi	6,080	3,205	PAPREC
Buc	6,618	3,627	Nicollin
Buc/Châtillon	5,563	2,985	Nicollin/Veolia
Bulky object transfer centres	Tonnage received	Tonnage recovered	Selective collection
Ivry	12,842	5,769	Claye-Souilly REP
Noisy	19,608	8,828	Claye-Souilly REP
Chelles	7,189	3,233	Claye-Souilly REP
Châtillon (Veolia Propreté)	3,541	1,814	Claye-Souilly REP
Ivry (SOFRAT)	31,748	15,687	Villeneuve-le-Roi (PAPREC)
Total	171,088	85,174	

WASTE RECEPTION CENTRES

Centres	Waste reception centres		Operator
	Tonnage received	Tonnage recovered	
Romainville	11,837	3,965	Urbaser Environnement
Ivry-Paris XIII	5,907	4,984	SITA
Total	17,744	8,949	

2013 RESIDUAL HOUSEHOLD WASTE CATCHMENT AREAS

Syctom divides its sphere into collection zones known as catchment areas. Associated with a processing centre, each area is designed to limit the distance covered by skips - their range is 5 to 6 kilometres as far as residual household waste is concerned. In the event of centre shutdown (for works for example), Syctom divides up the catchment areas following the same logic of optimising processes with regard to the processing capacities available.



RESIDUAL HOUSEHOLD WASTE

Centre	Tonnage incinerated	Recovery					Operator
		Steam sold (MWh)	Electricity sold (MWh)	Clinkers (tonnes)	Ferrous (tonnes)	Non-ferrous (tonnes)	
Ivry-Paris XIII	688,420	98,620	60,505	122,570	13,810	807	IP13
Isséane	459,945	524,942	69,020	83,501	7,122	894	TSI
Saint-Ouen	561,938	1,126,337	8,886	107,039	12,961	1,066	TIRU
Argenteuil	35,887	2,264	18,939	8,972	661	78	Novergie
Saint-Thibault-des-Vignes	36,127		11,826	7,616	792	94	Novergie
Carrières-sur-Seine	17,735	8,379	1,610	3,424	264	0	Novergie
Sarcelles	40,395	35,483	5,527	0	813	41	SAREN (Véolia)
TOTAL	1,840,447	2,679,026	176,314	339,939	36,422	2,979	

In tonnes

CONTROL OF ATMOSPHERIC EMISSIONS IN SYCTOM'S INCINERATION CENTRES WITH ENERGY RECOVERY (IN 2012)

Type of waste (Concentrations in mg/Nm³ to 11% of O₂)	Maximum emission values applicable since 28/12/2005 Ministerial order of 20/09/2002	Ivry-Paris XIII				Saint-Ouen				Isséane					
		February	April	August	October	March	May-June	August	November	February	March (Syctom)	July	August	November	December (Syctom)
Particles	10	2.2	5.4	0.8	3.6	1.4	1.9	3.7	0.7	1.3	0.5	2.0	0.4	0.5	0.4
Hydrochloric acid	10	2.0	2.6	1.5	1.0	0.7	1.1	1.3	0.9	4.0	2.4	2.6	2.1	1.1	3.3
Hydrofluoric acid	1	0.30	0.07	0.07	0.05	0.06	0.09	0.10	0.10	0.12	0.05	0.03	0.05	0.10	0.05
Sulphur dioxide	50	9	27	9	17	9	5	20	8	1	1	4	1	1	2
Nitrogen oxide	200 (80)*	59	43	55	54	61	61	61	57	45	42	30	30	21	30
Cadmium + thallium	0.05	0.001	0.007	0.002	0.006	0.001	0.004	0.001	0.003	0.001	0.002	0.0004	0.001	0.002	0.002
Mercury	0.05	0.006	0.001	0.0004	0.002	0.007	0.009	0.004	0.012	0.006	0.015	0.005	0.005	0.006	0.006
Antimony + arsenic + lead + chromium + cobalt + copper + manganese + nickel + vanadium	0.50	0.10	0.08	0.10	0.07	0.05	0.06	0.07	0.04	0.02	0.02	0.06	0.06	0.04	0.03
Dioxins and furans (in ng/Nm³)**	0.10	0.016	0.010	0.005	0.008	0.008	0.007	0.002	0.004	0.003	0.004	0.010	0.002	0.005	0.006

* The Paris region plan for the protection of the atmosphere has set the maximum emission value at 80 mg/Nm³ (the threshold set by the European directive is 200 mg/Nm³). This threshold is repeated in the authorisation order to operate in Ivry-Paris XIII and Saint-Ouen. At Isséane, the authorisation order delivered by the Prefect of the Hauts-de-Seine sets the threshold for emission of nitrogen oxides at 70mg/Nm³.

** ng/Nm³ = nanogram (billionth of a gram) per cubic metre.

NB: the values indicated are maximum values taking into account the threshold detection value when the real value is below the latter.

WASTE DUMPED IN LANDFILL INSTALLATIONS (in tonnes)

Non-hazardous waste transported to ISDNDs

ISDND Bouqueval (Syctom contract)	
Romainville waste reception centre rejects	4,988
HW transfer centre in Romainville	66,950
Bouqueval sub-total	71,938
ISDND Claye-Souilly (Syctom contract)	
HW direct contributions	62,953
HW in Romainville	24,953
HW HWIU in Ivry-Paris XIII	13,912
HW HWIU in Saint-Ouen	6,762
Isséane HW energy recovery unit	3,973
SC rejects and reclassification in Sevran	2,412
Claye-Souilly sub-total	114,965
ISDND sub-total (Syctom contract)	186,903
Centres (excluding Syctom contract)	
SC sorting rejects private contracts to EPR	696
Sorting rejects from B0	84,668
Private ISDNDs and HWIUs	3,650
Reclassifications of private centres	2
ISDND sub-total (excluding Syctom contract)	89,016
TOTAL ISDND	275,919

REFIOM transported to ISDDs

Villeparisis (Syctom contract) from	
HWIU in Ivry-Paris XIII	18,450
Isséane HWIU	11,336
HWIU in Saint-Ouen	12,435
Total ISDD	42,220

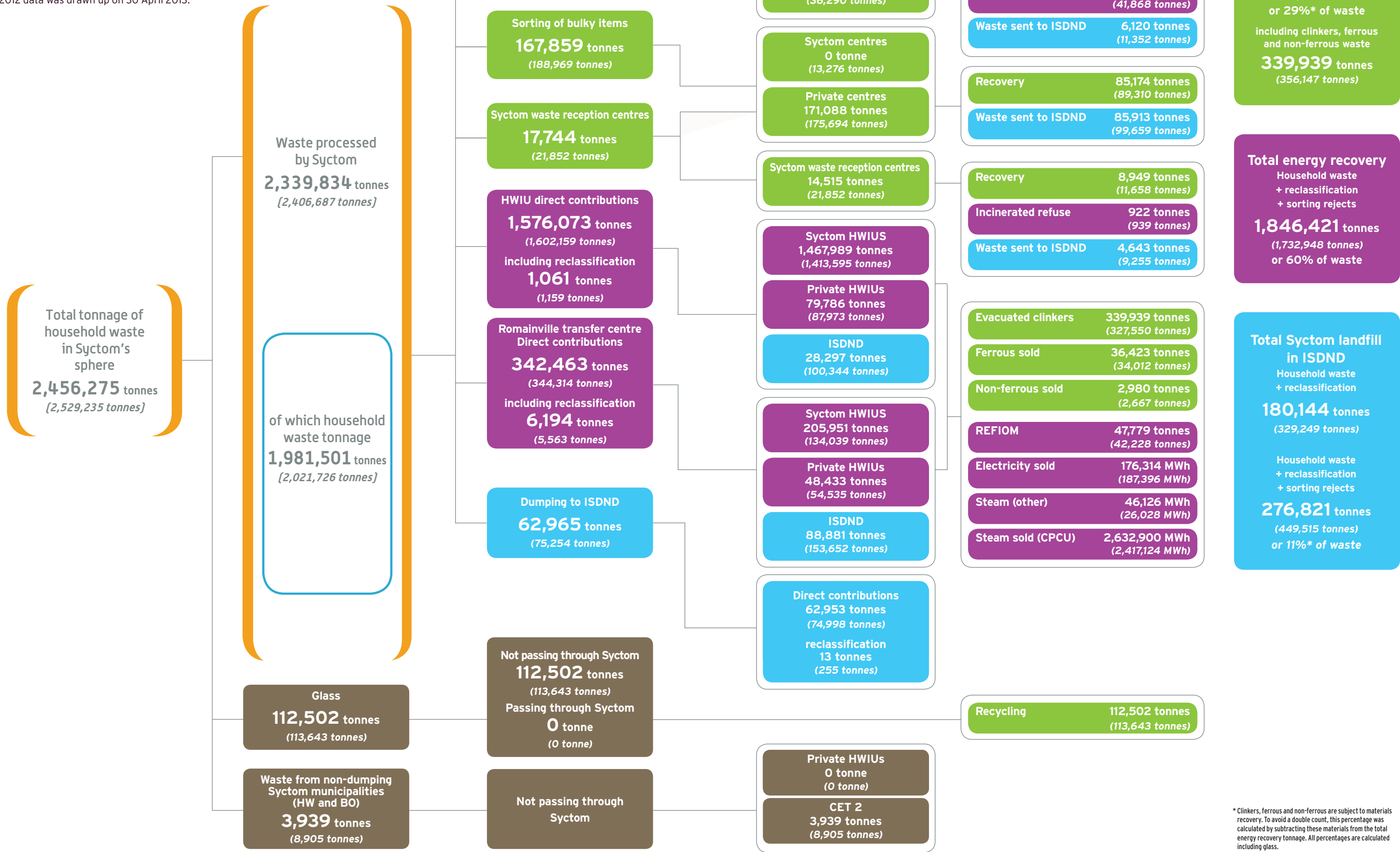
Inert waste transported to ISDIs

Claye-Souilly (Syctom contract) from	
Construction debris waste reception centre in Romainville	3,209
Construction debris waste reception centre in Ivry-Paris XIII	3,522
Claye-Souilly sub-total	6,731
Centres (excluding Syctom contract)	
B0 private market construction debris	14,588
Sub-total excluding Syctom contracts	14,588
Total ISDI	21,319

OVERALL TOTAL sent to landfill centre	339,459
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2012
OPERATING SUMMARY

Figures in brackets correspond to 2011 data.
The 2012 data was drawn up on 30 April 2013.



* Clinkers, ferrous and non-ferrous are subject to materials recovery. To avoid a double count, this percentage was calculated by subtracting these materials from the total energy recovery tonnage. All percentages are calculated including glass.

ANNUAL REPORT ON THE PRICE AND QUALITY OF THE PUBLIC SERVICE FOR ELIMINATING WASTE

(IN APPLICATION OF DECREE NO. 2000-404 OF 11 MAY 2000).

TECHNICAL AND FINANCIAL INDICATORS FOR 2012

This document will be put to a vote by the Committee of Syctom, the metropolitan agency for household waste, during its meeting on 19 June 2013.

SYCTOM PROCESSING UNITS AND TONNAGE PROCESSED

3 incineration centres with energy recovery

(In tonnes)	Capacity of operating order	Technical capacity	Quantities incinerated
Ivry-Paris XIII	730,000	670,000	688,420
Saint-Ouen	650,000	605,000	561,938
Isséane	460,000	460,000	459,945

6 selective collection sorting centres

(In tonnes)	Capacity of operating order	Technical capacity	Quantities received
Nanterre	40,000	33,000	26,763
Ivry-Paris XIII	36,300	30,000	30,023
Romainville	45,000	36,000	36,929
Isséane**	22,500*	23,500	23,301
Sevran	10,000*	10,000	10,341
Paris XV	15,000*	15,000	16,597

* Operating capacity modification requests under consideration.
** The order for Isséane also includes an authorisation to process 32,500 tonnes of bulky objects.

1 residual household waste transfer centre

(In tonnes)	Capacities	Quantities received
Romainville	350,000	354,940

2 waste reception centres

(In tonnes)	Capacities	Quantities received
Ivry-Paris XIII		5,907
Romainville		11,837

PRIVATE UNITS USED BY SYCTOM AND TONNAGE PROCESSED

Incineration centres

(In tonnes)	Operator	Quantities incinerated
Argenteuil	Novergie	35,887
St-Thibault-des-Vignes	Novergie	36,127
Sarcelles	SAREN (Veolia)	40,395
Carrières/Seine	Novergie	17,735

Sorting centres

(In tonnes)	Operator	Quantities received
Le Blanc-Mesnil	Paprec	SC: 8,765
Buc	Nicollin	SC: 6,936 BO: 6,619
Buc/Châtillon	Nicollin/Veolia	SC: 5,564
Chatillon	Veolia	BO: 3,541
Chelles	Généris	SC: 5,625 BO: 7,189
Claye-Souilly	REP	BO: 9,414
Gennevilliers	REP	BO: 5,519
Gennevilliers	SITA	SC: 14,734 BO: 21,118
Villeneuve-le-Roi	Paprec	BO: 6,080
Noisy	Veolia	BO: 19,609
Ivry	CEMEX	BO: 12,842
Ivry	SOFRAT	BO: 31,749
Pierrefitte	CDIF	BO: 15,585
Gennevilliers	Paprec	BO: 26,259

Installations for storing hazardous or non-hazardous waste

(In tonnes)	Operator	Quantities
ISDD Villeparisis	SITA	REFIOM: 42,220
ISDND Bouqueval	REP	71,938
ISDND Claye-Souilly	REP	114,965
ISDI	REP	6,731
ISDI (excluding Syctom contracts)		14,588
Other ISDND (excluding Syctom contracts)		89,016

OVERALL ANNUAL SUMMARY

Number of municipalities in Syctom's scope	Number of inhabitants in Syctom's scope 2010 population survey and supplementary surveys to 2012	Gross tonnage of waste			Selective collection			Fees	
		Household waste, sweepings and green waste	Bulky objects	Non-hazardous industrial waste	Newspapers and magazines, multimaterials, paper, cardboard	Glass	Waste reception centre	Population share	Tonnage share
84	5,735,976	1,981,501 t or 345.5 kg/person/year	167,859 t or 29.3 kg/person/year	764 t	172,730 t or 30.1 kg/person/year	0 t	17,744 t	€7.17	€103.25

EXPENDITURE AND INCOME

Terms of operation of the disposal service awarded to Syctom, the metropolitan agency for household.	Public contracts
Annual amount of expenditure for processing waste by Syctom (total real expenditure section of operation 2012 administrative account - excluding provisions)	€267.6 million
Terms and conditions for financing the general processing service	Contribution from local authorities, Éco-Emballages support for selective collections, product sales
Terms and conditions for setting the special fee for the disposal of assimilated products	Not applicable
Annual total of main contracted services in millions of euros incl. tax	€176.2 million incl. tax
Overall cost per tonne of waste picked up, from the bulky object disposal service (processing or landfill) and including transport and storage of sorting rejects	€104.10/t
Overall cost of processing selective collections	€234.52/t
Overall cost of incineration with energy recovery	€81.10/t
Cost of landfill	€98/t
Income from access rights to processing and landfill centres at which the local authority is the project owner for assimilated waste	Not applicable
Returns from selective collection	Syctom support and Barème E return (excluding glass): €26 million Returns from glass: €3.2 million
Itemised amount of aid received from certified bodies: support per tonne sorted Éco-Emballages ÉcoFolio	€26.7 million €4.4 million

VALORISATION

Recovery of material from incineration	Multi-material recovery	Recovery from bulky objects	Recovery from waste reception centres	Recovery from composting units	Landfill
Electricity: 176,314 MWh Steam: 2,679 026 MWh Clinkers: 339,939 t Ferrous: 36,423 t Non-ferrous: 2,980 t	120,248 t of plastic, paper and cardboard, newspapers and magazines, steel and aluminium, small electrical appliances	85,174 t wood, scrap metal, cardboard boxes	8,949 t	0 t	276,821 t

Recovery of materials from sorting (SC and BO)

- Newspapers/magazines: €4.5 million
- Plastic: €2.6 million
- EMR packaging: €3.7 million
- Paper mix: €1.0 million
- Steel: €0.3 million
- Scrap metal from BO: €0.5 million
- Non-ferrous BO: €0.1 million
- Glass: €2.9 million
- Wood: €0.5 million

Materials recovery from incineration (in millions of euros excl. tax)

- Scrap metal: €3.0 million
- Aluminium from incineration: €2.0 million
- TOTAL INCOME from materials recovery: €21.1 million

Energy recovery (in millions of euros excl. tax)

- Sale of steam and electricity (Isséane and Ivry-Paris XIII): €30.7 million
- Decompensation from sale of steam and electricity (Saint-Ouen): €19.6 million
- TOTAL INCOME from energy recovery: €50.3 million

Measures taken during the year to prevent or reduce the harmful effects on human health and the environment

- Control of atmospheric emissions
 - A call for tender was put out for bio-monitoring services with the aim of improving knowledge of the level of atmospheric pollution around the Saint-Ouen, Isséane and Ivry-Paris XIII energy recovery centres, as well as the contribution of factories in terms of atmospheric fallout.
 - The call for tender enables studies to be carried out on the atmospheric dispersion of chimney emissions, odours or bioaerosols to help determine equipment sizing, anticipate health risks and odours, and improve Syctom's knowledge of the environmental impact of its centres.
 - Acquisition of atmospheric dispersion modelling software enabling Syctom to model the environmental impact of emissions and odour emissions from installations.
- A call for tender was put out for evaluating the health risks in and around Syctom centres. These studies will lead to a quantitative estimation of the probability, or not, of undesirable effects being produced in an inhabited area, as well as providing better knowledge about the impact of the work environment on workers' health.
- Improving working conditions of agents
 - Call for tender for the renewal of the contract to operate the Sevran selective collection sorting centre. Taking into account the greater tonnage reduction in the coming years, Syctom is planning a new operating organisation for the centre (returning to two full-time work stations), ensuring the security of a greater number of jobs.
- Modernisation of the Nanterre selective collection sorting centre with the installation of an innovative automated sorting system, meaning that staff roles can evolve to comprise more quality control, thereby improving their working conditions.
- Installation monitoring
 - Creation of the network of watchmen at the Ivry-Paris XIII multi-channel centre following a request for volunteers by the town of Ivry-sur-Seine and the Council of the 13th arrondissement in Paris. The role of these watchmen will be to monitor the Ivry-Paris XIII site over the course of its different stages: operation of the current centre; construction of the new centre; operation and deconstruction.

SYCTOM'S PARTNERS



SYCTOM CENTRE OPERATORS



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

- The European Union is implementing a common environmental policy. It acts particularly in the field of waste management. Its directives are transposed into French law by the State.
- The French Ministry for the Environment, Sustainable Development and Energy sets the major objectives in terms of 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 specific recycling channels (packaging, batteries, e-waste, etc.).
- ADEME (French Environment and Energy Management Agency) is a public agency under the joint authority of the Ministries responsible for the Environment and Economy.
- The Prefects grant operating authorisations to waste processing centres. They are also responsible for setting up site monitoring commissions (CSS), 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 DRIEE (regional and inter-département department for the environment and energy) is responsible for inspecting rated installations under the authority of département prefects.
- The Ile-de-France regional authority is an important Syctom partner. As such, it supports "Metropolitan Waste Prevention 2010-2014". Since 2005 and the law on local freedoms and responsibilities, it has been responsible for drawing up a regional waste disposal programme. The Region also participates in Syctom's investments.
- SYELOM and SITOM93, the two Syctom member primary syndicates, carry out Syctom's actions in the Hauts-de-Seine and Seine-Saint-Denis départements and undertake community initiatives. They also provide information, coordination and help in decision making for member local authorities and help to monitor collections.
- SIEVD - In November 2011 Syctom signed a partnership agreement with the Rungis Inter-municipal Syndicate for the Use and Recovery of Waste (SIEVD) with a view to strengthening their cooperation in terms of reducing waste, sharing public waste processing facilities and launching a debate on changes to waste deposits.
- SIGIDURS - Syctom, who for many years has been in regular contact with SIGIDURS (whose scope borders that of Syctom between Seine-Saint-Denis and Val d'Oise) signed a cooperation agreement in December 2010 which came into effect on 1 January 2011, with two main focuses: to prevent and reduce household and assimilated waste and to share public facilities for the sorting and processing of household and assimilated waste.
- 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 2012, Syctom received €26.7 million.
- OCAD3E (Certified coordinating body for e-waste) is a subsidiary common to the four eco-organisations responsible, since November 2006, for the technical and economic management of the e-waste channel.
- ÉcoFolio is an eco-organisation, 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, in particular from the distribution of unsolicited mail. In 2012, Syctom received €4.4 million.
- Screlec and Corepile are two eco-organisations approved by public authorities for the collection and recycling of batteries and portable storage batteries on the French market.
- Recylum is the eco-organisation in charge of the collection and recycling of used lights and was approved by public authorities in 2005.
- Éco-DDS, approved by ministerial order in April 2012, is the first eco-organisation in the extended producer responsibility (EPR) sector applied to specific distribution waste, i.e. chemical waste produced by households potentially posing significant health and environmental risks. This company brings together the majority of those putting the chemical products concerned on the market.
- Éco-Mobilier is the eco-organisation that organises the sector for the collection and recovery of used furniture through reemployment, reuse, recycling or even energy production. It was approved in January 2012 by the French Ministry for the Environment. During the syndicate committee in December 2012, Syctom presented an agreement project as part of a contractual organisation shared between Syctom, its member local authorities and Éco-Mobilier.
- The DASTRI association was approved by decree in December 2012 to ensure the removal and treatment of health-care waste with infectious risk (DASRI) produced by patients who administer their own medication.
- CPCU (Paris Urban Heating Company) and EDF buy the steam and electricity produced in Syctom's three incineration units.
- All Syctom's centres are operated by private companies, selected after calls for tender. Génériss (a subsidiary of Veolia Propreté) operates the sorting centres in Saint-Denis, Nanterre and Sevran. Coved operates the sorting centre in Paris XV. Urbaser Environnement operates the sorting centre in Romainville. SITA operates the sorting centre and Novergie the energy recovery unit in the multi-channel centre Ivry-Paris XIII. TIRU and SITA formed the company TSI to operate Isséane. TIRU operates the Saint-Ouen energy recovery centre.
- In order to add to its processing capacity, Syctom uses services provided by external centres operated by contractors: SITA, Nicollin, Génériss, Paprec, Veolia Propreté, CFF, La REP and Novergie.
- Finally, the clinkers from Syctom energy recovery centres are processed by the companies MRF, REP and TIRFER.

GLOSSARY

- >>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 methanisation 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 CO₂ released when it is burned is considered to have already been absorbed by plants during their growth.
- >>BO (Bulky or Over-sized Objects): household waste that is too large to be put in a household bin (bedding, bathroom appliances, furniture, etc.).
- >>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 forms of human organisations.
- >>Classified installations: installations which may be a source of danger or pollution and the operation of which is regulated. A distinction is made between those which are subject to declaration at the prefecture and those which are subject to authorisation from the prefecture following public enquiry, such as waste processing installations.
- >>Clinkers or slag: non-combustible residues produced at the outputs from incineration furnaces. After ageing, they can be used in road works.
- >>Cogeneration: the production of steam and electricity using the heat recovered during the combustion of waste.
- >>DASRI: Health-care waste with infectious risks.
- >>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 liquid food, such as cartons.
- >>EMR: thin, light cardboard packaging for food (snack packets, outer packaging for yoghurts, etc.).
- >>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.
- >>EPCI: (Public inter-municipal consultation institutes) are groups of municipalities which seek to draw up common development projects within a solidarity framework.
- >>Fine particulate matter: waste that is too small to be detected.
- >>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.
- >>Fossil energy: energy produced from oil, gas and coal; non-renewable residues from the fossilisation of living organisms in the earth's sub-soil in geological time. The combustion of these sources of energy generates greenhouse gases.
- >>GHG (greenhouse gases): they help create a greenhouse effect which retains heat around the earth. An excessive concentration of GHG leads to climate disturbances. The gases can be natural (carbon dioxide, methane or ozone) or produced by man (like carbonic acid gas, produced by burning fuel).
- >>HDPE (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.
- >>Heavy metals: metals which, if they accumulate in the environment, pose a danger to human health, such as lead, cadmium and mercury.
- >>Housing equivalent: model home of 80 m² occupied by 4 persons in a collective building built between 1995 and 2000.
- >>HQE (High Quality Environmental standard): the industrial buildings used by Syctom are designed according to HQE principles.
- >>HWIU: household waste incineration unit.
- >>Incineration: method of thermal processing of waste by combustion with energy recovery.
- >>ISDD (landfill installation for hazardous waste) and ISDND (landfill installation for non-hazardous waste) are used to store waste in an environmentally friendly way. ISDDs (formerly CET1) collect hazardous waste (REFIOM, asbestos, polluted soil, etc.).
- >>ISDI: Landfill installation for inert waste.
- >>ISDND (formerly CET2). ISDNDs are used to collect non-hazardous residual waste (see French Royal law of 1992) such as HW, selective collection rejects, bulky object rejects, non-hazardous industrial waste, etc. Class 3 landfill centres collect inert waste (construction debris, etc.).
- >>Leachates: water which, after percolating through waste stored in landfill, carries bacteria and chemicals. It pollutes and must be treated before it can be returned to the natural environment.
- >>Materials recovery: recovery of waste by using its component materials, like the regeneration of used oil, the recycling of newspapers and magazines or packaging materials.
- >>Methanisation: a treatment leading to the production of biogas by the anaerobic breakdown of organic waste. It is a source of energy recoverable as fuel.
- >>NHIW (Non-hazardous industrial waste): waste from industry which can be processed in the same facilities as household waste.
- >>Organic recovery: the recovery of organic waste, by composting for example.
- >>PET (polyethylene terephthalate): 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.
- >>PLP: Local prevention programmes
- >>PREDMA: regional plan for the elimination of household and related waste.
- >>Recovery: reemployment, or any other measure aimed at obtaining reusable materials or energy from waste. (Source: European Framework Directive 1991).
- >>REFIOM: residues from household waste incineration plants made up of particle removal residues and residues from the smoke scrubbing process. They are processed or stabilised before being placed in a site for hazardous waste.
- >>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 hazardous character" (law of 13th July 1992).
- >>RHW (Residual Household Waste): residual waste from daily household activity.
- >>SC (Selective collection): the collection of waste pre-sorted by residents for recycling (packaging, newspapers and magazines, glass).
- >>SEA: Small Electrical Appliances.
- >>Sorting rejects (undesirable waste): excessively dirty packaging or materials which cannot be recovered for recycling.
- >>TOE (tonne of oil equivalent): a measurement with which all types of energy can be compared to oil. Example: 1,200 litres of fuel = 1 TOE.
- >>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).
- >>WEEE (Waste Electrical and Electronic Equipment): 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).



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