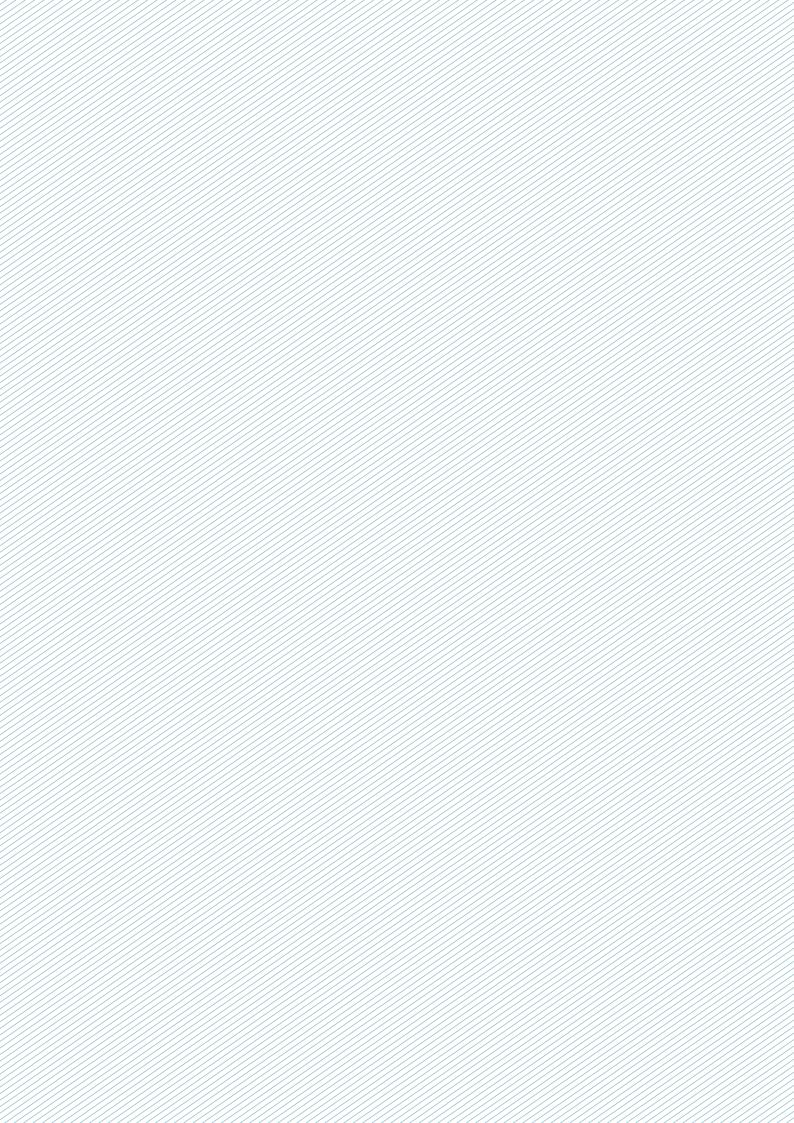
### ACTIVITY REPORT 2020







### TABLE OF CONTENTS

4	Editorial
6	Syctom's elected officials
10	Identity card
12	Treatment facilities
14	Key figures 2020
16	Highlights
17	INTRODUCTION
10	2020
18	2020 A DECISIVE YEAR FOR THE RECOGNITION
	OF THE PUBLIC WASTE TREATMENT SERVICE
11111	
20	RESILIENCE AND COLLECTIVE INTELLIGENCE
	ON A DAILY BASIS
	22 Guaranteeing agility in the facilities
	24 Encouraging sustainable waste management
	26 Ensuring the adaptability of the services together
	INNOVATION AT THE CORE OF OUR REACTIOES
28	INNOVATION AT THE CORE OF OUR PRACTICES
(1111111	30 Coordinating and amplifying the regional impetus 32 Constantly improving the modernisation and integration
	of our facilities
	34 2020: a year of construction
	36 Innovation for energy transition
///////	
38	INVENTIVENESS AND LEADING BY EXAMPLE
///////	TO PREPARE FOR TOMORROW
	40 Promoting the financial balance of the sector
	42 Affirming and sharing its vision for changing the legislation 44 Co-building and intensifying our action internationally
	22 Salitating and interioritying our detroit internationally
47	TECHNICAL AND FINANCIAL REPORT
	48 Budget
	52 Annual report on the price and quality of the public waste
	disposal sorvice

59 Detailed operations report



### EDITORIAL

### Éric CESARI

President of Syctom, the metropolitan agency for household waste Vice-President of the Metropolis of Greater Paris

In the wake of the municipal elections and the ensuing renewal of the 90 Syctom delegates, the new Syndicate Committee elected Éric Cesari as President of Syctom at its inaugural meeting on 24 September 2020. Éric Cesari, Deputy Mayor of Courbevoie and Vice-President of the Metropolis of Greater Paris, joined Syctom in 2014. Actively involved from the outset in the functioning of the syndicate, he served in the Sorting Efficiency Committee and chaired the CSR Committee.

Let's meet the new president.

### You have been a Syctom delegate since 2014, and you are now its president. How do you see your new role?

Throughout my professional and political career, I have built my work ethics on the conviction that you must work around the clock when you are in charge: I therefore want to be a hands-on president, someone who drives and motivates, and not divides or imposes. For this, I get involved on a daily basis, so that I can speak the same language as the Syctom teams, whose competence, commitment and, I would even say, passion impressed me when I joined the organisation. But I was also surprised to see the gap that exists between this commitment and the lack of awareness among our partners and the general public concerning the challenges of waste treatment. Information is not getting across as it should. A lot of work needs to be done to educate everyone involved to make this issue meaningful and to communicate about waste treatment and the costs it entails with full transparency. This need has become all the more pressing as the year 2020, with the strikes and the health crisis, was far from

### In your opinion, did the crises you experienced in 2020 mark a turning point in the history of Syctom?

The strikes that jolted us at the start of the year forced us to find alternative treatment solutions, which were not only expensive, but which also deprived us of the revenue generated by the sale of heat to the CPCU. This period, like the health crisis that followed, penalised us severely with significant budgetary repercussions. However, this crunch year had the paradoxical effect of proving by contradiction our capacity for resilience: during these crises, Syctom demonstrated its capacity to fulfil its public service mission, while the stakeholders and the general public became aware of the importance of our mission. The year 2020 highlighted the importance of the public waste treatment service, as well as the challenges that must be met in the future.

### What exactly are the main challenges that the future holds?

The history of our sector is characterised by the constant endeavour to improve and by its ability to adapt to technologies, standards, but also to society's expectations. Today no one considers landfilling as a solution. We must also make incineration even more virtuous and make sorting and material recovery the major thrusts of our policy. This transformation compels us to invest to maintain the performance of our facilities and prepare for the future by focusing on research and innovation. In the current context, managing food waste is a considerable challenge. To tackle it, I would like us to develop a comprehensive approach, which does not pit the stakeholders against each other.

This brings me to another challenge, namely, control over the entire treatment chain: while the sector is highly segmented, with a division of competences between different players, Syctom cannot merely be the last link. It must have an overall view of the process, because everything is linked.

### Does this mean that Syctom must take a special place within the Metropolis of Greater Paris?

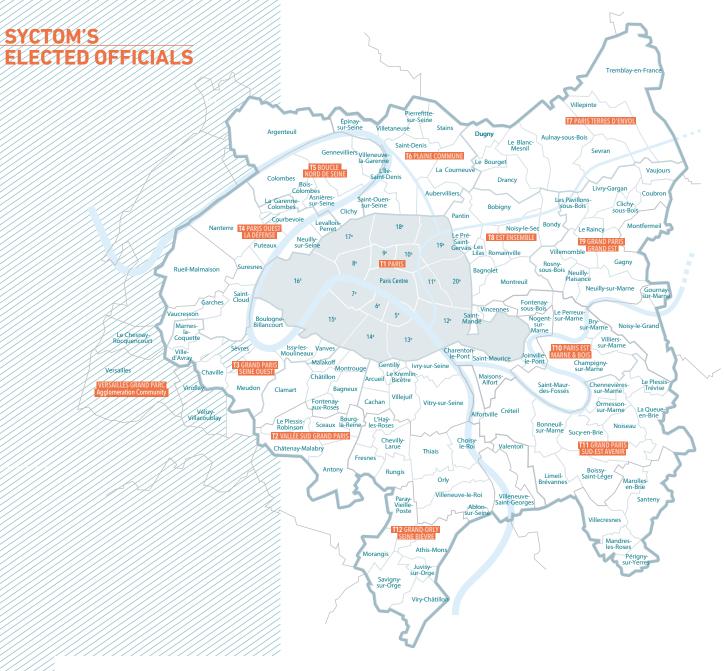
Syctom's sphere of operation is a metropolitan area, which gives us the responsibility of embodying the public waste treatment service on this scale. We treat the waste produced by 6 out of the 7.2 million inhabitants in the Metropolis of Greater Paris. This means we must coordinate a comprehensive approach of sharing with the other syndicates in the Ile-de-France region, to connect and cover the territory in a complementary manner. Only a concerted approach with the other syndicates will allow us to achieve modernisation and make our voice heard with the authorities, both French and European. Syctom must go beyond the strict scope of its responsibility to build a coherent waste treatment policy along with the territorial public institutions as part of its support plan, but also to anticipate the needs of the people and the constraints that the Government will impose on us.

Only a concerted approach, with the other syndicates, will allow us to achieve modernisation and make our voice heard with the authorities.

### Can you tell us about these constraints?

They are above all financial: in light of the challenges we face and the investments we must make, the Government must support us instead of coercing us, as is the case today with the reform of the General tax on polluting activities (TGAP). By imposing on us additional taxes amounting to nearly €30 million this year, the Government is depriving us of a budget that could have been used either to invest or to lower the fee. I believe that the Government should have a different outlook on the players involved in the public waste treatment service, to help them quickly acquire the new technologies that are essential to meet the challenges of tomorrow. For instance, we will not be able to meet the challenge of food waste methanation if the Government is not on our side.

The year 2020 highlighted the importance of the public waste treatment service, as well as the challenges that must be met in the future



Syctom, the metropolitan household waste agency, is the public operator in charge of treating and recovering waste produced by the 6 million people living in the 85 municipalities that make up its area of intervention in the Paris metropolis.

Syctom is administered by a Syndicate Committee composed of 90 local elected officials representing 11 territories of the Metropolis of Greater Paris and the Versailles Grand Parc Agglomeration Community.

- The Syndicate Committee defines the syndicate's policy, votes on its budget, decides on investments and the management methods used.
- It rules on membership and withdrawal requests from local authorities.
- It elects the Board members and the members of the Tender Committee.

The Board is composed of the President, the 15 Vice-Presidents and 20 other representatives, i.e. 36 members in total. A part of the powers of the Syndicate Committee has been entrusted to the Bureau for better governance.

On 24 September 2020, the delegates of the Syndicate Committee elected Éric Cesari as Syctom's President.



PRESIDENT OF SYCTOM Éric CESARI Vice-President of the Metropolis of Greater Paris

T1 • PARIS -

SYCTOM'S VICE-PRESIDENTS



Colombe **BROSSEL** 1st Vice-President Deputy Mayor of Paris



Florentin LETISSIER 11th Vice-President Deputy Mayor of Paris



Jean LAUSSUCQ 14<sup>th</sup> Vice-President Councillor of Paris



Paul SIMONDON 15th Vice-President Deputy Mayor of Paris

SYCTOM'S BOARD MEMBERS



Geoffroy BOULARD Mayor of the 17<sup>th</sup> arr. of Paris, Vice-President of the Metropolis of Greater Paris



Rachida DATI Former minister, Mayor of the 7<sup>th</sup> arr. of Paris, Metropolitan councillor



Lamia EL AARAJE Councillor of Paris, Metropolitan councillor



Raphaëlle PRIMET Councillor of Paris



**Audrey PULVAR** Deputy Mayor of Paris

SYCTOM'S DELEGATES



Jean-Noël AQUA Councillor of Paris, Metropolitan councillor



Jérôme COUMET Mayor of the 13th arr. of Paris, Metropolitan councillor



**Alexis** GOVCIYAN Councillor of Paris



Nathalie LAVILLE Councillor of Paris



Florian SITBON Councillor of Paris



Frédéric **BADINA-SERPETTE** Councillor of Paris



Francois DAGNAUD Mayor of the 19<sup>th</sup> arr. of Paris, Metropolitan councillor



Boris JAMET-FOURNIER Councillor of Paris



Béatrice **LECOUTURIER** Councillor of Paris, Regional councillor of Île-de-France



**Delphine TERLIZZI** Councillor of Paris



Jack-Yves **BOHBOT** Councillor of Paris, Regional councillor of Île-de-France



Jean-Philippe DAVIAUD Councillor of Paris



Pénélope KOMITĖS Deputy Mayor of Paris, Metropolitan councillor



**Carine PETIT** Mayor of the 14<sup>th</sup> arr. of Paris, Metropolitan councillor



Léa VASA Councillor of Paris



**Grégory CANAL** Councillor of Paris



**Nelly GARNIER** Councillor of Paris



Johanne KOUASSI Councillor of Paris, Metropolitan councillor



Sylvain RAIFAUD Councillor of Paris, Metropolitan councillor



François VAUGLIN Mayor of the 11<sup>th</sup> arr. of Paris



Mahor CHICHE Councillor of Paris



Jean-Philippe GILLET Councillor of Paris



Anessa **LAHOUASSA** Councillor of Paris



Jérémy REDLER Councillor of Paris. Regional councillor of Île-de-France

Metropolitan councillor

ALTERNATES

Maya AKKARI Councillor of Paris

David ALPHAND Councillor of Paris

Véronique BALDINI Councillor of Paris

Anne BIRABEN

Gauthier CARON-THIBAULT Councillor of Paris Thomas CHEVANDIER Councillor of Paris

Rémi FFRAUD Senator of Paris, Councillor of Paris

Afaf GABELOTAUD Deputy Mayor of Paris, Metropolitan

councillor Maud GATEL Deputy of Paris, Councillor of Paris Jérôme GLEIZES Councillor of Paris

Rudolph GRANIER Councillor of Paris

Antoine GUILLOU Deputy Mayor of Paris

Céline HERVIEU Councillor of Paris

Fatoumata KONE Councillor of Paris, Metropolitan

Eric LEJOINDRE

Mayor of the 18<sup>th</sup> arr. of Paris, Metropolitan councillor

Véronique LEVIEUX Deputy Mayor of Paris

Valérie MONTANDON Councillor of Paris, Regional councillor of Île-de-France, Metropolitan

councillor

Camille NAGET Councillor of Paris

Jean-Baptiste OLIVIER Councillor of Paris

Eric PLIEZ Mayor of the 20<sup>th</sup> arr. of Paris, Metropolitan councillor

Pierre RABADAN Deputy Mayor of Paris, Metropolitan councillor

Marie-José RAYMOND-ROSSI Councillor of Paris

Hamidou SAMAKE Councillor of Paris, Metropolitan councillor

Hermano SANCHES RUIVO Deputy Mayor of Marie TOUBIANA Councillor of Paris

Anouch TORANIAN Deputy Mayor of Paris, Metropolitan

councillor

**Aurélien VERON** Councillor of Paris, Metropolitan councillor

Karim ZIADY Councillor of Paris

### **T2 • VALLÉE SUD GRAND PARIS**

SYCTOM'S BOARD MEMBERS



Jacqueline BELHOMME Mayor of Malakoff, Vice-President of T2, Acting metropolitan



Benoît BLOT Deputy Mayor of Plessis-Robinson, Vice-President of T2





Francoise MONTSENY Deputy Mayor of Châtillon



Gabriela REIGADA Deputy Mayor of Fontenay-aux-Roses, Metropolitan councillor

Patrice RONCARI Deputy Mayor of Clamart

### T3 ♦ GRAND PARIS SEINE OUEST -

### SYCTOM'S VICE-PRESIDENTS



André SANTINI 4th Vice-President Former minister, Mayor of Issy-les-Moulineaux, Vice-President of T3, Vice-President of the Metropolis of Greater Paris



BARODY-WEISS 6th Vice-President Mayor of Marnes-la-Coquette, Vice-President of T3 Metropolitan councillor



SYCTOM'S BOARD MEMBER

Hervé MARSEILLE Senator of Hauts-de-Seine Municipal councillor of Meudon

SYCTOM'S DELEGATES



Pierre-Christophe BAGUET Mayor of Boulogne-Billancourt, President of T3, Vice-President of the Departmental council of Hauts-de-Seine, Metropolitan councillor



Pierre CHEVALIER Acting municipal councillor of Ville-d'Avray

**AITERNATES** 

**Florence** DE PAMPELONNE Deputy Mayor of Meudon

**Édith LETOURNEL** Deputy Mayor of Issy-les-Moulineaux

Alain **MATHIOUDAKIS** Deputy Mayor of Boulogne-Billancourt

**Bernard ROCHE** Acting Municipal councillor of Vanves

### **T4 • PARIS OUEST LA DÉFENSE**

PRESIDENT OF SYCTOM



Éric CESARI Deputy Mayor of Courbevoie, Vice-President of the Metropolis of Greater Paris

SYCTOM'S BOARD MEMBERS



Perrine COULTER Municipal councillor of Nanterre



Sophie DESCHIENS Deputy Mayor of Levallois-Perret, Regional councillor of le-de-France, special delegate

### **ALTERNATES**

Capucine

DU SARTEL

Deputy Mayor

of Saint-Cloud

Jeanne BECART Mayor of Garches. Vice-President of T4, Departmental councillor of Hauts-de-Seine

> Amirouche LAIDI

Isabelle

COVILLE

Deputy

of Levallois-

Mayor

Perret

Deputy Mayor of Suresnes Claire CHARMETTE

Municipal councillor of La Garenne-Colombes

### José PINTO MARTINS

of Nanterre

Municipal councillor

### SYCTOM'S DELEGATES



Éric BERDOATI Mayor of Saint-Cloud, Vice-President of T4, Departmental councillor of Hauts-de-Seine



Jean-Philippe DUMONT Municipal councillor of Neuilly-sur-Seine



Vincent FRANCHI Deputy Mayor of Puteaux, Metropolitan councillor, Departmental Councillor of Hauts-de-Seine

SYCTOM'S DELEGATES



Thierry LE GAC Deputy Mayor of Asnières-sur-Seine



Patrice PINARD Deputy Mayor of Clichy-

**T5** ♦ BOUCLE NORD DE SEINE

SYCTOM'S VICE-PRESIDENT



Zineb ZOUAOUI 10th Vice-President Deputy Mayor of Gennevilliers

### SYCTOM'S BOARD MEMBERS



Δlevis BACHELAY Deputy Mayor of Colombes



Pascal PELAIN Mayor of Villeneuvela-Garenne, Vice-President of T5, Acting Metropolitan councillor



**ALTERNATES** 

Samia GASMI Deputy Mayor of Colombés

**Bachir HADDOUCHE** Deputy Mayor of Villeneuve-la-Garenne

Éric ISABEY Deputy Mayor of Bois-Colombes

**Anne-Christine** JAUFFRET Deputy Mayor of Bois-Colombes

Frédéric SITBON Deputy Mayor of Asnières-sur-Seine

### T6 ♦ PLAINE COMMUNE -

### SYCTOM'S VICE-PRESIDENTS



Karim BOUAMRANE 7th Vice-President Mayor of Saint-Ouensur-Seine, Vice-President



SYCTOM'S DELEGATES



Nidal AKIYAW Municipal counciİlor of Villetaneuse



Kader CHIBANE Municipal councillor of Saint-Denis



Abdelfattah **MESSOUSSI** Deputy Mayor of Stains



Christian PERNOT Deputy Mayor of Pierrefittesur-Seine



**ALTERNATES** 

**Dieunor EXCELLENT** Mayor of Villetaneuse, Metropolitan councillor



Philippe MONGES Municipal councillor of Île-Saint-Denis, Metropolitan

Laurent MONNET Deputy Mayor of Saint-Denis

### T7 ♦ PARIS TERRES D'ENVOL -

SYCTOM'S VICE-PRESIDENT



Fouad FL KOURADI 8th Vice-President Deputy mayor of Aulnay-sous-Bois

SYCTOM'S BOARD MEMBERS



**Najat MABCHOUR** Deputy Mayor of Sevran



Odette MENDES Deputy Mayor of Drancy

### SYCTOM'S DELEGATE



Lino FFRRFIRA Municipal councillor of Tremblay-en-France

Farida ADLANI Deputy Mayor of Villepinte

Michel CLAVEL Deputy Mayor of Dugny

Cyrille DUPUIS Municipal councillor of Bourget

Thierry MEIGNEN

Mayor of Blanc-Mesnil, Regional councillor of Île-de-France, Metropolitan councillor

### **T8** ♦ EST ENSEMBLE -

SYCTOM'S BOARD MEMBERS



Sonia BAKHTI-ALOUT Deputy Mayor of Bondy



Philippe LAMARCHE Deputy Mayor of Montreuil



Patrick LASCOUX Municipal Councillor of Noisy-le-Sec, Vice-President of T8



Yvon LEJEUNE Recording secretary Municipal councillor of Romainville

SYCTOM'S DELEGATES



Nadège **ABOMANGOLI** Municipal councillor of Pantin



Daouda GORY Municipal councillor of Romainville

**ALTERNATES** Françoise CELATI

Acting Municipal councillor of Noisy-le-Sec

Jean-Marc CHEVAL Acting Municipal councillor of Bondy

Luc DI GALLO Deputy Mayor of Montreuil

Amin **MBARKI** Municipal councillor of Montreuil

**Brigitte** MORANNE Municipal councillor of Romainville

### T9 ♦ GRAND PARIS GRAND EST -

SYCTOM'S DELEGATES



Michèle CLAVEAU Deputy Mayor of Noisy-le-Grand



Jean-Paul **FAUCONNET** Mayor of Rosny-sous-Bois, Vice-President of T9



Jean-Michel GENESTIER Mayor of Raincy, Vice-President of T9, Acting Metropolitan councillor



Ludovic TORO Mayor of Coubron, Vice-President of T9, Metropolitan councillor

**ΔITERNATES** 

Pascal BUTIN Deputy Mayor of Neuilly-Plaisance

Henri CARRATALA Deputy Mayor of Livry-Gargan

Christine GAUTHIER Deputy Mayor of Pavillons-sous-Bois

Valérie SILBERMANN Deputy Mayor of Gagny

### T10 PARIS EST MARNE & BOIS -

SYCTOM'S VICE-PRESIDENTS



Florence **CROCHETON-BOYER** 5th Vice-President First Deputy Mayor of Saint-Mandé



**ΔITERNATES** 

councillor

Marie-Hélène MAGNE Deputy Mayor of Charentonle-Pont, Vice-President of T10



SYCTOM'S DELEGATES

Michel **BUDAKCI** Deputy Mayor of Saint-Maurice



Charlotte LIBERT-ALBANEL Mayor of Vincennes, Vice-President of T10



Virginie TOLLARD Deputy Mayor of Joinville-le-Pont, Vice-President of T10



Jean-Luc CADEDDU 13th Vice-President Deputy Mayor of Maisons-Alfort

SYCTOM'S BOARD MEMBER

**Christian CAMBON** Senator, Municipal councillor of Saint-Maurice, Metropolitan

Michel DESTOUCHES Deputy Mayor of Joinville-le-Pont

Laurent LAFON Senator, Municipal councillor of Vincennes. Metropolitan councillor

Marc MEDINA Deputy Mayor of Saint-Mandé

Pierre MIROUDOT Municipal councillor of Charenton-le-Pont

Frédéric TURPIN Municipal councillor of Maisons-Alfort

### T12 ♦ GRAND-ORLY SEINE BIÈVRE

SYCTOM'S VICE-PRESIDENTS



Philippe BOUŸŚSOU 2<sup>nd</sup> Vice-President Mayor of lvry-sur-Seine, Metropolitan councillor



Sabrina SEBAIHI 3rd Vice-President Deputy Mayor of Ivry-sur-Seine

SYCTOM'S DELEGATES



Khaled **BEN-MOHAMED** Deputy Mayor of Vitry-sur-Seine



Sidi CHIAKH Municipal councillor of Kremlin-Bicêtre



of Gentilly

**Nadine HERRATI** 

Deputy Mayor





Mostefa SOFI Deputy Mayor of Villejuif



Cécile SPANO Deputy Mayor of Valenton

Samuel BESNARD Deputy Mayor of Cachan

Guillaume BULCOURT Geneviève ETIENNE Deputy Mayor of Villejuif

Deputy Mayor of Kremlin-Bicêtre Élisabeth GAUTIER Municipal councillor of Valenton

Elisabeth HUSSON-LESPINASSE Municipal councillor of Gentilly

Clément PECQUEUX Deputy Mayor of Ivry-sur-Seine

Albertino RAMAEL Deputy Mayor of Vitry-sur-Seine

### **VERSAILLES GRAND PARC AGGLOMERATION COMMUNITY**

SYCTOM'S VICE-PRESIDENT



Richard DELEPIERRE 12th Vice-President Mayor of Chésnay-Rocquencourt, Vice-Président of the Versailles Grand Parc AC

**ΔITERNATES** 

Violaine CHARPENTIER Deputy Mayor of Chesnay-Rocquencourt SYCTOM'S DELEGATES



Philippe PAIN Municipal councillor of Versailles, FU councillor



**Pascal THEVENOT** Mayor of Vélizy-Villacoublay, Vice-President of the Versailles Grand Parc AC

Frédéric HUCHELOUP

Deputy Mayor of Vélizy-Villacoublay

Xavier GUITTON Municipal councillor of Versailles

### IDENTITY CARD

### **PRESENTATION**

Syctom, the metropolitan agency for household waste, is a public player committed to ecological transition and the public operator in charge of treating and recovering waste produced in its area of intervention (see map opposite).

Thus, it receives waste streams collected by the member local authorities and treats them.

To this end, it operates 10 treatment units and a network of waste reception centres.

- Created in 1984
- No. 1 EUROPEAN PUBLIC PLAYER

Syctom offers its member local authorities:

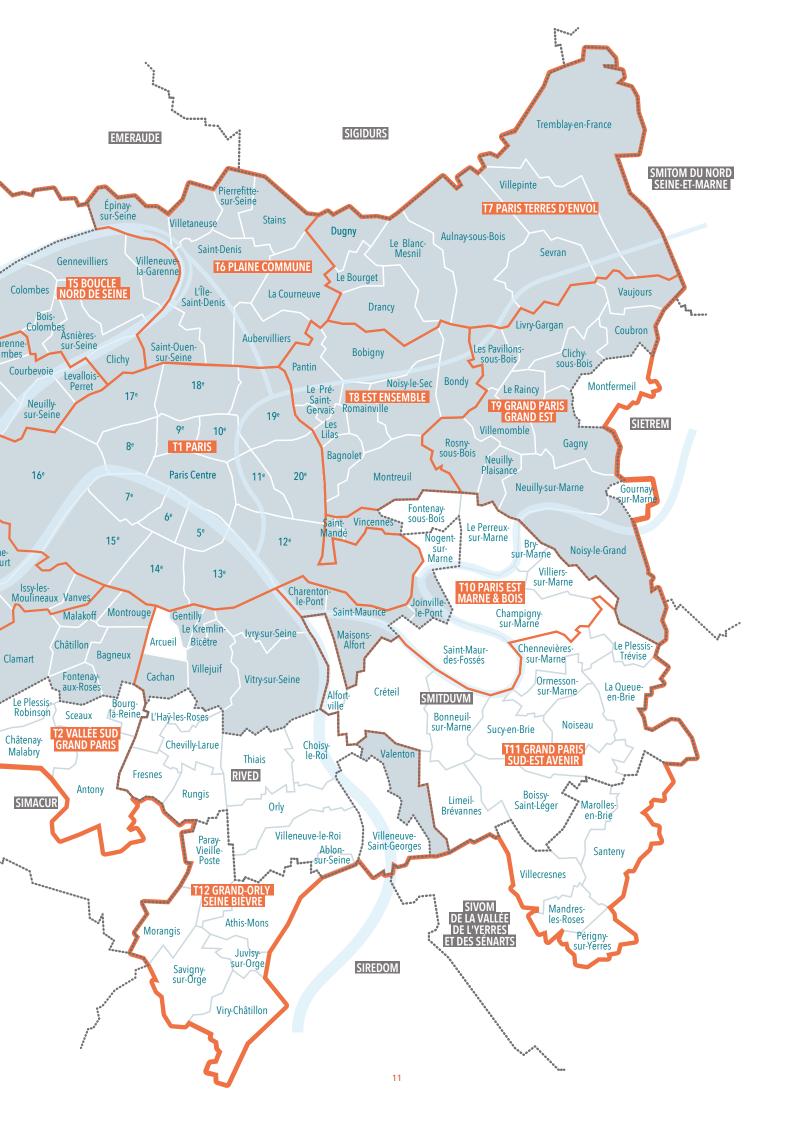
- An essential service, the treatment of household and similar waste as close as possible to its place of production.
- Initiatives and means to reduce the quantities of household waste produced.
- Support for the treatment of streams excluding household waste or selective collections.
- A permanent forward-looking reflection and associated research projects on the future of waste, including all possible forms of recovery within the framework of a more circular economy.

### SYCTOM'S TERRITORY

- Syctom's 12 member territories:

  11 territories in the Metropolis of Greater Paris and the Versailles Grand Parc Agglomeration Community
- 85 Île-de-France municipalities in Syctom's territory
- 6 million inhabitants, i.e. nearly 10% of the French population
- 90 delegates representing Syctom's member territories





### TREATMENT FACILITIES



Tremblay-en-France



1 ISSÉANE, ISSY-LES-MOULINEAUX

Catchment area: 1.3 million inhabitants 442,401 tonnes incinerated in 2020 Authorised capacity: 510,000 tonnes Operator: Issy Urbaser Energie

• Selective collection sorting centre Catchment area: 500,000 inhabitants 17,177 tonnes received in 2020 Authorised capacity: 30,000 tonnes (including 7,500 t of transfer authorised) Operator: Suez



350,000 tonnes



Catchment area: 1.4 million inhabitants 552,350 tonnes incinerated in 2020 Authorised capacity: 650,000 tonnes Modernisation and urban integration works by 2024

Operator: Dalkia Wastenergy



Catchment area: 650,000 inhabitants 24,073 tonnes received in 2020 Authorised capacity: 32,200 tonnes Operator: XVéo (Veolia)



• Selective collection sorting centre Authorised capacity: 65,000 tonnes after modernisation works



### **6** PARIS XVII

Selective collection sorting centre
 Catchment area: 1.2 million inhabitants
 39,209 tonnes received in 2020





Authorised capacity: 55,000 tonnes Operator: Valoram (Urbaser)
• Residual household waste transfer centre

Catchment area: 1.2 million inhabitants 389,983 tonnes received in 2020 Operator: Généris (Veolia)

### **8** SEVRAN

• Selective collection sorting centre Catchment area: 480,000 inhabitants 17,403 tonnes received in 2020



### KEY FIGURES 2020



### HOUSEHOLD PACKAGING AND PAPER

### 181,065 t

received in selective collection sorting centres.

198,081 t in 2019

**WASTE** 

TREATMENT

**2,205,177** t of waste treated by

for 6 million



### **WASTE RECEPTION CENTRES**

### 43,219 t

bulky objects and special household waste received in the 31 fixed and mobile waste reception centres.

30,225 t in 2019



### **BULKY OBJECTS**

### 228,046 t

waste collected door-to-door, illegal dumps, and waste from technical services and treated in bulky objects sorting centres.

231,422 t in 2019



### **HOUSEHOLD WASTE**

### 1,746,229 t

treated in incineration centres with energy recovery or, as a last resort, by landfilling\*.

1,872,649 t in 2019



### **FOOD WASTE AND GREEN WASTE**

### 6,618 t

collected separately for composting or methanation.

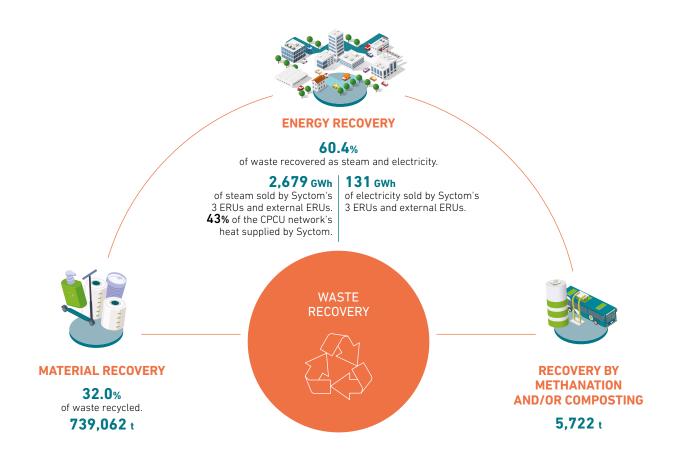
7,354 t in 2019 (food waste only)



### GLASS PACKAGING: 121,521 t

were collected from Syctom's territory and sent directly for recycling without passing through the Syndicate's facilities.

128,078 t in 2019





### \*LANDFILLING

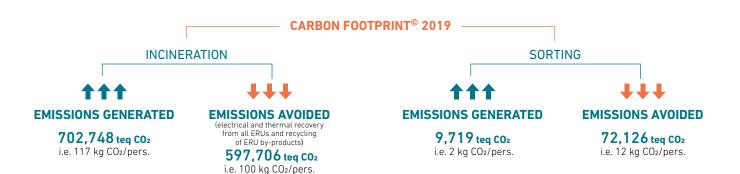
7.6%

of waste landfilled.

174,585 t

of household waste, downgraded waste and sorting rejects directed to storage centres.





### HIGHLIGHTS











After a spring disrupted by the health crisis, the construction project at the lvry/Paris XIII centre resumed at full throttle. (see pages 33-34)



### A word from the General Director of Services INVESTING IN THE COMMUNITY

The year 2020 was marked first by the crises triggered by the strikes against pension reforms, and then by the pandemic: at every moment, Syctom rose perfectly to the occasion! No one in the metropolis had to suffer from a failure of the public waste treatment service: the garbage was treated, operation continued and our construction sites resumed quickly. I would even say that the manner in which we managed these crises accelerated and amplified the process of cooperation initiated with the territories. While we were already determined to build new partnerships with them, through performance contracts, our ties grew even stronger and we all were faced with the necessity to work together, even more closely with the elected officials and the services. Internally, the experimentation with teleworking, which we initiated in 2019, enabled us to deploy it quickly and extensively; more broadly, we dematerialised a lot of our operations and proved that we know how to remotely manage the public waste treatment service. Even remotely, everyone helped to ensure service continuity. It's a telling proof of our strength!

We must now capitalise on this success and regain the group cohesion and collective dynamic found only in in-person work. Because, though everyone realised that dematerialisation is good and that it works, human contact remains irreplaceable, both internally as well as in our relations with the territories.

If everything goes as we all hope, a newfound collective impetus will emerge in the coming months, and will grow even stronger, amplified by the hardships we have gone through together and by the renewed framework in which we are working today.

We also moved to our new premises in 2020, and now enjoy comfortable and bright work spaces, on a single platform. Our new premises, conducive to breaking down silos, to transparency and to communal living, will facilitate the long-awaited return to more normal and serene working conditions. Our relocation has opened a new chapter in our history that I hope will fill us with greater energy and enthusiasm.

Martial LORENZO
General director of services, Syctom

Everyone has realised that dematerialisation is good, but human contact remains irreplaceable, both internally as well as in our relations with the territories.

### INTRODUCTION

### 2020

# A DECISIVE YEAR FOR THE RECOGNITION OF THE PUBLIC WASTE TREATMENT SERVICE

The strikes, which paralysed some facilities at the start of the year, and then the health constraints that weighed heavily on us since March 2020, have proven Syctom's ability to operate even in times of crisis. The year 2020 confirmed the central role of the public waste treatment service, an essential cog in urban metabolism. Looking back on an unprecedented year.

### JANUARY-FEBRUARY

### FINDING ALTERNATIVES TO MAINTAIN WASTE TREATMENT

The strikes against the pension reform led to the closure of the three energy recovery units (ERUs) in Saint-Ouen-sur-Seine, Issy-les-Moulineaux and Ivry/Paris XIII on 23 January 2020. Syctom had to urgently find alternatives, elsewhere than in its centres, so as not to interrupt the treatment of waste produced by the six million people living in its territory. Despite these workarounds, the syndicate was forced to landfill 5,000 tonnes of waste per day, mainly in Seine-et-Marne and in the Val d'Oise. This had disastrous consequences not only economically (see box), but also ecologically:  $CO_2$  emissions due to the increased use of road transport and obligation for the Paris urban heating company (CPCU) to purchase fossil fuels to compensate for the steam usually supplied by Syctom. As this situation could also have posed risks in terms of public health and safety, Syctom requested the Regional and Paris Police prefects, on February 6, to issue orders for requisitioning personnel so that the facilities could restart.



### €23.2 million

this is the cumulative cost of the strikes and the health crisis for Syctom.

ON SYCTOM'S FINANCES

Estimated at €14.2 million, the cost of the strikes in early 2020 is linked to the expenses generated by (€7.6 million), and to the decline in revenue caused

STRIKE AND HEALTH CRISIS. A DUAL IMPACT

As for the health crisis, it costed Syctom €9 million for 2020, a sum which is explained both by the additional costs generated by the crisis and the drop in revenue resulting from fluctuations in tonnages treated.

### MARCH-MAY

### **ENSURING THE QUALITY AND CONTINUITY** OF THE PUBLIC SERVICE

Faced with the Covid-19 pandemic, while the member local authorities ensured the continuity of their collection mission to a large extent, Syctom, for its part, set up new organisations to reconcile waste treatment and the protection of staff, and thus avoid a deterioration of the health situation. By applying its business continuity plan (BCP), Syctom succeeded in maintaining the operation of its three ERUs and the transfer centre in Romainville in close collaboration with the operators and the member local authorities. On the other hand - with the exception of the one in Issy-les-Moulineaux - the selective collection sorting centres were shut down to guarantee the safety of sorting agents, who were more exposed to the risk of infection. The sorting centres resumed their operation very early in May 2020, with the sole exception of the sorting centre in Paris XV, which reopened on 11th May.

In the offices, teleworking, carried out experimentally since 2019, was quickly deployed, guaranteeing the continuity of accounting chains, public procurement, communication and a careful management of personnel. It also made it possible to ensure the necessary coordination with the local authorities and operators on a daily basis.

Thanks to everyone's involvement and sense of responsibility, Syctom was able to face the crisis and guarantee the quality and continuity of its missions.

### **FROM JUNE**

### ADAPTING TO THE HEALTH CRISIS

From the end of April, Syctom and the operators prepared to reopen the sorting centres and waste reception centres. Specific measures were taken (plexiglass barriers, floor marking, etc.) to guarantee compliance with social distancing guidelines for both staff and users.

During the same period, a business continuity plan was drawn up to allow the partial return of the agents to Syctom's head office, under the best possible conditions of safety for all. Since then, Syctom has largely encouraged teleworking and has applied strict health protocols for agents working physically on site.

As far as operation is concerned, there had been a sharp decline in the overall volume of waste to be treated during the lockdown. Reopening led to a resumption of activity, marked by volume fluctuations and uncertainty about upcoming changes, a situation to which the teams had to adapt.

### Fluctuation

During the lockdown period, the tonnages of household and similar waste varied substantially. While the average reduction in activity over the entire period stood at 25%, FRU activity experienced a record decline of 32% in early April due to the slowdown in the economy and the departure of a section of the population. This reduction made it easier to manage wastes and avoid landfilling.

### **HEALTH GUIDELINES:** A PROACTIVE RESPONSE

Thanks to the Regional Prefect, Syctom's reserves of FFP2 masks were used to protect the agents of the three very quickly to draw safety markings on the ground, reorganise the premises, ensure better distancing for staff, and adapt to a reduced workforce due to illness or childcare.





# RESILIENCE AND COLLECTIVE INTELLIGENCE ON A DAILY BASIS

Backed by its thirty-five years of experience,
Syctom succeeded in ensuring the continuity
of the public waste treatment service in 2020.
It relied on the excellent relationships it
maintains with its partners, on its robust,
state-of-the-art facilities, as well as on the sense
of responsibility of all its staff. Despite a tumultuous
year, Syctom was able to renew its commitments
to an increasingly sustainable waste management.



### GUARANTEEING AGILITY IN THE FACILITIES

with the strikes at the start of the year and the health crisis, was particularly difficult. But this unprecedented context highlighted the essential role



of the public waste treatment service. Syctom was thus able to demonstrate the strength of its organisation throughout the period. Through this ability to anticipate and adapt, Syctom agents were able to ensure the proper functioning of the facilities, thus avoiding a deterioration of the health situation and fulfilling steam deliveries to the CPCU. In this unprecedented context, it was also the effective coordination with field actors, the sense of responsibility of all the stakeholders and the relationships with the local authorities in our territory that made it possible to guarantee the quality and the continuity of the waste treatment service.

Jacques Gautier
Former President of Syctom (2017-2020)

An exceptional year, if ever there was one, 2020 exposed Syctom to strong fluctuations in the waste streams to be treated. It had to be responsive to adapt the organisations and keep the commitments made.

From the reception of collection bins to the sale of steam from waste incineration, all the stages of Syctom's industrial process, in its sorting centres and in its energy recovery units, were impacted in January by strikes, then from March by the health crisis. The experience and mobilisation of its teams and partners, as well as the performance of its equipment, enabled it to surmount these two crises.

### UNUSUAL CHANGES IN WORKING RHYTHM

The sudden economic slowdown induced by the lockdown, which began on March 17, led to an overall reduction in the volume of waste produced, collected and received in Syctom's facilities. This decline was exacerbated, in certain areas, by the departure of a section of the population from Ile-de-France; in other areas, however, this phenomenon did not occur, and the tonnages of waste even increased, in places. In Seine-Saint-Denis, for example, there was an increase in

the volume of household waste collected, because people who usually work in Paris during the day were at home due to the lockdown.

After a record low during the week of 30th March to 5th April, with a 32% drop in the volumes of waste treated compared to a typical week, the curve reversed and gradually returned to more normal levels, from 11th May, in the wake of the resumption of economic activity. In June 2020, there was even an increase in the quantities of household packaging, paper and bulky items, compared to June 2019, as residents had stored their waste waiting for the resumption of separate collections. These variations imposed unusual changes in working rhythm on the organisation.

### MAINTAINING STEAM PRODUCTION

resulted, by cascade effect, in a drop in the quantities of steam produced from energy recovery. This happened in particular during the strikes, with the shutdown of the ERUs, which led to difficulties in delivering steam to the CPCU. To meet its contractual commitments, Syctom had to optimise the management of its sites so as to maximise the production of steam to be delivered. It therefore shut down its turbo-generator units (GTAs) which convert steam from incineration into electricity, in order to prioritise 100% steam production. It also decided to postpone the work planned on the flue treatment line 2 at the Saint-Ouen-sur-Seine ERU by a few months so that it had its full incineration capacity. As a result of these measures, steam deliveries to the CPCU could be fulfilled: they stood at 3,560,000 tonnes for the year 2020, slightly above the minimum threshold of 3,519,000 tonnes.

A slump in the tonnages of residual household waste (RHW)

### OPTIMISING THE MANAGEMENT OF INDUSTRIAL ASSETS

In addition, in 2020, Syctom began implementing a new management system for its industrial assets, based on a predictive maintenance policy. This involves using a Reliability Centred Maintenance (RCM) method to identify the key process equipment on which preventive maintenance must be focussed, so as to avoid equipment downtime, which has a heavy financial impact.

This asset management strategy was initiated in January 2019 by the General Directorate of Technical Services to control the new sorting processes implemented as part of the plan to modernise the centres. It guarantees the consistency and planning of maintenance operations and, consequently, the continuity and efficiency of the waste treatment service.

This strategy was implemented during the spring 2020 lockdown by monitoring a dashboard of maintenance indicators for the sorting centres in Sevran, Paris XVII and Romainville, listing the assets in the sorting centres, updating its Computer Aided Maintenance Management (CMMS) tool and drawing up lists of "mandatory periodic checks" to harmonise the sometimes disparate practices of operators and thus improve the reliability of Syctom facilities.

### HOW IS WASTE CONVERTED INTO HEATING?

Burning RHW in ovens in the ERUs produces energy. In line with the principles of the circular economy, this recovered energy is either converted into electricity using turbines, or recycled as steam to supply urban heating networks. Syctom prefers this second avenue, as its energy efficiency is higher than the conversion into electricity. And since 2016, it has supplied more than 40% of the energy used by the CPCU to heat housing and public facilities, including all AP-HP hospitals. Determined to increase its contribution to the production of sustainable energy, in a context of limited incineration capacities, Syctom is modernising its industrial facilities and carrying out various research projects (see pages 30-31) to optimise and diversify the energy efficiency of its facilities.

### **21** December 2020

This is the date on which Syctom reached the contractual threshold for delivering steam to the CPCU, i.e. a minimum of 3,519,000 tonnes.





## ENCOURAGING SUSTAINABLE WASTE MANAGEMENT As a promoter of resp waste management,

As a promoter of responsible and sustainable waste management, Syctom pursues a committed policy along with the local authorities in its territory to reduce waste production at the source and limit landfilling. To do this, it supports the development of sorting and recycling practices, and educates all the stakeholders about these issues.

Making Syctom the "recycling champion" is the declared ambition of the syndicate's new governance. Three main drivers are leveraged to make this ambition a reality and to make Syctom fully consistent with a circular economy approach.

To tackle the challenges of sustainable waste management in the Paris metropolitan area, Syctom was able to collectively define a proactive sustainable strategy. It is based on local



presence, with waste treatment as close as possible to the places of production, and an absolute priority to reduce the quantity of household waste produced. It also translates into strong and concrete commitments: no longer landfilling recoverable waste, reducing incineration, boosting all forms of recovery, raising public awareness to "throw less and sort better". Syctom works in harmony with its member local authorities to develop local projects, such as the sorting and recovery of food waste, which represents a major challenge for the years to come.

Paul Simondon 15<sup>th</sup> Vice-Chairman of Syctom

### SORT, RECYCLE: THE CHALLENGE OF FOOD WASTE

Local authorities, who have been engaged in the selective collection of paper and packaging for a long time, will have to organise the source collection of food waste by 2024. To help them comply with the new legislative requirements, Syctom has been offering various forms of support since 2017 to the Territorial Public Institutions (EPT) within its territory, which are embarking on the separate collection of food waste. Following a call for projects launched in 2018, it also provided financial support for the deployment of four innovative local initiatives for the treatment of food waste. Two million euros were devoted to implementing these projects. Syctom also encourages the development of individual, collective and neighbourhood composting solutions, by financing

composters.

In 2019, the financial and logistical support granted to experiments - carried out in school restaurants, with households and in the markets - had made it possible to double the volume of food waste treated separately in one year. Although the health crisis slowed down this momentum, Syctom's determination to support EPTs in setting up collection solutions adapted to the profiles of the different producers (households, schools, food markets, collective restaurants) remains undiminished.

Until the end of 2023, Syctom will continue to collect food waste free of charge (a responsibility that is not included in its statutes) and to offer very attractive treatment rates to collectively achieve the objectives set by the AGEC law (see box).

### €1.6 million

devoted in 2020 to the collection and treatment of food waste

### PREVENTION AND AWARENESS: THE MOBILISATION OF ALL

Composting, the fight against food waste, aid for the development of recovery centres, "Zero Waste Family Challenge" operations: these are some ways in which Syctom financially supports the initiatives of its member local authorities to promote the reuse, sorting and reduction of waste. The magnitude of the stakes involved requires the mobilisation of everyone, including elected officials, associations and citizens. Therefore, in consultation with its partners, Syctom has been promoting these numerous actions for several years to raise public awareness to prevent wastage and waste production.

With the same concern for information, education and awareness of the general public and in view of the needs of the territories affected by the extension of sorting instructions, Syctom bolstered the ranks of its eco-facilitators from 40 to 60 people with two additional teams from January to March. After being suspended in March and then at the end of October, their door-to-door campaigns on the ground resumed gradually in mid-December.

As prevention also calls for innovation and eco-design, Syctom organised its now traditional Design Zero Waste (DZD) competition in 2020, dedicated to French students and young graduates. Dedicated to the fight against food waste in the food service sector, this 8<sup>th</sup> edition recognised some very inventive projects. The Syctom prize was thus awarded to the Ecoapp project, led by Jane Char and Yi Yang, students of LISAA Paris, who designed an analytical accounting app to help restaurant owners to limit food waste and financial losses as much as possible. The 1<sup>st</sup> jury prize was awarded to Eliott Pananceau, from Lycée François-Mansart in La Varenne Saint-Hilaire, for his La Cabane project on the design of multipurpose street furniture that facilitates the donation of unsold items on the Rungis market.

Launched in the autumn of 2020, the 2021 edition of the DZD competition was sponsored by designer Mathieu Lehanneur, in partnership with the association "Réseau vrac" and the group "Les Mousquetaires". Its theme, "Du pack au vrac" ["From pack to bulk"], focussed on how to develop bulk selling and buying in various sectors (hardware, home and personal care products, seeds for individuals or food products).

### WASTE REDUCTION: MEDIUM- AND LONG-TERM TARGETS

In accordance with the French Anti-Waste Law for a Circular Economy (AGEC) voted in February 2020, Syctom is deploying numerous actions and avenues for improvement to achieve ambitious regulatory targets:

### By 2024-2025:

- Source sorting of 100% of food waste (2024)
- Recycling of 77% of plastic bottles (2025)

### By 2027-2030:

- Reuse of 10% of waste (2027)
- Recycling of 90% of plastic bottles (2029)
- 50% decrease in the number of single-use plastic bottles (2030)

### By 2035-2040:

- Reuse or recycling of 65% of waste (2035)
- Achieve zero single-use plastics (2040)

### REDUCING LANDFILLING EVEN FURTHER

While nationally, 30% of waste is landfilled, this share is only 7% within the Syctom territory: an achievement that the syndicate's governance wishes to improve even further with the objective of zero recoverable waste landfilled by 2025. To better optimise and regulate RHW streams, it has relied since 2019 on a partnership with the operator of the non-hazardous waste storage facility in Claye-Souilly, which now stores RHW intended for Syctom's ERUs according to their available capacities. Since April 2020, this same site has been used to bale RHW to keep it in as-is condition for up to six months. Thanks to this stock, the ERU ovens are adequately supplied during periods of high energy demand, such as in winter. Finally, Syctom acquired an online logistics platform to guarantee better forecasting of RHW receptions and thus optimise distribution among the ERUs.

### **55.000** tonnes of HW

can be received by the transfer centre in Claye-Souilly

Our food waste collection was brought to a halt with the first lockdown. It was challenging to resume this activity, still in the launch phase, in coordination with the member local authorities. By the end of 2020, we could return to collection levels equivalent to those before the health crisis, thanks to an increase in the number of sites collected. Awareness-raising actions around the sorting of food waste should make it possible to revive the momentum and regain the effectiveness of sorting practices prior to the crisis.

### Loïc Morel

Energy and bio-waste recovery director, Deputy general directorate for waste use and recovery (DGAEVD)



## ENSURING THE ADAPTABILITY OF THE SERVICES

**TOGETHER** 

In terms of work organisation, the health crisis acted as a catalyst to step up the organisational changes underway. The year 2020, which marked Syctom's relocation, also witnessed the generalisation of teleworking and a renewed use of digital tools.

### TELEWORKING AND AGENT SUPPORT

Experimented on a small scale in 2019, teleworking was gradually deployed within Syctom teams in 2020 and in particular during successive lockdowns. The number of agents equipped to work remotely rose from 45 in early 2020 to 90 in early April, accounting for nearly 70% of the staff. Human resources, finance, contracts, information systems and general resources departments: the teams in charge of HR functions showed great responsiveness, guaranteeing the uninterrupted performance of their tasks and those of the other departments.

At the same time, special attention was paid to monitoring the morale of teleworkers to avoid the risk of isolation. A daily message entitled "Have a nice day" and a weekly newsletter "Syctom info" were distributed to everyone, both to maintain social ties and to share Syctom's activity and news. The success of this internal communication sparked the creation of a bimonthly internal newsletter "Syctomien" from June 2020.



they moved to Kadence.

Lockdown restrictions, which proved to be a catalyst for innovation, also confirmed the transformations underway in Syctom's internal organisation, changes taken into account by the relocation project carried out in 2020.

### **RELOCATION AT A GOOD "KADENCE"**

In line with the changes that lockdown seems to have made permanent, the preparation for Syctom's relocation was an opportunity to rethink the organisation and working modes internally, taking into account the greater mobility of agents, the deployment of teleworking and the repercussions in terms of technical and human resources.

Much more than just a change of address, the establishment of Syctom's head office in the  $13^{\rm th}$  arrondissement of Paris galvanised many internal resources to support the transition in all its facets.

The new premises were therefore designed keeping in mind the modernisation of means and work tools, increasing virtual interactions and the need to have collective spaces for collaboration and coworking. We had to strike the right balance between the layout of the offices, meeting rooms, project spaces and places dedicated to the quality of work life. In terms of videoconferencing equipment, the meeting rooms have large screens with integrated webcam and high-quality sound. Ideal for conducting hybrid meetings, physically and remotely.

In order to achieve a better collective organisation of work, great thought was given to the use of digital technology and the vigilance it requires (see box).

The successful relocation, which Syctom's departments were able to carry out in record time and in a context restricted by the pandemic, also relied on the steps taken to ensure that the agents participated actively in the project: from working groups to guided tours, consultation took several forms throughout the second half of the year. This made it possible to welcome proposals and questions, particularly with regard to acoustics and ergonomics. The choice of furniture and colour schemes for the decoration, for example, was put to a vote.

This relocation also reveals its full impact from an economic point of view, since it will generate annual savings of one million euros in Syctom's operating budget.

148 offices,7 meeting rooms,8 informal meeting spaces,

the new Syctom premises are better suited to current working methods

### TOWARDS A RESPONSIBLE USE OF DIGITAL TECHNOLOGY

Syctom fitted out its new offices with modern equipment keeping in mind the environmental and social impacts of these new working habits. Raising awareness among agents about digital sobriety and promoting the responsible use of new technologies are part of the syndicate's commitments, in its internal practices as well as in its public procurement requirements.

### A RENEWED DIALOGUE WITH THE OUTSIDE WORLD

The year 2020 was also an opportunity for Syctom to improve and diversify its external communication, in order to give more voice to waste management issues. The frequency of *Syctom mag* was thus increased from four to five issues per year, to better mirror current events in the sector. A new digital newsletter, "La Newsletter du Syctom", was also launched. Each month, it offers its subscribers enriched content on the syndicate, its projects and actions, as well as its partnership initiatives.

Finally, Syctom strengthened its presence on social networks, Twitter, Facebook, Instagram, LinkedIn, but also on its YouTube channel, on which the Syndicate Committee and Board meetings were live streamed on 19 June 2020 for the very first time.

### From 18 to 22 December 2020

Syctom organised a competition on social networks to invite Internet users to share their "zero waste" tips. The winners received blogger Camille Ratia's "zero waste" calendar as a gift. This initiative aims to educate the public in a fun way about the challenges of waste reduction.





### INNOVATION AT THE CORE OF OUR PRACTICES

In line with a sustainable and responsible approach, Syctom strives to innovate on all fronts. Whilst working with local authorities, it fuels an unprecedented collective dynamic, essential to achieve the legislative waste reduction targets. On its various sites, it modernises and integrates the facilities into their urban setting, to enhance efficiency and acceptability. Finally, it pursues its innovation projects and employs cutting-edge technologies to limit its environmental impact and contribute to the ecological transition.



## COORDINATING AND AMPLIFYING THE REGIONAL IMPETUS

The year 2020 showed that all stakeholders in the waste chain have an essential role to play in ensuring a responsible management. This chain is above all local and addresses an issue



on the ground. EPTs and member municipalities must work hand in hand with Syctom to implement effective prevention and awareness actions and meet the challenge of waste reduction. The solutions must be built collectively, with the elected representatives of regional authorities, producers of household waste, treatment agencies, associations and residents. All the stakeholders first and foremost the member territories of Syctom - also contributed to the development of the Great Challenge action plan.

Marie-Hélène Magne Syctom's Board Member, Vice-President of Paris Est Marne & Bois Recognised by public authorities as one of the leaders in waste treatment, Syctom is committed to support and engage local authorities in the ecological transition that will be initiated by a renewed vision of waste management and recovery. To this end, it is developing the future operational plan for coordinating the prevention, collection and treatment of local household waste.

### PARTNERSHIP, A KEY FACTOR FOR EFFICIENCY

Syctom is developing close relationships with its members on a daily basis, based on dialogue and consultation. Its approach concerns both the operational functioning of the service, prevention and awareness, as well as the construction of a common public service vision and shared objectives. This rationale, which aims in particular to develop coordinated actions to boost efficiency, has been reinforced in the current pandemic situation where it seems essential to rethink the methods of intervention by developing partnerships and involving intermediaries, all the more so in a crisis. Syctom intends to augment its role of supporting local authorities to accelerate the ecological

transition and contribute to the development of an ambitious waste reduction policy in its territory.

During the 2015-2020 period, Syctom supported

### **267 local projects** amounting to €11.6 million:

these actions were aimed at prevention, food waste management, improvement of selective collection, promotion of reuse and support for the development of recycling centres.

### SYCTOM IN THE ROLE OF A COORDINATOR

Aware of Syctom's expertise and its outreach capacity, the Government and the Île-de-France region entrusted it, in early 2019, with a coordination mission aimed at achieving ambitious objectives in terms of waste reduction and recycling. It is through the Regional Waste Prevention and Management Plan (PRPGD) that Syctom has undertaken to jointly develop an operational plan for the coordination of household waste prevention, collection and treatment.

Syctom made the preparation of this plan a part of its Great Challenge (see box) and launched this process on 10 July 2019. Convinced that improving the coordination of collection and treatment constitutes a powerful performance driver, Syctom wished to establish a dialogue with all the stakeholders, via a shared territorial diagnosis. The collection of qualitative and quantitative data made it possible to better understand the territorial and operational organisations, and thus to identify the coordination and optimisation levers to be deployed.

### A CHARTER FOR A COLLECTIVE COMMITMENT

Syctom set up a specific working group, made up of representatives of its member local authorities and their collection organisations, to draw up a shared understanding of everyone's expectations, identify the constraints and the solutions to be put in place. Waste collection and treatment, for example, are two distinct areas of expertise, exercised by different local authorities, which can sometimes interfere with each other. As a result of this working group, a charter of good practices was drawn up: it aims to formalise the role of each stakeholder, their mutual commitments and the corrective procedures to be adopted in the event of a failure. Currently being signed, these charters constitute the first step of the future Operational plan to coordinate Prevention, Collection and Treatment planned in the PRPGD project, as they help to understand the current organisation of collections as well as to harmonise them.

### WHAT IS THE GREAT CHALLENGE ALL ABOUT?

produced in its territory, Syctom co-built an action plan in 2019 with waste production and treatment chain (EPTs, Region, associations, representatives of household producers or large producers, stakeholders in treatment and

divided into seven areas, focusses in particular on prevention and awareness, which are the catalysts of behavioural change. This original approach also made it possible to boost a collective momentum that is essential to build an overall vision of the issues and to propose coordinated solutions to meet a major challenge: reducing the volume of household waste produced in Syctom's territory by 450,000 tonnes by 2025.

### AN ESSENTIAL COLLECTIVE MOBILISATION

To build on this momentum, target-based contracts shared with the member local authorities are being drawn up. They can help assess the capacity of each of them to implement measures to promote waste prevention, while taking into account their specificities. These "tailor-made" targetbased contracts will trigger new levers of prevention and awareness. They will also give a concrete form to the commitment of the territories with expected results and a defined timetable in a spirit of renewed partnership with

The ambitious action plan of the Great Challenge can only be implemented with the involvement of all and the active mobilisation of all the stakeholders. To overcome the challenges of ecological transition, Syctom is determined to play the role of leader and coordinator entrusted by the Government and the Île-de-France region, even whilst respecting the financial trajectories set.

> collaboration with the local authorities, in view of coordinating a network of waste managemen stakeholders in Syctom's territory. This approace involves, in particular, increased support in terms of bio-waste management and awareness about sorting, through support for equipment and preventive actions. It also translates into the objectives of the Great Challenge, within the framework of the PRPGD.

### yrille Derouet

Prevention and awareness director, puty general directorate for mobilisation, public and territories



# CONSTANTLY IMPROVING THE MODERNISATION AND INTEGRATION OF OUR FACILITIES

The construction site in the new Energy Recovery Unit in Ivry/Paris XIII represents a two-fold challenge on a daily basis: we are building a state-of-the-art facility, right next to the largest Syctom processing centre in operation, therefore with high priority, and this in a dense urban environment. To manage the very limited land holdings, we have provided companies with a storage and pre-assembly area on the banks of the Seine, which also allows the delivery of certain large equipment by the river.

Bruno Bernier

I lyry/Paris XIII project manager

General directorate for technical services

In an effort to give an impetus to innovation in waste treatment, Syctom has set ambitious objectives for itself: reducing incineration, improving energy and material recovery, putting an end to the landfilling of recoverable waste. To achieve this, it is committed to increasing the performance of its sites in line with regulatory changes. The continued modernisation of its facilities is a pillar of this approach.

### IVRY/PARIS XIII: THE NEW ERU TAKES SHAPE

The impressive worksite which is in the process of replacing the end-of-life centre in Ivry/Paris XIII with state-of-theart equipment resumed in late April 2020, after a six-week shutdown due to the pandemic.

The new energy recovery unit under construction should be operational in early 2024. It will treat 350,000 tonnes of residual household waste per year by incineration, i.e. 50% less than the current facility, with a view to waste reduction, which can be achieved by improving sorting and recycling and increasing the separate management of food waste. On this site, the reception and storage pit for residual household waste (RHW pit), the first visible component of the future facility, was built in early 2020. Given its distinctive geometry, this high-rise structure benefited from "sliding formwork", an innovative technology allowing rapid construction. Completed in six weeks, it enjoys guaranteed strength and impermeability thanks to uniform concreting. After a little more than two years devoted to preparatory work and structural work, the construction of the new Energy Recovery Unit (ERU) will enter a new phase in 2021 devoted to the assembly of waste treatment process equipment.

### TRANSFORMATIONS IN URBAN AREAS

This profound change is taking place under the gaze of the artist Stefan Shankland, commissioned since 2012 by Syctom to lead a High Artistic and Cultural Quality (HQAC) approach for the lvry/Paris XIII centre. Structured around the concept of the "Museum of the Changing World" (MMM), this project brings together a diversity of views and expertise revolving around the phenomena of transformation, on an industrial and urban scale. Since 16 December 2020, the MMM has been accessible via the website museedumondeenmutation. com. Through video performances, works or documentary fictions, the public can discover this changing environment and thus appreciate the project from a new angle.

On the Etoile Verte site in Saint-Ouen-sur-Seine, the issue of integration into the environment is also one of Syctom's major concerns. This is evidenced by the major architectural and landscape renovation programme initiated in this waste-to-energy centre, now located in the heart of the new eco-district of the Docks, and therefore in close proximity to residents. The works, which will be completed in 2024, aim in particular to eliminate odour and noise pollution and to enhance the visual integration of the site, in particular through greening. In this respect, during the roofing of the new building dedicated to the treatment of bottom ash, the first trees were planted in February 2020 in the large planter that runs alongside the building.

### OPTIMISING ENVIRONMENTAL PERFORMANCE

In Saint-Ouen-sur-Seine, the flue gas treatment system is also being modernised. The new system implemented in 2019 on a first incineration line makes it possible to better capture pollutants from the combustion of household waste and considerably reduce the plume of smoke leaving the stacks. This system, which will be extended to the other two



the culmination of the plan to adapt Syctom sites to the extension of sorting instructions.

### DEVELOPING CLOSE TIES WITH LOCAL RESIDENTS

The urban integration of facilities is a key challenge for Syctom. In addition to the architectural aspect, there are other issues to be addressed, such as logistics and transport management or the environmental impact of its activity. Syctom is establishing a genuine dialogue with the residents to improve the acceptance of its projects, which requires diverse interfaces adapted to the audience concerned. In this perspective, it regularly opens its doors to the general public to share and promote its know-how. Syctom also works with "Sentinelles", groups of residents and active volunteers, to monitor the activity of the centres and report any possible nuisance.

treatment lines in 2021 and 2022, has yielded very positive initial results on the environmental front. The new industrial wastewater treatment system, currently being implemented, will improve the site's environmental performance in terms of aqueous discharges.

Anticipating the implementation of the extension of sorting instructions, which comes into force in 2022, Syctom also wished to modernise the selective collection sorting centre in Nanterre. Closed since February 2019 for works, it will see its treatment capacity increased from 40,000 to 55,000 tonnes/year and will be able to process all plastic and metal packaging. This latest generation centre, equipped with quick and precise sorting robots, will reopen in the summer of 2021 and will mark the culmination of the major plan to adapt Syctom sites to the extension of sorting instructions.

When it reopens in summer 2021, the sorting centre in Nanterre will be able to treat the waste

of 1.6 million inhabitants

living in Hauts-de-Seine and Paris to recycle it.

### ROMAINVILLE/BOBIGNY:

### A PROJECT TO BE RELAUNCHED IN 2021

The reconstruction of the household waste treatment centre in Romainville/Bobigny was the subject of a broad public consultation in 2017. The primary aim was to set up a pre-treatment of the RHW stream received by drying, in order to optimise its transport by water to Syctom's ERUs. On 6 January 2020, the Syndicate Committee decided to postpone the award of the contract, taking into account the investment costs to be incurred on the eve of a change of term of office, as Jacques Gautier did not stand for re-election as President of the syndicate.

At the end of 2020, Éric Cesari, President of Syctom, decided, in agreement with the elected representatives of the territory, not to follow up the public procurement procedure due to the changing context of waste management. However, a new constructive dialogue forged with the actors in the territory made it possible to continue the discussions. Syctom will launch a new project for this historic site in 2021.

### 2020: A YEAR OF CONSTRUCTION

Despite disruptions caused by the Covid-19 crisis - with the stoppage of work in March and April - the year 2020 was crucial for the implementation of Syctom's structural projects. A look at the construction sites in Ivry/Paris XIII, Nanterre and Saint-Ouen-sur-Seine.

### **IVRY/PARIS XIII**



In Ivry/Paris XIII, a new energy recovery unit will be set up by 2024.









### **NANTERRE**







In Nanterre, the sorting centre is being modernised in order to increase its sorting capacities to adapt to the extension of sorting instructions to all packaging.

### **SAINT-OUEN-SUR-SEINE**







In Saint-Ouen-sur-Seine, major works are underway at the Etoile Verte to renovate its architecture and landscape and to improve its flue gas treatment system.



## INNOVATION FOR ENERGY TRANSITION

The project to capture the CO2 present in incineration flue gases is being led by an international and multidisciplinary research group. At this stage, we have successfully demonstrated that the photobioreactors developed are capable of capturing CO2 with three to five times greater efficiency than the best technologies available on an industrial scale. We have also shown that the soon to be patented processes allow a double recovery of biomass sourced via CO2: this biomass will be used to create polymers in order to produce biomaterials, but also to develop biofertilisers, which can be used for urban cultivation or green spaces. The unique feature of this research project is its interaction with Syctom's industrial issues: this spurs us to innovate while taking into account the constraints related to the activity and the urban integration of its ERUs.

Naoufel El Bahraoui Setec Energie Environnement / École des Mines de Paris In 2020, Syctom continued its actions to achieve ecological transition through multiple innovation projects. These actions have the common objective of limiting the environmental impact, and aim not only to reduce greenhouse gas emissions, but also to turn waste treatment into a source of recovered energy.

### THE CHALLENGE OF RECYCLING FOOD WASTE

Anticipating the development of source sorting of organic waste, Syctom has been investing for several years in the quest for treatment and recovery solutions. A first innovative project has already been launched to create a methanation unit in the port of Gennevilliers by 2024-2025. Implemented with Sigeif (Intercommunal Syndicate for Gas and Electricity in Île-de-France), this project will enable to treat up to 50,000 tonnes of food waste per year and produce biogas, recovered by injecting biomethane into the natural gas distribution network, GRDF. In April 2020, a public invitation to tender was issued for the award of a concession contract. The concession holder will be responsible for the design, construction and operation of the unit for 15 years. Applications were received in June 2020 and contract award is scheduled for late 2021.

The Cométha project - led by Syctom and SIAAP - for the co-treatment of solid and liquid waste - residual organic fractions from household waste and sewage sludge - is also based on the recovery of the energy potential of organic materials to generate optimal production of biomethane and synthetic methane, and thus contribute to the energy transition. After phase 1 dedicated to R&D, phase 2 consists of testing new treatment methods on the field, by building and operating two pilot units. These miniature industrial facilities, which will begin to be installed in 2021 on two SIAAP sites, should make it possible to confirm the feasibility of the approach and to assess its expected performance. At the end of phase 2 scheduled for 2023, the two public operators will have to decide on the future of the project, which includes the construction of an industrial unit in phase 3.

# 140,000 tonnes

this is the estimated weight of household food waste to be treated by Syctom in 2025.

A formidable challenge for which it is preparing itself.

### FOR GREENER RIVER TRANSPORT

Syctom is also committed to limiting the environmental impact of transporting waste, particularly by water. The use of hydrogen, already studied and operational for land transport, could constitute an interesting alternative and make it possible to reduce  $CO_2$  and fine particle emissions. With this in mind, Syctom is participating in the transnational programme H2SHIPS, developed within the framework of a European Call for Projects for the decarbonisation of transport. H2SHIPS is based on three pilot operations in France, Belgium and the Netherlands. Syctom is investing in this particularly through a specific study on the possibility of converting the motorisation of freight barges to hydrogen at the future facility in Romainville.

### **VALUABLE TREATMENT RESIDUES**

In 2016, Syctom launched an international research programme intended to use the  $CO_2$  from the flue gases produced by the incineration of household waste to grow microalgae and eventually produce bioplastics and biofuels. This process also reduces carbon emissions from an ERU such as the Étoile Verte in Saint-Ouen-sur-Seine, chosen as an experimental laboratory. Following the selection of the algae strains and the design of the photobioreactors, the first pilot unit was built and commissioned in February 2020 in the laboratory of the University of Almeria, Spain. After verifications and adjustments, full-scale tests carried out in Saint-Ouen-sur-Seine will give the green light to a possible large-scale industrial deployment of this technology with strong development potential.

# COMÉTHA: A SEEDBED FOR EXPERIMENTING INNOVATIVE PROCESSES

The Cométha project aims to limit greenhouse gases by recovering the maximum amount of carbon contained in sources of liquid and solid waste. Led by Syctom and SIAAP, this innovation partnership will jointly treat the sludge and grease from wastewater treatment, the residual organic fraction from household waste that has not been composted, and horse manure. The comethanation of inputs and downstream treatments will allow the production of renewable and recovery energy, which is injected into natural gas distribution networks to power vehicles, heat premises, produce electricity, etc. In addition, Cométha implements innovative processes for the recovery of nutrients (nitrogen and phosphorus).

### SYCTOM, A PATRON OF THE SCIENCES

In order to help assess the impact of the environment on health, Syctom has since 2018 contributed to a study conducted by the Autism Foundation in partnership with ENS-Lyon. This study explores the possible links between autism and heavy metals. A new stage of research based on the study of milk teeth was developed in 2020. As a matter of fact, milk teeth grow in successive layers, like tree rings, and can trap the chemical information of the body. Analysis of this precious material, which should begin in 2021, will help characterise the chemical compounds present, as well as the duration of exposure to them.



Use of microalgae to capture the CO<sub>2</sub> contained in incineration flue gases.



# INVENTIVENESS AND LEADING BY EXAMPLE TO PREPARE FOR TOMORROW

Taking into account the challenges of sustainable development presupposes the immediate implementation of new processes, but also the anticipation of future developments: financial, technological and legislative. It is with this vision that Syctom is taking part in the public debate, defending the convictions of a public player committed to the circular economy and fully aware of its responsibilities towards future generations.



# PROMOTING THE FINANCIAL BALANCE OF THE SECTOR

The increase in the general tax on polluting activities (TGAP) is unfair because it penalises incineration in the same way as landfilling. In fact, this tax



does not take into account the environmental performance and energy efficiency of the facilities, or the more virtuous nature of energy recovery, which has nevertheless proven its effectiveness in these times of crisis. In addition, it represents a tax penalty for local authorities which are nevertheless mobilised for sustainable waste management. It will have a serious impact on local finances, which are already weakened. It is therefore essential to bring about a change in the overall economy of the waste sector, by encouraging the use of secondary raw materials by manufacturers and the ecodesign of products.

Hervé Marseille Syctom's Board Member, Senator of Hauts-de-Seine Despite a context of uncertainty, linked to the fiscal implications of the strikes and the health crisis of 2020, tax pressure and fluctuations in the recycled materials market, Syctom confirmed its commitment to a green financial strategy.

# FINANCIAL EQUATION: SQUARING THE CIRCLE

Syctom's finances came under severe pressure in 2020, as it had to cope not only with a drop in revenue, but also an increase in spending.

During the strikes at the start of the year, the suspension in the sale of steam to the CPCU resulted in a loss of earnings, while Syctom's obligation to implement alternative solutions to treat household waste in its centres incurred additional costs.

Likewise, during the health crisis, the drop in tonnages treated caused a decline in revenue, whereas fixed operating costs remained unchanged.

The total bill amount of €23.2 million was all the more difficult to bear as it came in an already squeezed financial context, marked by tax developments unfavourable to Syctom. The current term of office will have to face a heavier

tax burden for Syctom from 2021, due to the increase in the "waste" component of the general tax on polluting activities (TGAP) laid down in the finance law for 2019. Between 2023 and 2028, the additional cost is in fact estimated at €30 million per year on average. Apart from the financial burden, the syndicate also pointed out the "injustice" of this increase in TGAP rates, which no longer recognises Syctom's environmental efforts, made nevertheless at the cost of heavy investments.

# RECYCLING OF MATERIALS: UNCERTAIN PROSPECTS

The scissor effect – higher costs, reduced revenue – was accentuated by the overall decline in revenues earned from the sale of materials from selective collection: recovered paper and cardboard, recycled plastic, and wood and bulky waste found few buyers on the markets, due to their lower profitability.

The fall in material prices started in 2017 and worsened in 2020 for two major reasons related to the pandemic. First, the slowdown in economic activity, particularly in the construction and automotive sectors, weighed on the demand for recycled materials. The fall in oil price – and consequently in the price of virgin plastics – also affected the competitiveness of recycled plastics.

Given this challenging context, the recycling sector - an essential link in the circular economy - must be sustained and revitalised with the simultaneous introduction of measures to promote the eco-design of products.

### A DELIBERATELY GREEN FINANCIAL STRATEGY

Despite the economic difficulties encountered, Syctom has embarked on a virtuous financial strategy for several years, which should enable it to finance its multi-year investment plan (1.4 billion investment for the period 2018-2028), even whilst fulfilling its ambitious environmental commitments. In view of the funding ceilings applied by the banking sector and the attractiveness of the bond market, Syctom gradually turned towards the latter, with the intention of issuing green bonds.

To do this, it had to go through a number of steps: first, obtain Standard & Poor's A+ rating, which attests to its financial health and guarantees it to investors; second, obtain the validation of an extra-financial agency (Vigeo), which testifies to the efforts made by Syctom to work towards the United Nations Sustainable Development Goals (SDGs). Vigeo's assessment is based on quantified criteria that take into account both changes in CO2 emissions and the means deployed by Syctom to encourage recycling or even reduce the use of hazardous materials in industrial processes. Each year, an assessment must be carried out to guarantee the sustainability of the environmental commitments made.

# BANKING MARKET *VERSUS* BOND MARKET: STATE OF PLAY AND OUTLOOK

Until 2012, the local authorities relied exclusively on the banking market to meet their funding requirements; but, since then, they have gradually turned to the bond market, where it is now cheaper for them to borrow. Although only 26 local authorities used it in 2020, for a total amount of €4 billion, this emerging model still represents 25% of the annual funding requirements of the local authorities. Thus, 50% of these 4 billion euros have the "green" certification.

Syctom thus issued green bonds for the first time in 2020 and raised  $\[mathbb{e}\]$ 70 million. A first step that gives a new dimension to its financial strategy, with the objective of 50% green debt by 2025.

Syctom also received the Gold Trophy for Financial Leaders 2020, in the "public sector financial management" category. This award recognises the modernisation of its accounting functions and the implementation of green financing.

# €175 million

This is the total amount of green loans contracted by Syctom (€105 million from the banking market in 2018-2019 and €70 million on the bond market in 2020)

We are the first waste treatment syndicate to have issued bonds, which are also green. We have initiated a profound transformation in our financial strategy, made possible thanks to Syctom's influence well beyond the Ile-de-France region. International investors read the reports of rating agencies, so we must maintain our efforts and our exemplary leadership to remain attractive.

Maxence Van Steirteghem
Finance director,
Deputy general directorate
for resources and means



# AFFIRMING AND SHARING ITS VISION FOR CHANGING THE LEGISLATION

With "Zero waste, zero waste territory" certification, Syctom is committed to an innovative approach to prevention, reuse of objects and recycling of waste.



Through its field of action, and together with its partners, Syctom drives behavioural change, facilitates sorting and promotes reuse. These are essential levers for us to collectively turn the corner towards the circular economy. This proactive policy for better waste management fully echoes the objectives defined in the Regional Waste Prevention and Management Plan (PRPGD) of the Île-de-France Region adopted in 2019 and the Regional Circular Economy Plan (SREC) adopted in 2020. This concerted action is also reinforced by the new guidelines of the French Anti-Waste Law for a Circular Economy (AGEC law) passed in 2020.

### **Sophie Deschiens**

Syctom's Board Member, Regional councillor of Île-de-France, special delegate For 30 years, Syctom has developed unique expertise, which has led it to play a driving and unifying role to achieve sustainable progress. Syctom intends to advocate its vision of responsible waste management to national and international bodies, and to influence the public debate.

### A NEW LAW THAT FOCUSES ON PREVENTION

The Anti-waste law for a circular economy (AGEC) was enacted on 10 February 2020. Syctom welcomed the progress it represents, stemming from recommendations it had the opportunity to make during the drafting of the Roadmap for the circular economy by the Ministry of Ecological Transition. This new law heralds significant breakthroughs, particularly in terms of prevention, fight against illegal dumping, and consumer information and awareness about responsible purchasing. These advances, in line with the vision long backed by Syctom, enrich its purpose and demonstrate the relevance of the waste prevention actions it carries out with its member local authorities and residents.

# THE DEPOSIT SYSTEM, STILL AT THE HEART OF OUR CONCERNS

During the parliamentary debates on the AGEC law, Syctom rallied together with many local authorities to fight against the establishment of a deposit system for plastic beverage bottles for recycling. Through a joint declaration, they took a stand against this approach which they believe hinders the momentum generated in favour of a more exhaustive sorting of waste and a reduction in the production of plastic. The arguments have been heard: the deposit system has in fact been postponed to 2023, giving local authorities time to prove their ability to meet European recycling targets, without adopting this system (see box).

# INTEGRATING PLASTICS INTO THE LOGIC OF THE CIRCULAR ECONOMY

In spring 2020, Syctom signed the "European plastics pact" along with 14 Member States, companies and NGOs. To support national and European strategies, the signatories set themselves ambitious targets for 2025: to make all single-use packaging and plastic products reusable and recyclable or to increase recycling capacities by at least 25 percentage points. These ambitions of course echo those that Syctom has been advocating to the European Union for three years: to promote better information on the composition of plastics but also to make manufacturers aware of the importance of ecodesign.

### DEPOSIT SYSTEM: THE ISSUES AT STAKE

Stipulated in the AGEC law, the establishment of a deposit system for recycling plastic beverage bottles was finally postponed to 2023 thanks to the mobilisation of the local authorities and stakeholders in the waste sector. Indeed, this system goes against the grain of the enormous investments made by local authorities to deploy the extension of sorting instructions (ECT) to all packaging and the new sorting practices adopted by the citizens. In addition, removing the beverage bottles from the collection of yellow bins undermines the economic balance of the public waste treatment service, which is deprived of the resale of recyclable materials. Finally, the introduction of this guideline suggests that plastics are infinitely recyclable, which is not the case.

Each year,

# 16 billion plastic bottles

are produced in France, i.e. 250 bottles per person.

Passed in February 2020, the Anti-waste law for a circular economy (AGEC law) sets out several ambitious targets, in addition to European regulations.

# Regulatory deadlines laid down by the AGEC law



In 2027 10%

of reuse



In 2035 **65%** 

of waste reused or recycled in 2035

By 2024 100%

Generalisation of the source sorting of bio-waste



77%

Collection target for recycling of plastic beverage bottles



By 2030 -**50**%

> reduction in the number of singleuse plastic bottles

By 2040

In 2029

90%

Achieve zero single-use plastic



# CO-BUILDING AND INTENSIFYING OUR ACTION INTERNATIONALLY

At AFD, we help implement France's development and international solidarity policy. Our objective is to support our partners in the fight against the effects of climate change, for environmental protection, the preservation of peace and the reduction of social and gender inequalities among people in developing countries, thereby fulfilling France's commitment to SDGs. Our mission takes the form of loans, grants and expertise on various themes, including waste management. In recent years, there has been an increase in the number of projects funded in this sector. This is in particular due to a greater awareness of the impacts of poor waste management on climate, biodiversity society and health. Having Syctom as one of our partners means fostering the complementary nature of our approaches. Syctom positions itself as a peer with local authorities or States, speaking a common language, sharing its expertise and its field experience. That is why it is able to anticipate the organisational, technical and financial needs of the projects, to visualise the milestones to be put in place and to make a contribution to sustainable urban development.

Alexandra Monteiro
French Development Agency (AFD)

Since 2014, under the Oudin-Santini law, Syctom has contributed to France's official development assistance by supporting international solidarity projects. It also provides technical expertise abroad, to local authorities or to States. The year 2020 was an opportunity to rethink its strategy so as to achieve optimisation.

### A PIONEERING AID SCHEME

Actively engaged in international support for the last six years, Syctom wished to evaluate its action in 2020, in order to draw up an initial assessment and to develop its intervention approach for the new term. Led by the association Prospective et Coopération, the study highlights the relevance of the scheme and its complementary action with the schemes of other public development assistance actors: in fact, it allows both to co-finance ambitious projects and subsidise smaller ones that are not eligible for other schemes. The assessment also reveals the key place that Syctom occupies in the ecosystem of international action and the mobilisation of 1% Waste, representing 70% of the funds raised in 2017. Based on the recommendations of the

report, Syctom is now working according to a new, assertive and coherent strategy, built on its two pillars of intervention: funding projects carried out by third parties locally (local authorities and NGOs) in developing countries and sharing its know-how through participation in international initiatives and peer counselling.

### **FOSTERING LOCAL SOLUTIONS**

In 2020, the direct assistance actions carried out by Syctom were bolstered by the support of donors who granted it €925,000 in subsidies for the implementation of two projects. In the Philippines, Syctom has been working for three years alongside SIAAP, in collaboration with the Metropolis of Manila, in order to offer a replicable solution to divert a sufficient quantity of organic waste from saturated landfills. The aim is also to reduce the dumping of household waste in the Pasig River, rehabilitated as part of a UNESCO programme. This project is co-financed by the French Development Agency.

Syctom was declared the winner of a call for projects launched by the Ministry of Economy, Finance and Recovery for its scheme to set up composting in the city of Akkol. The aim is to further reduce the quantities of organic waste destined for the landfill due to a lack of recovery. With this pilot project, Syctom will return to Kazakhstan where it has already worked with local authorities in charge of waste treatment.

# DISSEMINATING ITS EXPERTISE ABROAD FOR A MORE EFFECTIVE ASSISTANCE

In 2020, Syctom also participated in the French Initiative for International Essential Services (IFSEI) to build the catalogue of French organisations able to deliver services abroad in the fields of sanitation and waste treatment. It also contributed to two international collective publications: the white paper "Urban sanitation and waste management for all" published on the sidelines of the G20 summit and "Intersecting" which brings together the reflections of experts on urban infrastructures to be rethought in these times of pandemic.

In both cases, the public waste treatment service in France stood out for its expertise and its uniqueness.

Between 2015 and 2018, Syctom funded 30 projects to improve waste management in developing countries, of which 15 are in progress, for a total amount of

€2,645,443







### **Publication Director**

Éric Cesari

Editor-in-chief

Martial Lorenzo

Communication director

Véronique Menseau

Coordination

Solène Patron

Photo credits

© Syctom / Florent Aceto, Franck Badaire, Stéphane Chalmeau, Black Euphoria, Mathieu Génon, Natacha Gonzalez, Bertrand Guigou, Konrad K, Gilles Petitpas, Didier Raux, studiof2c;

- © Yann Rossignol; © AFD; © Kadence;
- © SIGEIF, Patrice Diaz; © Solidarité technologique;
- $\hbox{@ GRET; @ Shutterstock}\\$

Drafting-Design-Production

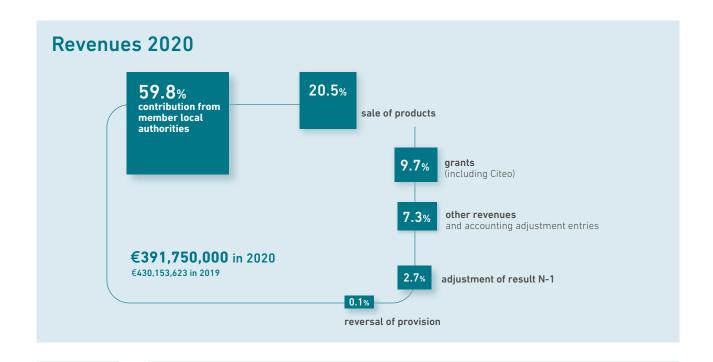
stratéact'

ISSN 2781-0127 Printed by Merico Delta Print on 100% recycled Respecta paper June 2021

# TECHNICAL AND FINANCIAL REPORT 2020







### FEES UNCHANGED

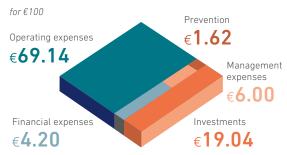
The pricing introduced in 2016 was maintained in 2020, offering member local authorities stability in their contributions and encouraging the development of sorting and separate collection of streams for material recovery.

Population share: **5.6 €/inhabitant** 

Tonnage share:

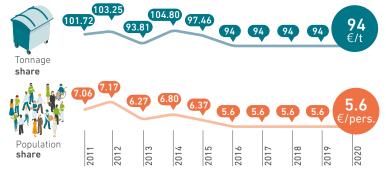
- Household waste and bulky objects: 94 €/t
- Selective collection: 0 to 30 €/t based on performance; grants for quality collections of 20 €/t beyond 25 kg/ pers./year to 50 €/t beyond 55 kg/pers./year
- Biowaste: **5 €/t**

### USE **OF THE FEES**



# CHANGES IN THE FEE AMOUNT FOR HOUSEHOLD WASTE AND BULKY OBJECTS

Calculated pro rata from the quantity of waste brought to Syctom and from the population of each municipality or inter-municipal grouping.



# **FEES AND GRANTS PAID**

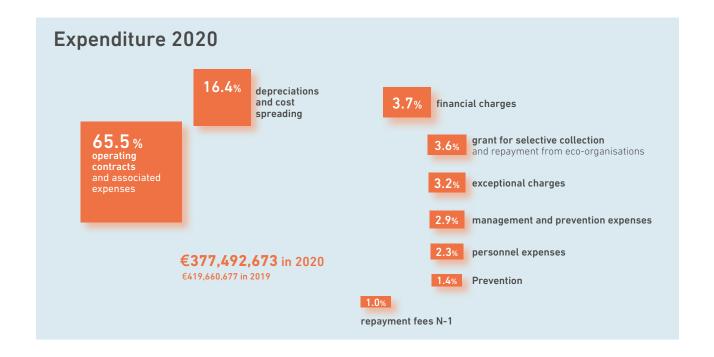
REVENUE STRUCTURE

Income from fees stood at  $\pmb{\epsilon}$ 234.1 million and grants paid to members amounted to  $\pmb{\epsilon}$ 13.9 million (stable compared to 2019). Fees declined by 3.7% following the drop in tonnages. In 2020, the fees charged from member local authorities accounted for 59.8% of the operating revenues, followed by the sale of products (20.5%) and grants from eco-organisations (9.7%).

SALE OF PRODUCTS AND SUPPORT FROM ECO-ORGANISATIONS Sale of products stood at €80.3 million. It reported a decline due to the decrease in products from material recovery. This is due to a lower recovery of selective collections and bulky items owing to the decrease in incoming tonnages as well as a collapse in buy-back prices.

Support paid by eco-organisations and subsidies fell slightly and stood at **£38 million**. In fact, Citeo grants

for the sorting of packaging as well as grants for energy recovery dropped. This is due, on the one hand, to sorting performance, which was less efficient in 2020 due to the health crisis and, on the other hand, to the reduction in incineration rate, which determines the grant for energy recovery. Likewise, Citeo's grants for newspapers / journals / magazines and paper mix decreased due to the drop in tonnages in these two streams.



# OPERATING COSTS ON A SLIGHT DECLINE

**€247.2** MILLION

Direct operating expenses stood at €247.2 million and continued to be the main expense item (65.5%). They declined due to the decrease in tonnages recorded during the health crisis.



€**62.0** MILLION

Depreciation charges were stable and amounted to €62 million. With the recovery of the 2019 investment surplus (€59.60 million), self-financing stood at €121.60 million for 2020.

Continued borrowing in 2020, to the tune of  $\[ \epsilon \]$ 155 million (compared to  $\[ \epsilon \]$ 243 million the previous year), was also used to finance equipment costs.

The main source of finance continued to be borrowing, accounting for 53% of all investment revenues.

# PERSONNEL COSTS

€8.8 MILLION

Payroll was maintained at 2.3% of all operating expenses. Personnel expenses were stable in 2020 and amounted to &8.8 million.

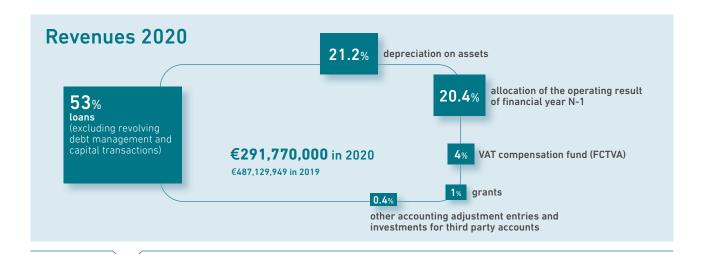
At the end of 2020, Syctom's workforce included 126 permanent jobs.

# WASTE PREVENTION PROGRAMME

€5.3 MILLION

The amount for the prevention programme ( $\mathfrak{C}5.3$  million) was halved due to the health crisis. The home composting and awareness-raising actions carried out by Syctom's teams of eco-facilitators were in fact suspended or reduced to comply with the health guidelines in force.

In all pages of the technical and financial report, the data has been rounded off for the sake of clarity, which explains possible, negligible discrepancies with the totals shown.



# DEBT 2020: CHANGE IN INDEBTEDNESS

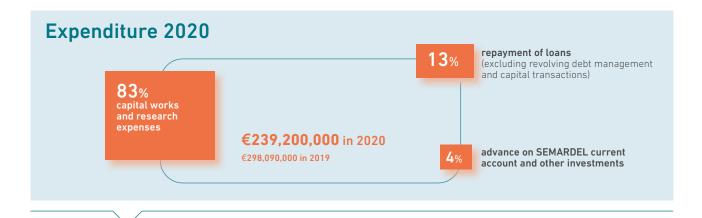
At the end of 2020, Syctom's outstanding debt stood at  $\ensuremath{\in} 729$  million, marking a 21% jump compared to the previous year. Syctom continued to resort to debt, which began in 2018, to finance the deployment of its equipment plan.

In 2020, Syctom raised €155 million including:

• €70 million worth of bonds. These are Syctom's first issues, distributed as *green bonds*. We were able to achieve very good financial terms (average rate of 0.7%) by maintaining the "A+ rating with a stable outlook" from Standard & Poor's.

- €30 million drawdown of multi-year financing from the European Investment Bank (EIB). At the end of 2020, the amount available was €142 million, which can be raised by 2024.
- €55 million raised as variable rate loans, which make the debt structure more flexible and give us options for early repayment in case a project is postponed.

In addition, Syctom continues to have a total of €210 million at the Banque des Territoires. This guarantees the necessary liquidity.



# INVESTMENT: CONTINUATION OF PROJECTS UNDERTAKEN

**€199.9** MILLION

Capital expenditure continued to represent the main expenditure item (83% of the total excluding accounting transactions). This enabled to:

- continue the reconstruction work at energy recovery centre in lvry/Paris XIII;
- continue the renovation of the Etoile Verte centre in Saint-Ouen-sur-Seine;
- continue the works to improve and bring facilities into conformity with the extension of sorting instructions;
- extend the assistance to the contracting authority for the construction of the new centre in Romainville/Bobigny;
- carry out the research, testing and laboratory trial phase, within the framework of the Cométha project with SIAAP;
- pay grants as part of the 2015-2020 prevention plan for setting up waste collection centres and recovery centres and purchasing sorting tables in schools and equipment to prevent food waste.

# Investment programme by site

# WORKS RELATED TO **EXISTING FACILITIES** OR TO **NEW PROJECTS**

in €M incl. tax  SITES AND NATURE OF WORKS		IMPLEMENTATION PERIOD	WORKS FINANCED IN 2020
CONTINUOUS IMPROVEMENT AND ADAPTATION OF CENTRES TO THE EXTENSION OF SORTING INSTRUCTIONS*			40.9
IVRY/PARIS XIII	reconstruction of the energy recovery centre	2007-2027	122.4
ÉTOILE VERTE IN SAINT-OUEN- SUR-SEINE	project for the urban integration of the centre - works for landscaping, architectural redesign and flue gas treatment	2012-End 2024	28.8
OTHER PROJECTS (ROMAINVILLE, COM BIOMETHANATION PROJECT WITH SIGE			4.7
SUPPORT PLAN FOR WASTE PREVENTI	ON AND SORTING OPERATIONS		1.3
OTHER CAPITAL EXPENDITURE			1.8
GRAND TOTAL		199.9	

# \* WORKS FOR THE **CONTINUOUS IMPROVEMENT AND COMPLIANCE** OF SYCTOM FACILITIES

in €M incl. tax	WORKS FINANCED
SITES	IN 2020
NANTERRE	21.4
IVRY / PARIS XIII	6.1
ISSÉANE IN ISSY-LES-MOULINEAUX	5.7
L'ÉTOILE VERTE IN SAINT-OUEN-SUR-SEINE	3.3
PARIS XVII	3.3
PARIS XV	0.6
ROMAINVILLE	0.3
SEVRAN	0.1
TOTAL	40.8

# ANNUAL REPORT ON THE PRICE AND QUALITY OF THE PUBLIC WASTE DISPOSAL SERVICE

Pursuant to Decree No. 2015-1827 of 30 December 2015 laying down various provisions for adaptation and simplification in the field of waste prevention and management.

This document will be submitted for vote to the Syctom Syndicate Committee, the metropolitan agency for household waste, during its meeting on 18 June 2021.

## **TREATMENT OF TONNAGES**

### **SYCTOM TREATMENT UNITS**

AND TONNAGES TREATED

in tonnes

3 INCINE CENTRE WITH EN RECOVE	S IERGY AUTH	IORISED TECHNI PACITY CAPAC	
ISSÉANE	510	0,000 510,00	00 <b>442,401</b>
IVRY / PARIS XIII	730	700,00	00 <b>636,738</b>
ÉTOILE VERTE	650	0,000 600,00	5 <b>52,350</b>
TOTAL			1,631,489

6 SORTING CENTRES			QUANTITIES RECEIVED
ISSÉANE	30,000*	17,000	17,177
PARIS XV	32,200	31,500	24,073
PARIS XVII	45000	45,000	39,209
ROMAINVILLE	55,000	53,000	49,344
SEVRAN	20,000	19,000	17,403
NANTERRE (UNDER CONSTRUCTION)	-	-	-
TOTAL			147,205

<sup>\*</sup>including 7,500 t of transfer authorised

WASTE RECEPTION CENTRES	QUANTITIES RECEIVED
GENNEVILLIERS	12,156
MEUDON	8,782
NANTERRE	13,906
ROMAINVILLE	5,691
SAINT-OUEN	506
27 MOBILE WASTE RECEPTION CENTRES	2,180
TOTAL	43,221

# **EXTERNAL UNITS** USED BY SYCTOM AND TONNAGE TREATED

in tonnes

FOOD	
WASTE	QUANTITIES
PARIS 19 <sup>TH</sup> (75)	21
NOYEN-SUR-SEINE (77)	1,010
USSY-SUR-MARNE (77)	1,327
ETAMPES (91)	53
VERT-LE-GRAND (91)	157
STAINS (93)	6
VALENTON (94)	25
HARTENNES-ET-TAUX (02)	800
THENNNELIÈRES (10)	1,281
GAILLON (27)	55
VOLCKERINCKHOVE (59)	364
PASSEL (60)	869
JOIGNY (89)	24
KALLO (BELGIQUE)	63
TOTAL	6,056

11_	
INCINERATION CENTRES	QUANTITIES INCINERATED
ARGENTEUIL (AZUR)	30,077
CARRIÈRES-SOUS-POISSY (SIDRU)	6,177
CARRIÈRES-SUR-SEINE (SITRU)	8,526
CRÉTEIL (SMITDUVM)	1,753
MASSY (SIMACUR)	635
MONTEREAU	267
MONTHYON	2500
OUARVILLE (SITREVA)	1,533
RUNGIS (RIVED)	2,710
SAINT-OUEN-L'AUMÔNE	745
SAINT-THIBAULT-DES-VIGNES (SIETREM)	56,755
SARCELLES (SIGIDURS)	15,963
THIVERVAL-GRIGNON (SIDOMPE)	466
VAUX-LE-PÉNIL (SMITOM LOMBRIC)	2,586
VILLEJUST (SIOM)	530
TOTAL	131,222

1.00	
SC* SORTING CENTRES	QUANTITIES RECEIVED
ANZIN	1,407
HARNES	512
LE BLANC-MESNIL (PAPREC/SITA)	15,542
LIMEIL (SITA)	23,851
VILLERS-SAINT-PAUL (SMDO)	125
TOTAL	41,437

<sup>\*</sup>SC: selective collection

<u>-</u> T		
BO* SORTING AND TRANSFER CENTRES	QUANTITIES RECEIVED (DIRECT CONTRIBUTIONS)	
BONNEUIL (TAÏS)	3,604	
BUC (NICOLLIN)	9,799	
CHÂTILLON (TAÏS)	7.831	
GENNEVILLIERS (PAPREC)	8,588	
GENNEVILLIERS (SUEZ)	27,670	
LA COURNEUVE (PAPREC)	44,144	
NOISY (DRT)	51,450	
PIERREFITTE (CDIF)	4,282	
LIMEIL (SUEZ)	826	
IVRY (CEMEX)	28,421	
GOURNAY	2,892	
GENNEVILLIERS (PAPREC)	Construction BO: 24,326	
IVRY (CEMEX)	Construction BO: 14,213	
TOTAL	228,046	
*B0: bulky objects		

HAZARDOUS OR NON-HAZARDOUS WASTE STORAGE FACILITIES	QUANTITIES
NHWSF BOUQUEVAL (REP)	11,298
NHWSF CLAYE-SOUILLY (REP)	100,890
OTHER NHWSF (PRIVATE CONTRACTS)	62,061
IWSE (PRIVATE BO CONTRACTS)	8 271



# **OVERALL ANNUAL REPORT**

NUMBER OF MUNICIPALITIES WITHIN SYCTOM'S SCOPE	85
NUMBER OF INHABITANTS WITHIN SYCTOM'S SCOPE	
Figures taken from the population census for 2018 with an estimated change for 2020	5,843,553
GROSS TONNAGES OF WASTE	
Household waste	1,723,272
Sweepings and green waste (in tonnes)	22,958
SELECTIVE COLLECTION (in tonnes)	
Packaging	181,065
Bulky objects	228,046
Waste reception centres	43,219
Food waste	6,077
Green waste	541
FEES	
Tonnage share (in €/t of household waste and bulky objects)	94

# FINANCIAL INDICATORS

Terms of operation of the disposal service entrusted to Syctom the metropolitan agency for household waste	n, Public contracts
Total annual amount of Syctom's waste treatment expenditure (total actual expenditure in the operating section of the 2020 administrative account – excluding provisions)	€311 million
Terms and conditions for financing the overall treatment service	Contribution from local authorities, ce Citeo aid for selective collection, sale of products
Terms and conditions for setting the special fee for the disposa of assimilated products	al not applicable
Annual amount for main treatment services paid under contract (excluding major maintenance and repairs)	ct €214.7 million incl. tax
Total annual amount of investment and operating expenses (excluding capital transactions)	€619.8 M incl. tax
Income from access rights to treatment and storage centres fo the local authority is the contracting authority for assimilated v	
Repayments for selective collection	Syctom grants <b>€1.1 million</b> Repayments for glass <b>€7.9 million</b>
Itemised amount of aid received from approved bodies	Citeo €34.4 million 0CAD3E €0.02 million Éco-Mobilier €3.6 million

# RECOVERY

# ENERGY AND MATERIAL RECOVERY

Population share (in €/pers.)



# ENERGY AND MATERIALS FROM INCINERATION

Electricity (IN MWH)	130,987
Steam (IN MWH)	2,678,880
Hot water (IN MWH)	39,311
Bottom ash (IN TONNES)	291,165
Ferrous scrap (IN TONNES)	36,565
Non-ferrous scrap (IN TONNES)	3 454



# RECYCLING FROM SELECTIVE COLLECTION (SC)

Plastics, paper, cardboard, steel and aluminium 126,675



RECYCLING OF BULKY OBJECTS (BO)
AND WASTE RECEPTION CENTRES
(IN TONNES)

Wood, scrap metal, large cardboard 153,959 boxes



ORGANIC COMPOST (IN TONNES)

5,722

# INCOME FROM MATERIAL RECOVERY

in €M excl. tax



5.6

### FROM SORTING OF SELECTIVE COLLECTION AND BULKY OBJECTS

Newspapers/magazines	2.8
Plastics	1.4
Cardboard and recovered household packaging	1.1
Paper mix	0.2
Steel	0.3
Scrap iron and non-ferrous metals from BO	0.7
Glass	2.3
Wood	0
TOTAL	8.8



### FROM INCINERATION

Scrap iron	1.2
Non-ferrous scrap	0.4
TOTAL	1.6

TOTAL 10.4

### MEASURES TAKEN TO

### PREVENT OR REDUCE HARMFUL EFFECTS ON HUMAN HEALTH AND THE ENVIRONMENT

# Continuous improvement and safety at Syctom facilities

- Complete the works for installing video protection on the unloading docks at the Issy-les-Moulineaux and Ivry/Paris XIII centres
- Complete the studies to improve the management and control of access to sites
- Carry out studies to strengthen fire protection in the sorting centre in Sevran and fire protection work for the HW pit in the lvry/Paris XIII centre
- Complete the work to ensure compliance with the machinery directive on all sites
- Carry out work to secure the unloading function (separation islands and guardrails) at the lvry/Paris XIII centre
- Participate in external working groups (Amorce, Fnade, etc.)

# Control of emissions into the environment

- Continue the modernisation of the Etoile Verte energy recovery centre in Saint-Ouen-sur-Seine, including modification of the treatment of industrial effluents and flue gases; study on the installation of odour sensors to identify the sources and measure them in the environment.
- Continue the half-yearly campaigns (conducted by Syctom) to measure emissions from ERU stacks.

# INCOME FROM ENERGY RECOVERY

in €M excl. tax



### FROM INCINERATION

TOTAL	64.2
Sale of steam and electricity (Étoile Verte at Saint-Ouen-sur-Seine)	23.2
Sale of steam and electricity (Isséane and Ivry/Paris XIII)	41



# BREAKDOWN OF TONNAGE IN DIFFERENT TREATMENT CHANNELS IN 2020

## Actual figures as on 11/05/2021

The tonnages of sorting rejects indicated correspond to the actual tonnages recorded by the sorting centre operators (unlike in previous years where the tonnages of sorting rejects were calculated from the difference between incoming tonnages and recovered tonnages). This new calculation method explains the slight difference between the sum of tonnages leaving the sorting centres and the sum of incoming tonnages.

SELE PACK

SELECTIVE COLLECTIONS
PACKAGING AND GRAPHIC PAPER

181,065 t

Waste treated by Syctom 2,205,177 t



SELECTIVE COLLECTIONS BULKY OBJECTS AND WASTE RECEPTION CENTRES

271,266 t

Total tonnage of household waste in Syctom's territory

2,326,699 t



SELECTIVE COLLECTIONS FOOD WASTE AND GREEN WASTE

6,618 t



COLLECTIONS RESIDUAL HOUSEHOLD WASTE

1,746,229 t

Glass **121,521** t



126,675 t MATERIAL RECOVERY 45,342 t ENERGY RECOVERY (REJECTS) 4,153 t

**Total Material and** organic recovery 739,062 t ENERGY RECOVERY (DOWNGRADED WASTE) 3,589 t 32% of waste BOTTOM ASH 291,165<sub>t</sub>

257,287 t SORTING CENTRES

SORTING CENTRES

DOWNGRADED WASTE\*

AND EFFECT OF THE

COVID-19 CRISIS\*\*\*

COMPOSTING

CENTRES

ENERGY

UNITS

RECOVERY

OR METHANATION

DOWNGRADED WASTE\* 21 t

177,290 t

3,774 t

6,597 t

1,636,884 t

DOWNGRADED WASTE\* 9,526 t

153,959 t MATERIAL RECOVERY 13,425 t ENERGY RECOVERY (WOOD FUEL) 8,271 t INERT WASTE IN IWSFS 26,102 t **ENERGY RECOVERY** (REJECTS AND DOWNGRADED WASTE)

**65,288** t REJECTS AND DOWNGRADED

5,722 t ORGANIC RECOVERY (DIGESTATE AND/OR COMPOST)

ENERGY RECOVERY (HEAT PRODUCTION

5.538 MWh

**390** t ENERGY RECOVERY 3
(DOWNGRADED WASTE AND REJECTS)

291,165 t **BOTTOM ASH EVACUATED** 40,019 t MATERIAL RECOVERY

2,631,688 MWh STEAM SOLD (CPCU) 47,192 MWh 130,987 MWh

44,508 t REFIOM PUT IN HWSF

121,521 t MATERIAL RECOVERY

# Total Energy recovery

HOUSEHOLD WASTE + DOWNGRADED WASTE + SORTING REJECTS

1,725,711 t

60.4% of waste\*\*



# Total Landfilling in non-hazardous waste storage facilities

105,145 t

174,585 t

7.6% of waste

\* Downgraded wastes are contributions that do not comply with the technical requirements, and which therefore cannot be recovered and are treated as rejects. \*\* Bottom ash, ferrous and non-ferrous scrap metal are subjected to material recovery. To avoid double-counting, this percentage was

calculated by subtracting these materials from the tonnage of energy recovery. \*\*\* During the first lockdown, inputs of multi-materials had to be directed to

household waste incineration plants (HWIPs) due to a lack of available sorting capacities.

All percentages are calculated including alass.

104,958 t NHWSF

# 2020











Cool non woods almosm						-1-	
Cost per waste stream and treatment mode		INCINERATION	NHWSF	SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
Tonnage treated		1,807,030	112,189	177,290	254,718	42,106	2,863
Contracts and operating charges*	€М	146.4	12.2	50.9	31.2	7.6	0.4
VAT recovery	€M	-2.9	-0.3	-3.5	-0.7	-0.1	0.0
Depreciations/Financial expenses	€M	64.3	0.9	11.0	-	-	-
FULL COST OF TREATMENT	€M	207.8	12.8	58.4	30.5	7.5	0.4
Revenues from the sale of materials	€M	4.3	-	6.8	0.8	0.1	-
Grants from eco-organisations retained by Syctom	€М	7.4	-	22.8	1.8	0.1	-
Other revenues (e.g. energy for incineration)	€M	62.8	-	3.1	-	0.1	-
TOTAL OWN REVENUES	€M	74.5	-	32.7	2.6	0.3	-
NET COST OF TREATMENT	€М	133.3	12.8	25.7	27.9	7.2	0.4
		<b>74</b> €/t	114€/t	145 €/t	110 €/t	172 €/t	125€/t
Grants/repayments by Syctom for the benefit of members	€M	4.1	0.1	5.7	1.8	-	0.1
Grants and material revenues received by Syctom on behalf of members	€М	-	-	5.2	1.8	-	-
NET COST OF THE GRANT POLICY	€М	4.1	0.1	0.5	-	-	0.1
		2 €/t	1 €/t	3 €/t	0 €/t	0 €/t	30 €/t
NET OVERALL COST (treatment and grant	) €M	137.4	12.9	26.2	27.9	7.2	0.4

<sup>\*</sup> treatment services, transfer services, taxes, major maintenance and repair, rents, treatment of rejects and downgraded waste

### 2020

76 €/t

115 €/t

148 €/t

Cost of all streams combined	TOTAL COST	TOTAL TONNAGE TREATED*	POPULATION INSEE 2016
(HW/SC/B0/waste		2,205,134	5,843,553
reception centre)	€M	€/tonne	€/pers.
Full cost*	307.8	140	53
Total own revenues	110.0	50	19
NET COST OF TREATMENT	197.7	90	34
NET COST OF THE GRANT POLICY	4.7	2	1
+ Structural charges	18.7	9	3
+ Prevention / Experimentation	6.8	3	1
NET OVERALL COST	228.0	103	39

<sup>\*</sup> excluding double counts such as certain sorting rejects that come under the incineration and SC sorting or BO sorting columns

### Notable factors explaining the changes seen in 2020

110 €/t

• The cost of treating food waste (FW) fell sharply due to the start of new, less expensive public contracts in 2020. Services related to the treatment of FW also decreased.

172 €/t

155 €/t

- The cost of treating selective collections (SC) reached 148 €/t. It therefore continued its upward trend, as a result of the construction phases on certain sites, such as Nanterre, during which the operator received compensatory remuneration when it was not in a position to treat SC. Depreciation expenses for investments on Syctom sites increased by 3 €/t, while "Covid" indemnities represented an additional cost of 2 €/t.
- The cost of treating bulky objects (B0) in €/t increased by 4 €/t due to the combined effect of a decline in revenue and an increase in treatment services slightly faster than the rate of inflation.
- The net cost of treating RHW by incineration was fairly stable. Energy revenues grew sufficiently to cover the growth in expenditure while the drop in tonnages owing to the pandemic limited the use of costly external services that Syctom needed at the start of the year due to the strikes.
- The treatment cost in waste reception centres increased by €1.2 million, but the unit cost per tonne fell quite significantly due to the sharp increase in deposits at the waste reception centres since the fixed costs were better distributed.
- The overall net cost of €228 million declined due to a decrease in prevention / communication / experimentation expenses during the pandemic and also due to the drop in tonnages. The net cost of treating one tonne of waste for all streams was stable at 103 €/t. On the other hand, with little change in the population, the cost per person decreased to 39 €/pers.

<sup>\*\*</sup> excluding tonnages received from SITRU at the Nanterre sorting centre

<sup>\*\*\*</sup> excluding tonnages and experimentation costs



2019

# 2018















	INCINERATION		SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
	1,845,095	156,490	198,163	250,871	30,854	3,523
€М	152.9	17.1	55.1	30.2	6.4	0.6
€М	-3.1	-0.4	-4.4	-0.7	-0.1	0.0
€М	58.2	1.3	10.4	-	-	-
€М	208.0	18.1	61.1	29.6	6.2	0.6
€М	2.6	-	10.0	1.1	0.1	-
€М	8.4	-	22.9	1.7	0.1	-
€М	58.7	-	2.0	-	0.1	-
€М	69.8	-	34.9	2.9	0.3	-
€М	138.3	18.1	26.1	26.7	6.0	0.6
	75 €/t	109€/t	132 €/t	106 €/t	196€/t	166 €/t
€M	4.1	0.1	6.1	1.7	-	0.1
€М	-	-	5.7	1.7	-	-
€М	4.1	0.1	0.4	-	-	0.1
	2 €/t	1 €/t	2 €/t	0 €/t	0 €/t	30 €/t
€М	142.4	18.2	26.5	26.7	6.0	0.7
	77 €/t	110€/t	134 €/t	106 €/t	196€/t	196 €/t

INCINERATION	NHWSF	SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
1,813,122	154,311	186,840	225,921	27,988	3,132
162.3	15.4	50.2	28.2	5.3	0.5
-3.3	-0.3	-4.0	-0.6	-0.1	-0.0
64.7	1.3	9.6	-	-	-
223.7	16.3	55.9	27.6	5.2	0.5
4.1	-	11.8	1.5	0.1	-
9.6	-	21.0	1.6	0.1	-
68.1	-	1.9	-	0.1	-
81.9	-	34.6	3.2	0.2	-
141.9	16.3	21.2	24.4	5.0	0.5
78 €/t	105 €/t	114€/t	108 €/t	177 €/t	165 €/t
4.1	0.1	6.0	1.7	0.0	0.1
-	-	5.6	1.7	0.0	-
4.1	0.1	0.3	-	-	0.1
2 €/t	1 €/t	2 €/t	0 €/t	0 €/t	30 €/t
145.9	16.4	21.6	24.4	5.0	0.6
80€/t	106€/t	115 €/t	108 €/t	177 €/t	195 €/t

<sup>\*\*</sup> excluding tonnages received from SITRU at the Nanterre sorting centre

2019

TOTAL COST	TOTAL TONNAGE TREATED*	POPULATION INSEE 2015
	2,339,731	5,799,590
€М	€/tonne	€/pers.
316.2	135	55
107.8	46	19
208.4	89	36
4.7	2	1
18.1	8	3
12.7	5	2

104

243.9

TOTAL COST	TOTAL TONNAGE TREATED*	POPULATION INSEE 2014
	2,341,576	5,767,713
€M	€/tonne	€/pers.
324.4	139	57
119.9	51	21
204.4	87	36
4.6	2	1
18.2	8	3
6.9	3	1
234.1	100	41

2018

42

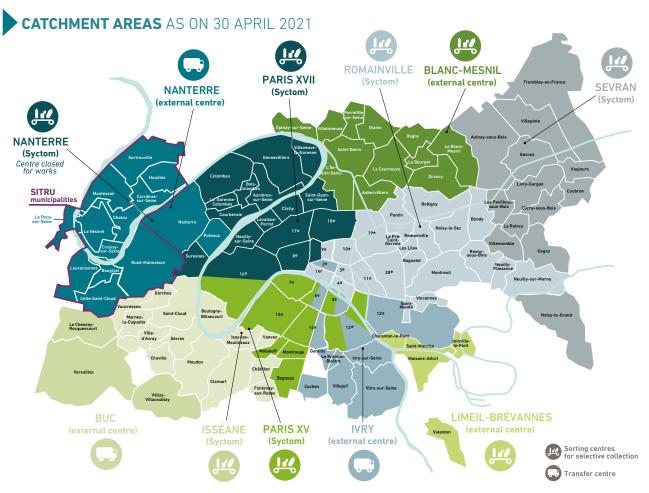
# Some information on methodology

- The policy of grants to local authorities (remoteness, hosting, Citeo repayment, Éco-mobilier repayment) is highlighted because it cannot be assimilated to conventional treatment expenditure.
- The cost calculation is the result of an analysis with restatements so that the data presented reveal the most reliable trends possible.
- It is therefore not the exact reflection of the accounting.
- For example, some points in the previous financial year report presented are an estimation that is as close as possible to reality. From one year to the next, the final data may be substituted for the estimated values.

<sup>\*\*\*</sup> excluding tonnages and experimentation costs

 $<sup>^{</sup>st}$  excluding double counts such as certain sorting rejects that come under the incineration and SC sorting or BO sorting columns

# SELECTIVE COLLECTION



Some waste goes through transfer centres in line with the rationale of proximity.

# BREAKDOWN OF TONNAGE 2020

	TONNAC	GES		
SORTING CENTRES	RECEIVED (including downgraded waste)	SORTED	TONNAGES RECOVERED	OPERATORS
SYCTOM SORTING CENTRES In addition to the selective collection stream Syctom also treats those provided by 12 SIT				
ISSÉANE	17,177	16,438	11,744	SUEZ
PARIS XV	24,073	23,894	19,216	XVÉO (VEOLIA)
PARIS XVII	39,209	38,569	30,742	CNIM
ROMAINVILLE	49,344	47,838	35,975	VALORAM (URBASER)
SEVRAN	17,403	17,132	10,174	TRINÉO (VEOLIA)
SUB-TOTAL SYCTOM'S SORTING CENTRES	147,205	143,872	107,852	
EXTERNAL SORTING CENTRES				
SUB-TOTAL EXTERNAL SORTING CENTRES	45,778	45,411	29,732	
GRAND TOTAL	192,984	189,282	137,584	
SYCTOM	180,991	177,290	126,675	
* INPUT FROM SITRU	11,293	11,293	10,718	
* INPUT FROM SIGIDURS	700	700	192	

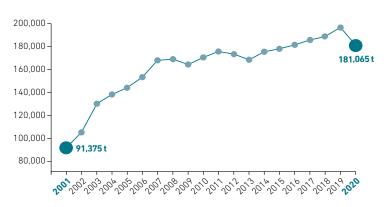
# RECYCLABLE MATERIALS RECOVERY CHANNELS

in tonnes

		TONNAGES SYCTOM 2020	PURCHASERS	DESTINATION	FUTURE	TRANSPORT
	NEWSPAPERS JOURNALS MAGAZINES	28,702	<b>UPM</b> (for Paris XVII only)	Paper mill: UPM-Chapelle Darblay at Grand-Couronne (76)	Newspaper	Road
			Norske Skog	Golbey (88)		
	Brown cardboard recyclable household packaging (EMR) + paperboard packaging	59,198	SUEZ RV	Papeteries Saica (02) DS Smith (76)	Brown cardboard, corrugated base paper	40% river (barge). The rest by road
	PAPER MIX	15,291	UDREP	Cardboard mills of Gondardennes or RenoDiMedici (62)	Corrugated or flat cardboard	Road
	LIGHT FOOD PACKAGING (LFP)	1,450	REVIPAC	Paper mills: Georgia Pacific (45) Nova Tissue (88)	Toilet and household paper	Road
ĵÔĵ	PACKAGING IN RIGID PLASTIC SUCH AS PET	9,811	SUEZ RV	Mostly factories in France Limay (78), Colmar (68) and Bayonne (64) Occasionally close to Europe (Italy)	Raw material regenerated in the form of granules used to make bottles (rPET) or fibres (textile)	River transport (barge) after regrouping the streams at Gennevilliers for Limay. The rest by road
	PACKAGING IN RIGID PLASTIC SUCH AS HPPE OR PP	53	PAPREC GROUP	Mostly factories in Germany and	Raw material regenerated in the form of granules that can	
	PACKAGING IN RIGID PLASTIC SUCH AS HDPE OR PP OR PS	4,981	PAPREC GROUP	Turkey Occasionally in France (71)	be used to make various plastic products (sewer pipes, watering cans, etc.)	Road
	LDPE FILMS AND COVERS	1,999	SUEZ RV	Mostly factory: Machaon (51) + Near Europe	Raw material regenerated in the form of granules used to make plastic films	Road
	ALUMINIUM FROM SELECTIVE COLLECTION	606	REGEAL AFFIMET / SUEZ RV	Factory: Regeal-Affimet in Compiègne (60) for large aluminium Alunova factory Germany (for small aluminium streams)	Aluminium alloys	Road
	ALUMINIUM FROM BOTTOM ASH	3,321	GAL00	Factory: GALLOO in Halluin (Belgium)	Aluminium alloys	Road
1	STEEL FROM SELECTIVE COLLECTION	3,090	ARCELOR MITTAL	Factory: Arcelor in Dunkerque 59		
	STEEL FROM	0/ 000		Large scrap metal: taken over by GALL00 IDF in Bonneuil s/Marne (94)	Steel	Road
	BOTTOM ASH	34,982	GAL00	Small scrap metal: taken over by GALLOO Metal or other subcontractors (Belgium and 59)		

# CHANGE IN COLLECTIONS INTENDED FOR MATERIAL RECOVERY SINCE 2001

### SELECTIVE COLLECTIONS

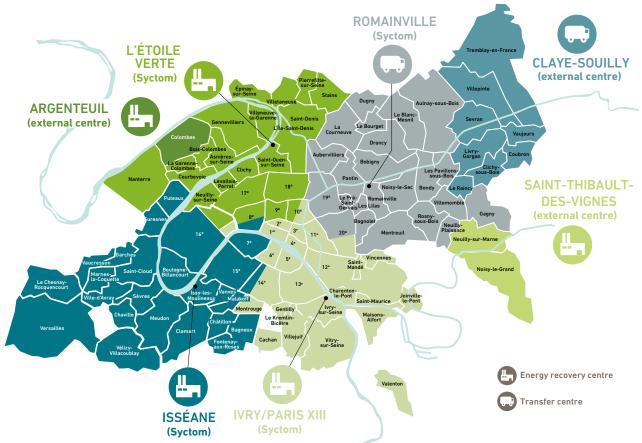


	%	TONNES
2019-2020	-8.59 %	-17,017 t
2001-2020	98.16%	89,690 t

In 2020, a major strike by collection agents followed by the health crisis and lockdown led to a sharp decrease in the selective collection of household and paper packaging, and a reduction in sorting capacities. In the end, sorted selective collection tonnages recorded a drop of nearly 9%.

# RESIDUAL HOUSEHOLD **WASTE**

# **CATCHMENT AREAS** AS ON 30 APRIL 2021



OPTIMISING THE SUPPLY TO ENERGY RECOVERY CENTRES

To optimise the supply and energy production of its ERUs, Syctom launched an urban logistics project in 2019 for a more efficient transfer of RHW. During the first phase of the project, it acquired a stream regulation tool: during periods of high activity in the centres, a part of the waste is directed to an external transfer centre, then redirected

to Syctom's energy recovery facilities. In 2020, this system made it possible to divert 11,000 tonnes of household waste from landfilling.

Household waste baling equipment was also installed in 2019 on the Routière Est Parisien (REP) site in Claye-Souilly. This equipment is used to create a buffer stock to optimise the supply to Syctom's energy recovery centres.

> **OPERATORS** ISSY URBASER ENERGIE IP13 (SUEZ) DALKIA WASTENERGY

# **BREAKDOWN** OF TONNAGE 2020

		RECOVERY			
Щ			4		NA
INCINERATION UNITS	TONNAGES INCINERATED	Steam sold (IN MWH)	Electricity sold (IN MWH)	Bottom ash (IN TONNES)	Ferrous and non-ferrous scrap (IN TONNES)
ISSÉANE	442,401	705,379	34,016	69,720	11,251
IVRY / PARIS XIII	636,738	899,020	61,964	102,632	15,603
ÉTOILE VERTE	552,350	1,027,289	6,912	93,268	11,450
TOTAL SYCTOM CENTRES*	1,631,489	2,631,688	102,892	265,620	38,304
TOTAL EXTERNAL CENTRES**	131,222	47,192	28,095	25,545	1,716
TOTAL	1,762,711	2,678,880	130,987	291,165	40,019

<sup>\*</sup> This tonnage includes actually incinerated waste, excluding pit-level variations in Syctom's HWIPs.

\*\* For the external centres, the indicated tonnage corresponds to the tonnage incinerated on behalf of Syctom (details on the tonnages treated in the external centres on page 6).

# Control of air emissions from Syctom's incineration centres with energy recovery

П		NATURE OF EMISSIONS  Concentrations in mg/Nm³  at 11 % O2  Antimony  + arsenic + lead  + chrome + cobalt  Dio				Dioxins			
	Dust	Hydrochloric acid	Hydrofluoric acid	Sulphur dioxide	Nitrogen oxide	Cadmium + thallium	Mercury	+ copper + manganese + nickel + vanadium	and furans (in ng I-TEQ /m³)
Maximum emission values applicable since 28 Dec. 2005 Ministerial order of 20 Sept. 2002	10	10	1	50	200 (80)*	0.05	0.05	0.5	0.1
IVRY / PARIS XIII									
May	3	1.2	0.05	25	68	0.002	0.039	0.07	0.015
July (Syctom)	3.4	0.8	0.1	30	39	0.0003	0	0.02	0.123
September	2	0.5	0.18	20	63	0.003	0.0011	0.11	0.017
December (Syctom)	3.7	3.4	0.2	50	30	0.001	0.0003	0.04	0.026
ÉTOILE VERTE									
March	0.8	3.4	0.04	5.6	60	0.001	0.002	0.07	0.008
June (Syctom)	0.6	1.3	0.19	9.8	55	0.0002	0.0014	0.02	0.017
October	1.6	1.5	0.09	15	43	0.001	0.003	0.13	0.043
November (Syctom)	0.6	1.03	0.1	3.9	54	0.0004	0.004	0.043	0.01
ISSÉANE									
February	0.3	5.7	0.04	4.6	20	0.00002	0.008	0.01	0.002
June	0.7	5.3	0.03	3.6	38	0	0.003	0.001	0.005
June (Syctom)	0.05	5.2	0.13	3.1	39	0.00002	0.003	0.01	0.01
September	0.6	4.1	0.03	2.1	41	0	0.007	0.002	0.006
December (Syctom)	0	5.4	0.06	2.4	44	0.0001	0.004	0.01	0.002
December	0.5	3.6	0.07	1.8	36	0	0.004	0.001	0.001

<sup>\*</sup> Ile-de-France's plan for the protection of the atmosphere has set the maximum emission value at  $80 \, \mathrm{mg/Nm^3}$  (the threshold set by the European directive is 200 mg/Nm $^3$ ). This threshold is reiterated in the operating permit for Ivry-Paris XIII and the Étoile Verte. At Isséane, the operating permit issued by the Prefect of Hauts-de-Seine sets the threshold for the emission of nitrogen oxides at 70 mg/Nm $^3$ .

# Waste dumped in storage facilities



REFIOM PRODUCED BY HWIP

Ivry/Paris XIII	17,015
Isséane	4,348
L'Étoile Verte	8,208
TOTAL HWSF	29,572



**TOTAL IWSF** 



BOUQUEVAL

NON-HAZARDOUS WASTE SENT TO NHWSFS

HW	9,854
SC sorting rejects	1,417
As-dug gravel from waste reception centre	27
SUB-TOTAL	11,298
CLAYE-SOUILLY	
HW	90,003
SC sorting rejects	553
BO sorting rejects	10,334
SUB-TOTAL	100,890
TOTAL NHWSF (Syctom contract)	112,189

REFIOM: Residues from purification of flue gas from household waste incineration

HWSF: Hazardous waste storage facility IWSF: Inert waste storage facility

NHWSF: Non-hazardous waste storage facility

NHWSF (OTHER CONTRACTS	)
------------------------	---

NHWSF (UTHER CUNTRACTS)	
Sorting rejects from BO	54,927
HW from Ivry HWIP	689
HW Isséane ERU	436
HW Romainville	2969
HW backup centres	3040
TOTAL NHWSF (other contracts)	62,061
GRAND TOTAL NHWSF	174,250

These tonnages correspond to waste that is actually sent to storage centres. They do not take stock variations into account.

8,271

# F00D WASTE



# **BREAKDOWN** OF TONNAGE 2020

PRODUCERS	QUANTITIES RECEIVED
NON-HOUSEHOLD FOOD WASTE	4,576
HOUSEHOLD FOOD WASTE	1,480
REJECTS	21
TOTAL RECOVERED	6,056

# **RECEPTION SITES**

LOCATIONS	OPERATORS
STAINS (93)	MOULINOT
SAINT-DENIS (93)	SARVAL
LIMEIL-BRÉVANNES (94)	SUEZ
PARIS 19 <sup>TH</sup>	LOCAL TREATMENT
STAINS (93)	LOCAL TREATMENT
VALENTON (94)	LOCAL TREATMENT

# **TREATMENT** OF FOOD WASTE

TREATMENT METHODS	BREAKDOWN
METHANATION	96,5%
COMPOSTING	3,5%

# TREATMENT SITES

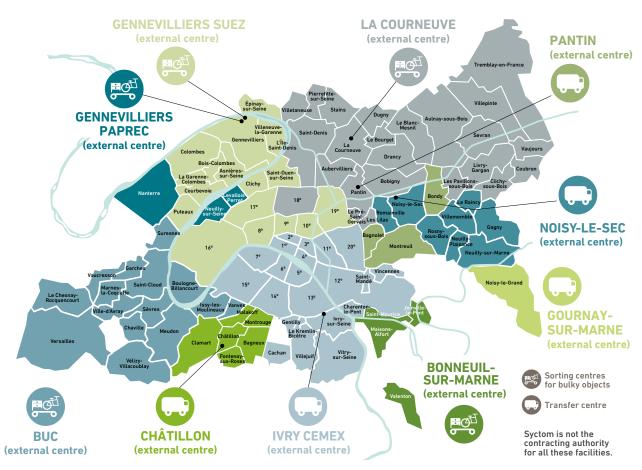
LOCATIONS	TONNAGE
PARIS 19 <sup>TH</sup> (75)	21
NOYEN-SUR-SEINE (77)	1,010
USSY-SUR-MARNE (77)	1,327
ETAMPES (91)	53
VERT-LE-GRAND (91)	157
STAINS (93)	6
VALENTON (94)	25
HARTENNES-ET-TAUX (02)	800
THENNELIÈRES (10)	1,281
GAILLON (27)	55
VOLCKERINCKHOVE (59)	364
PASSEL (60)	869
JOIGNY (89)	24
KALLO (BELGIQUE)	63

# RECOVERY OF FOOD WASTE AND GEOGRAPHICAL BREAKDOWN

LOCATIONS	BREAKDOWN
ÎLE-DE-FRANCE	42.9%
FRANCE, EXCLUDING ÎLE-DE-FRANCE REGION	56.0%
BELGIUM	1.0%

# BULKY OBJECTS

# **CATCHMENT AREAS** AS ON 30 APRIL 2021



# **BREAKDOWN** OF TONNAGE 2020

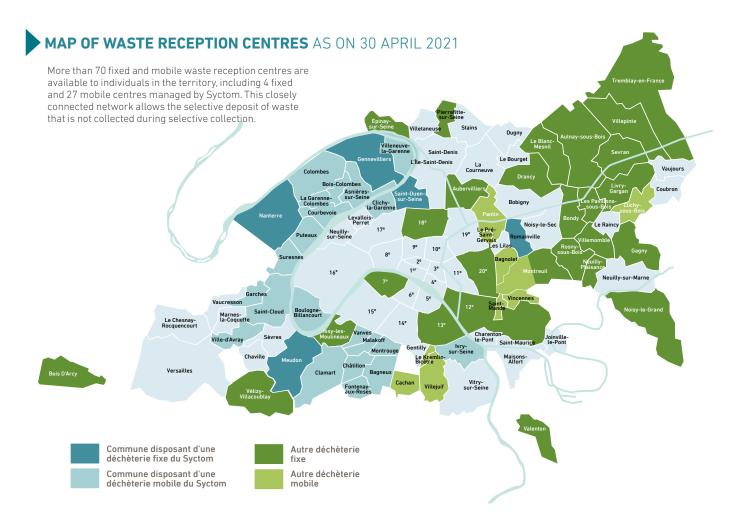
BULKY OBJECTS SORTING AND TRANSFER CENTRES	TONNAGES	TONNAGES RECOVERED	OPERATORS
BUC	15,860	7,535	NICOLLIN
CHÂTILLON	7,831		TAÏS
GENNEVILLIERS (SUEZ)	32,366	19,311	SUEZ
GENNEVILLIERS (PAPREC)	8,588	4,577	PAPREC
LA COURNEUVE	44,144	24,377	PAPREC
NOISY	51,450	28,164	DRT
PIERREFITTE	4,282		CDIF
BONNEUIL	3,604	21,561	TAÏS
IVRY (CEMEX)	28,421		
GOURNAY	2,892		
LIMEIL (SUEZ)	826		
TOTAL	203,199	105,524	

<sup>\*</sup> Recovered tonnages come from bulky objects as direct contributions and as transfers from waste reception centres

SORTING OF CONSTRUCTION BULKY OBJECTS	TONNAGES	TONNAGES RECOVERED	OPERATORS
GENNEVILLIERS	41,413	35,808	PAPREC
IVRY	14,213	11,146	CEMEX
TOTAL	55,626	46,954	

GRAND TOTAL 259,125 152,478

# WASTE RECEPTION CENTRES



# **BREAKDOWN** OF TONNAGE 2020

WASTE RECEPTION CENTRES	TONNAGES RECEIVED	TONNAGES RECOVERED*	OPERATORS
ROMAINVILLE	5,691	2,457	GÉNÉRIS (VEOLIA)
SAINT-OUEN-SUR-SEINE	506	414	DERICHEBOURG
GENNEVILLIERS	12,156	4,319	SUEZ
NANTERRE	13,906	4,778	SUEZ
MEUDON	8,782	1,997	SUEZ
27 MOBILE WASTE RECEPTION CENTRES	2,180	940	SUEZ
TOTAL	43,219	14,905	

<sup>\*</sup> As-dug gravel from the Romainville waste reception centre is then sorted in a B0 centre. Tonnages recovered from this sorting are not included here.



l'agence métropolitaine des déchets ménagers

The public authority for the sustainable management of household waste in the Paris region

86 rue Regnault | 75013 Paris | Tel. +33 (0)1 40 13 17 00 www.syctom-paris.fr

