

# 2018

ACTIVITY REPORT

The logo for sycotom, featuring the word "sycotom" in a lowercase, teal, sans-serif font, enclosed within a white, horizontally-oriented oval shape with a slight shadow effect.

sycotom

**04 | Editorial**

**06 | Sycotom's elected officials**

**10 | Map of the territories**

**12 | 2018 outlook**

**14 | Key figures**

## 16 | EFFICIENCY AND PROXIMITY ON A DAILY BASIS

18 | Sycotom's priority: ever greater waste recovery

22 | The means deployed: securing and modernising

26 | The method: dialogue, cooperation and support

## 28 | INTERLUDE

## 30 | EXEMPLARITY AND RESPONSIBILITY FOR TOMORROW

32 | An exemplary player

34 | A player that cares for its environment

36 | An outward-looking player

40 | A player committed to knowledge sharing

## Appendix

## TECHNICAL AND FINANCIAL REPORT 2018

### 02 | Budget

02 | Operations

04 | Investment

### 06 | Annual report

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

08 | Breakdown of tonnage in different treatment  
centres in 2018

10 | Treatment costs

### 12 | Detailed operations report

12 | Selective collection

14 | Residual household waste

16 | Bulky objects



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Jacques GAUTIER

President of Sycotm since October 2017, Jacques Gautier speaks about the highlights of 2018 and the challenges of the coming months and years.

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## A GLOBAL OUTLOOK ABOUT THE WASTE TREATMENT CHAIN

### What were some of Sycotm's main achievements in 2018?

2018 marked the completion of a large number of projects spearheaded by my predecessor, Hervé Marseille, and which we implemented successfully. The project at Ivry/Paris XIII crossed many milestones, which will enable us to replace the current facility with a new energy recovery unit (ERU) by 2024. We also launched the "mid-life" modernisation of the ERU in Saint-Ouen-sur-Seine, to make it a centre that is both more eco-friendly and better integrated into the residential area that surrounds it today. 2018 also saw the completion of our transformation project in Romainville/Bobigny: the technical solution of natural drying that we opted for is not only beneficial at the local level, but it will also allow us to optimise the operation of all our facilities over the year. Lastly, the construction of the sorting centre for selective collection

in Paris XVII made great progress and will be inaugurated in June 2019. To bring all these projects to fruition, we will have to borrow 800 million euros over seven years. For the sake of transparency and exemplarity, vis-à-vis our creditors, we were the first major syndicate to call upon the credit-rating agency Standard & Poor's in 2018, which gave us A+ rating. We also took out a first green loan, which demonstrates Sycotm's commitment to sustainable development.

### What actions did you exactly take in 2018 for sustainable development?

In accordance with the Energy Transition for Green Growth Act (LTECV), we continued to adapt our industrial tool to the extension of sorting instructions. And, more broadly, we diversified our initiatives for the emergence of a more circular economy. Through our innovation partnerships with SIAAP and SIGEIF, we are supporting the endeavour to find new solutions: with the former to produce biogas, with the latter to create a biowaste methanisation unit. More immediately, we stepped up our public awareness campaigns in 2018 on sorting and recycling, during the "10/10, To your bins!" operation or by experimenting with new programmes. I am referring to the "Yoyo" programme, which encourages residents to recycle by offering them recreational or cultural rewards. We will assess the results in two years. We also went to see what our counterparts are doing in Milan and San Francisco. These trips convinced us of the importance of controlling the entire chain from collection to treatment. For example, the fact that they have the option of collecting biowaste from restaurant owners makes them very effective. We have just started the collection of food waste from some school canteens and some markets, and it would really be advantageous if we could extend it to restaurants, which are the largest generators of food waste.

### What avenues do you have today to go even further?

The work we undertook in 2018 with the Île-de-France Region to develop the Regional Plan for Waste Prevention and Management (PRPGD) is a step in the right direction: ambitious, it nevertheless sets achievable goals, whether it is to reduce waste volumes, deploy composting or increase reuse and recycling. To go further, we will have to surmount some serious constraints: the 2019 Finance Act is somewhat unfair to us, because it imposes on us a higher general tax on polluting activities (TGAP) than on a large number of local authorities that are less committed than us to sustainable development. That is why we believe it is essential for the State to take its responsibilities: we want it to defend those who are already actively involved in the ecological transition and to impose constraints on those marketing non-recyclable packaging and those who are not doing anything to reduce the amount of waste produced at source.

### How did identifying these different issues inspire the Great challenge that Sycotm initiated early 2019?

This initiative, proposed by the Sycotm services, whose competence and involvement I wish to highlight, aims to collectively find solutions to massively reduce the volume of waste that we treat. This is why we brought together the elected officials of our member territories, our partners, environmental associations, but also professional federations of waste producers, the restaurant industry and supermarkets. The goal is to go beyond differences of viewpoint to open up serious, coherent and financially balanced avenues. At the end of this co-construction, we will together select the proposals to be implemented, so that each stakeholder agrees to apply them. We are really committed to this initiative, to achieve the goal of reducing waste by half. The stakes at hand deserve this mobilisation that we have catalysed.

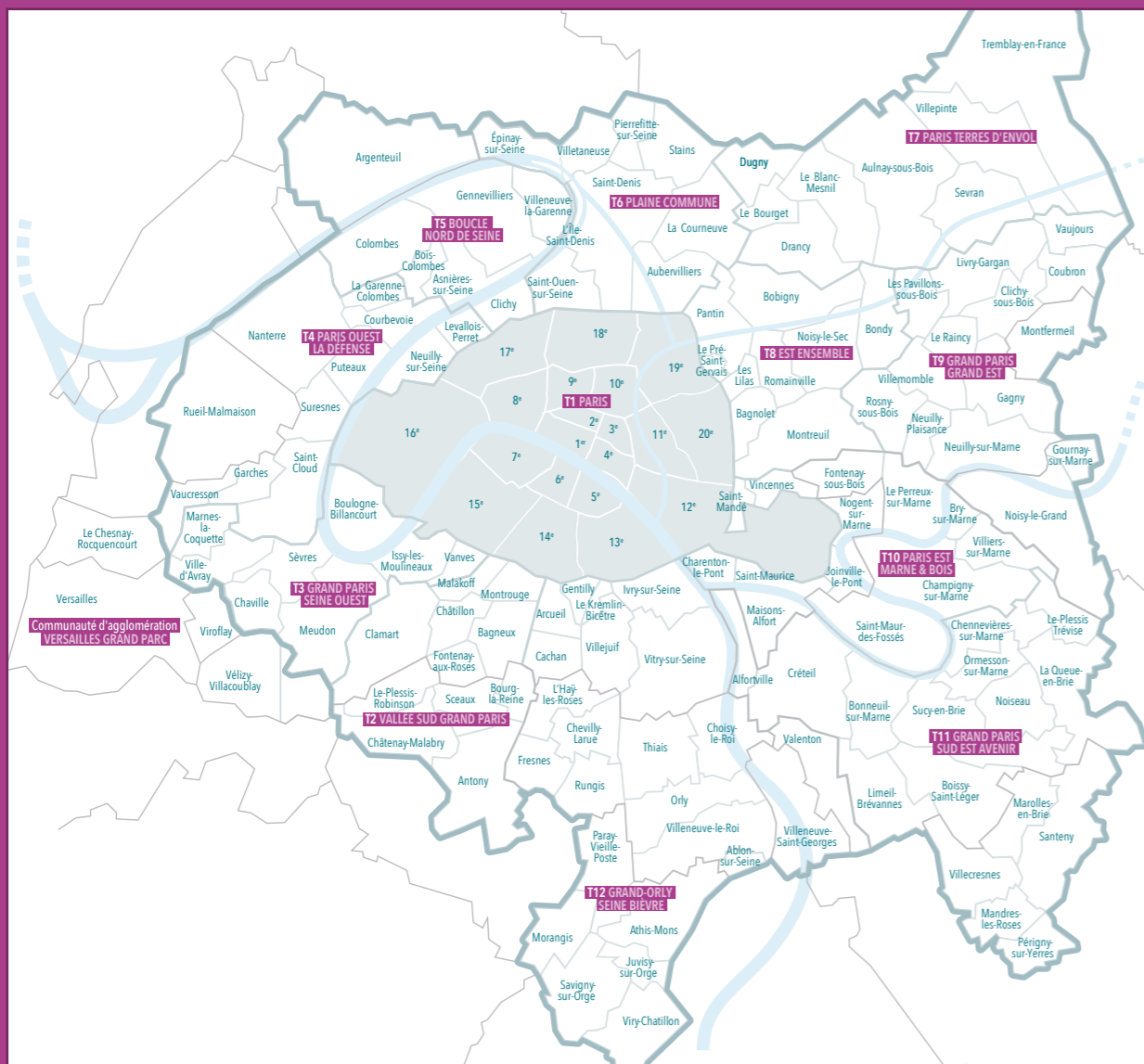
# SYCTOM'S ELECTED OFFICIALS

Since January 26, 2017, Syctom has been administered by a Syndicate Committee composed of 90 local elected officials representing 11 territories of the Greater Paris Metropolis and the Versailles Grand Parc Agglomeration Community.

- It 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 20 October 2017, the 90 delegates of the Syndicate Committee unanimously elected Jacques Gautier as Syctom's President. He succeeds Hervé Marseille, who, re-elected senator on 24 September 2017, resigned from the Syctom Presidency pursuant to the French law on the non-accumulation of mandates.



## SYCTOM'S ELECTED OFFICIALS



### PRESIDENT OF SYCTOM

**Jacques GAUTIER**  
Municipal councillor of Garches\*,  
Paris Ouest La Défense

\* On 30 March 2019, Jacques Gautier stepped down as Mayor of Garches

## T1 • PARIS

### SYCTOM'S VICE-PRESIDENTS



**Paul SIMONDON**  
1<sup>st</sup> Vice-President  
Deputy Mayor of Paris



**Jérôme COUMET**  
6<sup>th</sup> Vice-President  
Mayor of 13<sup>th</sup> arr. of Paris, Metropolitan councillor



**Jean-François LEGARET**  
10<sup>th</sup> Vice-President  
Mayor of 1<sup>st</sup> arr. of Paris, Regional councillor of Île-de-France



**Anne SOUYRIS**  
11<sup>th</sup> Vice-President  
Deputy Mayor of Paris, Metropolitan councillor

### SYCTOM'S BOARD MEMBERS



**Catherine BARATTI-ELBAZ**  
Mayor of 12<sup>th</sup> arr. of Paris, Metropolitan councillor



**Hervé BÉGUÉ**  
Councillor of Paris



**Jean-Didier BERTHAULT**  
Councillor of Paris, Metropolitan councillor



**Florence BERTHOUT**  
Mayor of the 5<sup>th</sup> arr. of Paris, Regional councillor of Île-de-France



**François DAGNAUD**  
Mayor of 19<sup>th</sup> arr. of Paris, Metropolitan councillor



**Claire DE CLERMONT-TONNERRE**  
Councillor of Paris, Metropolitan councillor



**Philippe DUCLoux**  
Councillor of Paris



**Éric HELARD**  
Councillor of Paris, Metropolitan councillor



**Patrick TRÉMÈGE**  
Councillor of Paris

### SYCTOM'S DELEGATES



**Jean-Noël AQUA**  
Councillor of Paris



**Pierre AURIACOMBE**  
Councillor of Paris



**Hélène BIDARD**  
Deputy Mayor of Paris



**Pascale BLADIER-CHASSAIGNE**  
Councillor of Paris



**Gysie BLOCH**  
Councillor of Paris



**Julie BOILLOT**  
Councillor of Paris, Metropolitan councillor



**Claudine BOUYGUES**  
Councillor of Paris



**Galla BRIDIER**  
Deputy Mayor of Paris, Metropolitan councillor



**Frédérique CALANDRA**  
Mayor of 20<sup>th</sup> arr. of Paris, Metropolitan councillor



**Virginie DASPET**  
Councillor of Paris



**Maud GATEL**  
Councillor of Paris



**Christophe GIRARD**  
Deputy Mayor of Paris, Metropolitan councillor



**Antoinette GUHL**  
Deputy Mayor of Paris



**Marie-Laure HAREL**  
Councillor of Paris, Metropolitan councillor



**Halima JEMNI**  
Councillor of Paris, Metropolitan councillor



**Véronique LEVIEUX**  
Deputy Mayor of Paris



**Jean-Louis MISSIKA**  
Deputy Mayor of Paris, Metropolitan councillor



**Anne-Constance ONGHENA**  
Councillor of Paris, Metropolitan councillor



**Daniel VAILLANT**  
Former Minister, Councillor of Paris



**Alexandre VESPERINI**  
Councillor of Paris, Metropolitan councillor

### ALTERNATE REPRESENTATIVES

**Éric AZIERE**  
Councillor of Paris, Metropolitan councillor

**Marinette BACHE**  
Councillor of Paris, Metropolitan councillor

**Nicolas BONNET-OLALDJ**  
Councillor of Paris, Metropolitan councillor

**Geoffroy BOULARD**  
Councillor of Paris, Metropolitan councillor

**Pierre-Yves BOURNAZEL**  
Councillor of Paris, Regional councillor of Île-de-France

**Jacques BOUTAULT**  
Mayor of 2<sup>nd</sup> arr. of Paris

**Anne-Charlotte BUFFETEATU**  
Councillor of Paris

**Emmanuelle DAUVERGNE**  
Councillor of Paris, Regional councillor of Île-de-France

**Nathalie FANFANT**  
Councillor of Paris, Metropolitan councillor

**Rémi FERAUD**  
Senator, Councillor of Paris

**Léa FILOCHE**  
Councillor of Paris, Metropolitan councillor

**Afaf GABELOTAUD**  
Deputy Mayor of Paris

**Pierre GABORIAU**  
Councillor of Paris

**Jean-Jacques GIANNESINI**  
Councillor of Paris, Metropolitan councillor

**Frédéric HOCQUARD**  
Deputy Mayor of Paris, Metropolitan councillor

**Thierry HODENT**  
Councillor of Paris, Metropolitan councillor

**Christian HONORE**  
Councillor of Paris

**Pénélope KOMITES**  
Deputy Mayor of Paris

**Thomas LAURET**  
Councillor of Paris

**Catherine LECUYER**  
Councillor of Paris, Metropolitan councillor

**Didier LE RESTE**  
Councillor of Paris

**Sandrine MEES**  
Councillor of Paris

**Étienne MERCIER**  
Councillor of Paris

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

**Nicolas NORDMAN**  
Deputy Mayor of Paris

**Annick OLIVIER**  
Councillor of Paris

**Atanase PERIFAN**  
Councillor of Paris

**Karen TAIEB**  
Deputy Mayor of Paris

**Sergio TINTI**  
Councillor of Paris

**François VAUGLIN**  
Mayor of 11<sup>th</sup> arr. of Paris, Metropolitan councillor

**Yann WEHLING**  
Councillor of Paris, Regional councillor of Île-de-France

**Mercédès ZUNIGA**  
Councillor of Paris

## T2 • VALLÉE SUD GRAND PARIS

### SYCTOM'S VICE-PRESIDENT



**Jean-Pierre SCHOSTECK**  
4<sup>th</sup> Vice-President  
Mayor of Châtillon, Metropolitan councillor



**Jacqueline BELHOMME**  
Mayor of Malakoff, Metropolitan councillor



**Benoît BLOT**  
Deputy Mayor of Le Plessis-Robinson



**Philippe RIBATTO**  
Deputy Mayor of Fontenay-aux-Roses

### ALTERNATE REPRESENTATIVES

**Carole HIRIGOYEN**  
Deputy Mayor of Montrouge

**Serge KEHYAYAN**  
Deputy Mayor of Clamart

**Alain LE THOMAS**  
Deputy Mayor of Bagneux

**Patrice RONCARI**  
Deputy Mayor of Clamarts

### T3 • GRAND PARIS SEINE OUEST

#### SYCTOM'S VICE-PRESIDENTS

**André SANTINI**  
3<sup>rd</sup> Vice-President  
Former Minister, Mayor of Issy-les-Moulineaux, Vice-President of the Greater Paris Metropolis

**Christiane BARODY-WEISS**  
5<sup>th</sup> Vice-President  
Mayor of Marnes-la-Coquette, Vice-President of T3, Metropolitan councillor

#### SYCTOM'S BOARD MEMBER

**Hervé Marseille**  
Senator of Les Hauts-de-Seine, Municipal councillor of Meudon, Metropolitan councillor

#### SYCTOM'S DELEGATES

**Pierre-Christophe BAGUET**  
Mayor of Boulogne-Billancourt, President of T3, Departmental councillor of Les Hauts-de-Seine

**Pierre CHEVALIER**  
Municipal councillor of Ville-d'Avray

#### ALTERNATE REPRESENTATIVES

**Christine BRUNEAU**  
Deputy Mayor of Boulogne-Billancourt

**Florence de PAMPELONNE**  
Deputy Mayor of Meudon

**Bernard ROCHE**  
Municipal councillor of Vanves

**Joëlle SUEUR**  
Deputy Mayor of Issy-les-Moulineaux

### T4 • PARIS OUEST LA DÉFENSE

#### SYCTOM'S PRESIDENT

**Jacques GAUTIER**  
Municipal councillor of Garches

#### SYCTOM'S DELEGATES

**Éric BERDOATI**  
Mayor of Saint-Cloud, Departmental Councillor of Les Hauts-de-Seine, Metropolitan councillor

**Sophie DESCHIENS**  
Deputy Mayor of Levallois-Perret, Regional councillor of Île-de-France

**Jean-Christophe FROMANTIN**  
Mayor of Neuilly-sur-Seine, Metropolitan councillor

**Norredine IZNASNI**  
Municipal councillor of Nanterre

#### SYCTOM'S BOARD MEMBER

**Éric CESARI**  
Deputy Mayor of Courbevoie, Metropolitan councillor

#### ALTERNATE REPRESENTATIVES

**Jean-François DRANSART**  
Deputy Mayor of La Garenne-Colombes

**Bernard GAHNASSIA**  
Deputy Mayor of Puteaux

**Amirouche LAIDI**  
Deputy Mayor of Suresnes

**Dominique LEBRUN**  
Deputy Mayor of Saint-Cloud

**Alexis MARTIN**  
Deputy Mayor of Nanterre

**Bertrand PERCIE du SERT**  
Deputy Mayor of Levallois-Perret

### T5 • BOUCLE NORD DE SEINE

#### SYCTOM'S BOARD MEMBERS

**Nicole GOUETA**  
Mayor of Colombes, Departmental Councillor of Les Hauts-de-Seine

**Olivier MERIOT**  
Deputy Mayor of Gennevilliers  
Recording secretary

#### SYCTOM'S DELEGATES

**Marie-Do AESCHLIMANN**  
Deputy Mayor of Asnières-sur-Seine, Regional councillor of Île-de-France

**Pascal PELAIN**  
Deputy Mayor of Villeneuve-la-Garenne

**Patrice PINARD**  
Deputy Mayor of Clichy-la-Garenne

#### ALTERNATE REPRESENTATIVES

**Anne-Gabrielle CANTET**  
Deputy Mayor of Bois-Colombes

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

**Mohamed MAAZOUZI**  
Deputy Mayor of Villeneuve-la-Garenne

**Samuel METIAS**  
Deputy Mayor of Colombes

**Frédéric SITBON**  
Deputy Mayor of Asnières-sur-Seine

### T6 • PLAINE COMMUNE

#### SYCTOM'S VICE-PRESIDENTS

**Karina KELLNER**  
2<sup>nd</sup> Vice-President  
Municipal councillor of Stains

**William DELANNOY**  
9<sup>th</sup> Vice-President  
Mayor of Saint-Ouen-sur-Seine, Metropolitan councillor

#### SYCTOM'S DELEGATES

**Delphine HELLE**  
Municipal councillor of Saint-Denis

**Michel HOEN**  
Municipal councillor of La Courneuve

**Khaled KHALDI**  
Deputy Mayor of Villetaneuse

#### SYCTOM'S BOARD MEMBER

**Anthony DAGUET**  
Deputy Mayor of Aubervilliers

#### ALTERNATE REPRESENTATIVES

**Dominique CARRE**  
Deputy Mayor of Pierrefitte

**Jean-François MONINO**  
Deputy Mayor of Aubervilliers

**Denis REDON**  
Municipal councillor of Épinay-sur-Seine

**Christophe ROSE**  
Municipal councillor of L'Île-Saint-Denis

**Laurent RUSSIER**  
Mayor of Saint-Denis

### T7 • PARIS TERRES D'ENVOL

#### SYCTOM'S VICE-PRESIDENT

**Fouad EL KOURADI**  
14<sup>th</sup> Vice-President  
Deputy mayor of Aulnay-sous-Bois

#### SYCTOM'S DELEGATES

**Jean-François BAILLON**  
Deputy Mayor of Sevran

**Madani ARDJOUNE**  
Deputy Mayor of Tremblay-en-France

**Bernadette VANDENABELLE**  
Deputy Mayor of Drancy

#### ALTERNATE REPRESENTATIVES

**Michel ADAM**  
Deputy Mayor of Dugny


**Denis DESRUMAUX**  
Municipal councillor of Le Bourget

**Claude MARIOT**  
Municipal councillor of Villepinte

**Thierry MEIGNEN**  
Mayor of Le Blanc-Mesnil, Regional councillor of Île-de-France

### T8 • EST ENSEMBLE

#### SYCTOM'S VICE-PRESIDENT

**Corinne VALLS**  
8<sup>th</sup> Vice-President  
Mayor of Romainville, Vice-President of the Departmental Council of Seine-Saint-Denis, Metropolitan councillor


#### SYCTOM'S DELEGATES

**Laurent ABRAHAMS**  
Deputy Mayor of Montreuil

**Jacques CHAMPION**  
Deputy Mayor of Romainville

**Stéphane WEISSELBERG**  
Deputy Mayor of Romainville

#### SYCTOM'S BOARD MEMBERS

**Marie-Rose HARENGER**  
Deputy Mayor of Noisy-le-Sec

**Christian LAGRANGE**  
Delegate Municipal Councillor of Les Lilas

#### ALTERNATE REPRESENTATIVES

**Mireille ALPHONSE**  
Municipal councillor of Montreuil

**Asma GASRI**  
Deputy Mayor of Romainville

**Laurent JAMET**  
Municipal councillor of Bagnolet

**Hervé LEUCI**  
Municipal councillor of Bobigny

**Olivier STERN**  
Municipal councillor of Les Lilas

### T9 • GRAND PARIS GRAND EST

#### SYCTOM'S VICE-PRESIDENTS

**Jean-Pierre BOYER**  
13<sup>th</sup> Vice-President  
Deputy Mayor of Rosny-sous-Bois

#### SYCTOM'S BOARD MEMBER

**Bernard CACACE**  
Deputy Mayor of Le Raincy

#### SYCTOM'S DELEGATES

**Pierre-Étienne MAGE**  
Deputy Mayor of Villemomble

**Pierre-Yves MARTIN**  
Mayor of Livry-Gargan, Metropolitan councillor

#### ALTERNATE REPRESENTATIVES

**Christine GAUTHIER**  
Deputy Mayor of Les Pavillons-sous-Bois

**François MARTINACHE**  
Deputy Mayor of Neuilly-Plaisance

**Michel RINGRESSI**  
Deputy Mayor of Vaujours

**Ludovic TORO**  
Mayor of Coubron, Regional councillor of Île-de-France, Metropolitan councillor

### T10 • PARIS EST MARNE & BOIS

#### SYCTOM'S VICE-PRESIDENT

**Jean-Luc CADEDDU**  
15<sup>th</sup> Vice-President  
Deputy Mayor of Maisons-Alfort

#### SYCTOM'S DELEGATES

**Jean-Jacques GRESSIER**  
Deputy Mayor of Joinville-le-Pont

**Alain GUETROT**  
Deputy Mayor of Saint-Maurice

**Laurent LAFON**  
Senator of Val-de-Marne, Municipal councillor of Vincennes

**Marie-Hélène MAGNE**  
Deputy Mayor of Charenton-le-Pont

#### SYCTOM'S BOARD MEMBER

**Florence CROCHETON**  
Deputy Mayor of Saint-Mandé

#### ALTERNATE REPRESENTATIVES

**Éric BENSOUSSAN**  
Deputy Mayor of Vincennes

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

**Jean-Pierre CRON**  
Deputy Mayor of Charenton-le-Pont

**Thomas MURGIA**  
Municipal councillor of Saint-Mandé

**Stéphan SILVESTRE**  
Municipal councillor of Joinville-le-Pont

**Frédéric TURPIN**  
Municipal councillor of Maisons-Alfort

### T12 • GRAND-ORLY SEINE BIÈVRE

#### SYCTOM'S VICE-PRESIDENT

**Philippe BOUYSSOU**  
7<sup>th</sup> Vice-President  
Mayor of Ivry-sur-Seine, Metropolitan councillor

#### SYCTOM'S BOARD MEMBERS


**Samuel BESNARD**  
Deputy Mayor of Cachan

**Jorge CARVALHO**  
Deputy Mayor of Villejuif

#### SYCTOM'S DELEGATES

**Stéphanie DAUMIN**  
Mayor of Chevilly-Larue, Metropolitan councillor, President of RIVED

**Pascal REISSER**  
Municipal councillor of Kremlin-Bicêtre

**Patrick RATTER**  
Deputy Mayor of Valenton

**Bamadi SANOKHO**  
Deputy Mayor of Gentilly

**Romain ZAVALLONE**  
Municipal councillor of Ivry-sur-Seine

#### ALTERNATE REPRESENTATIVES

**Françoise BAUD**  
Mayor of Valenton

**Elisabeth HUSSON-LESPINASSE**  
Municipal councillor of Gentilly

**Ibrahima KONATE**  
Municipal councillor of Vitry-sur-Seine

**Alain LIPIETZ**  
Municipal councillor of Villejuif

**Robert ORUSCO**  
Municipal councillor of Cachan

**Monique RAFFAELLI**  
Municipal councillor of Le Kremlin-Bicêtre

**Jean-Emmanuel ROUGIER**  
Municipal councillor of Vitry-sur-Seine

### VERSAILLES GRAND PARC AGGLOMERATION COMMUNITY

#### SYCTOM'S VICE-PRESIDENT

**Philippe BRILLAUD**  
12<sup>th</sup> Vice-President  
Mayor of Le Chesnay, Departmental councillor of Les Yvelines

#### SYCTOM'S DELEGATES

**Magali ORDAS**  
Deputy Mayor of Versailles

**Luc WATTEL**  
Mayor of Bougival, Vice-President of the Versailles Grand Parc AC

#### ALTERNATE REPRESENTATIVES

**Violine CHARPENTIER**  
Municipal councillor of Chesnay

**Frédéric HUCHELOUP**  
Deputy Mayor of Vélizy-Villacoublay

**Marc TOURELLE**  
Mayor of Noisy-le-Roi

## MAP OF THE TERRITORIES AS ON 1<sup>st</sup> JANUARY 2019

**12**

**MEMBER TERRITORIES OF SYCTOM**

11 territories of the Greater Paris Metropolis and the Versailles Grand Parc Agglomeration Community

**85**

**MUNICIPALITIES IN SYCTOM'S TERRITORY**

**6**

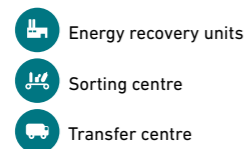
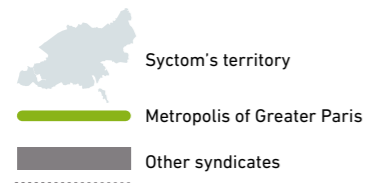
**MILLION INHABITANTS**

i.e. nearly 10% of the French population  
*Estimation based on the last known census*

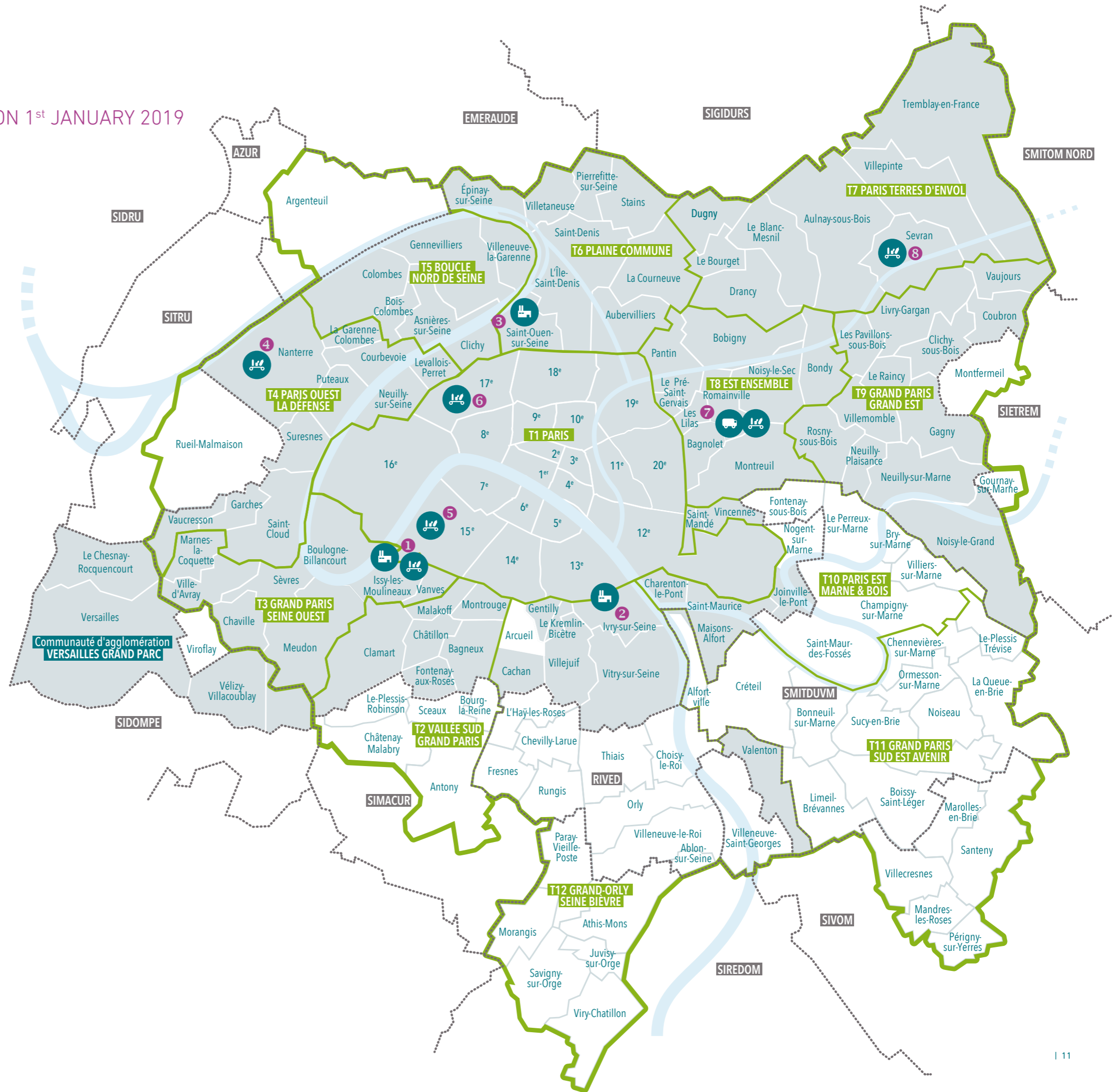
**90**

**DELEGATES**

representing Syctom's member territories



- 1 ISSÉANE, ISSY-LES-MOULINEAUX
- 2 IVRY/PARIS XIII
- 3 L'ÉTOILE VERTE, SAINT-OUEN-SUR-SEINE
- 4 NANTERRE
- 5 PARIS XV
- 6 PARIS XVII
- 7 ROMAINVILLE
- 8 SEVRAN





## FEBRUARY

15/Syctom signs a partnership agreement as part of the **"Inclusive and concerted management of solid waste"** project in Dolisie, Congo, led by GRET, an international development NGO. **1**

## MARCH

15/**Scientific sponsorship** with Fondation Autisme to conduct a study on the correlation between autism and exposure to heavy metals.

18 to 23/Participation in the **World Water Forum** in Brasilia and presentation of the Cometha project with SIAAP. **2**

21/The Environmental Authority of the General Council for the Environment and Sustainable Development (CGEDD) issues a deliberated opinion on the **project at Ivry/Paris XIII**.

24/Launch of the **"Zero Waste"** challenge at Montrouge.



## SEPTEMBER

12/ 7th edition of the **Zero Waste Design competition**: launched by Matali Crasset, patron of this year's edition as part of the Paris Design Week. **6**

## SEPTEMBER

21/**Syctom / SIAAP Cométha project**: A technical morning workshop, at the Auditorium du Monde, during which the four contracting groups presented the progress of their research. **7**



## MAY

17/**Étoile Verte at Saint-Ouen-sur-Seine**: launch of modernisation and urban integration works. **3**

30 May to 08 June/**"10/10, To your bins!!"** operation: Syctom opens the doors of its facilities and celebrates the 10th anniversary of Isséane. **4**



## OCTOBER

11/Claudia Sheinbaum, Mayor of Mexico City, **visiting Isséane**.

11 to 15/A **Syctom delegation visits San Francisco** in connection with the upcoming obligation to sort organic waste at source. **8**

13/Romainville celebrates one year of **food waste sorting**: events in the Bas-Pays district.

## JUNE

08/Launch of a call for projects for the local treatment of **food waste**.

09 to 13/ **Zero Waste Design competition**: awards ceremony at Le Hasard Ludique in Paris.

22/Presentation of the **corporate social responsibility (CSR)** action plan and the eight priority projects at the Syndicate committee meeting.



## JULY

03/**Future of smart waste?** : conference at the Grand Palais in Paris with a speech by Raphael Enthoven and visit to the "Artists & Robots" exhibition guided by the curator, Miguel Chevalier. **5**

06/Josh Frydenberg, Minister for the Environment and Energy of Australia, **received by Syctom's President in Isséane**.

## NOVEMBER

05/Standard & Poor's awards **A+ rating to Syctom**.

23/Syctom receives the operating permit for **the ERU at Ivry/Paris XIII**. In 2018, Syctom successively obtained the favourable opinion of the CGEDD, the commission of inquiry, and the building permit for the future centre at Ivry/Paris XIII.

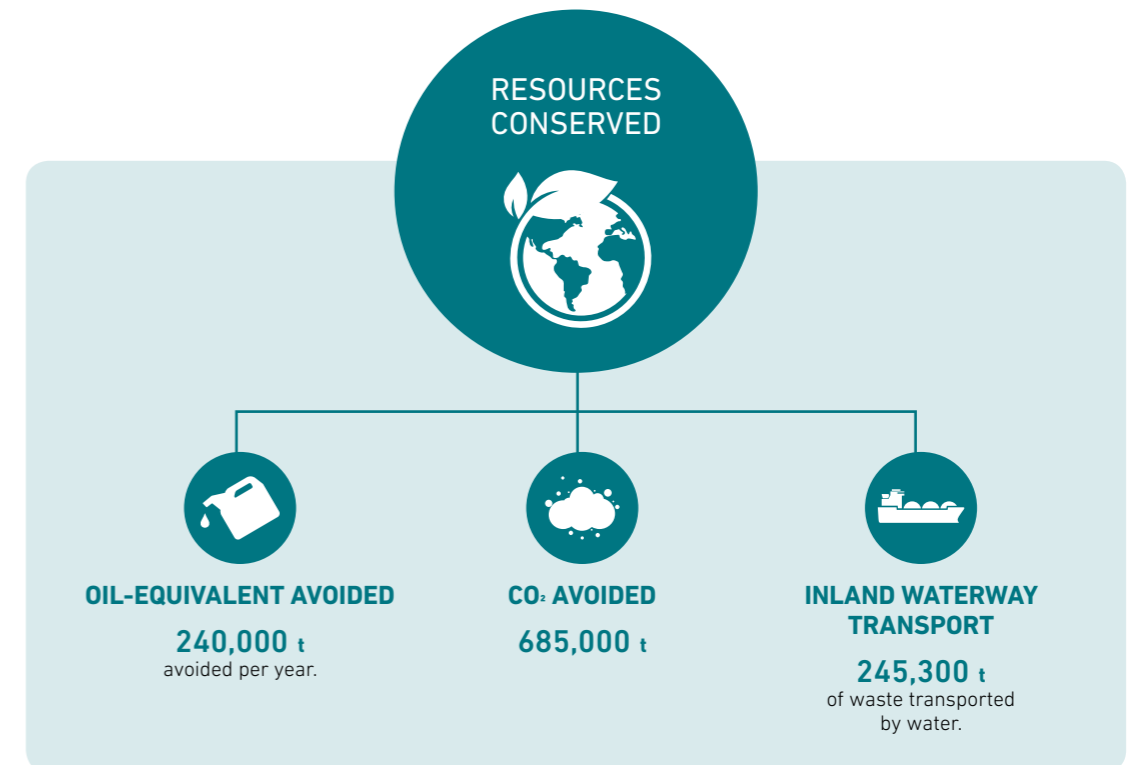
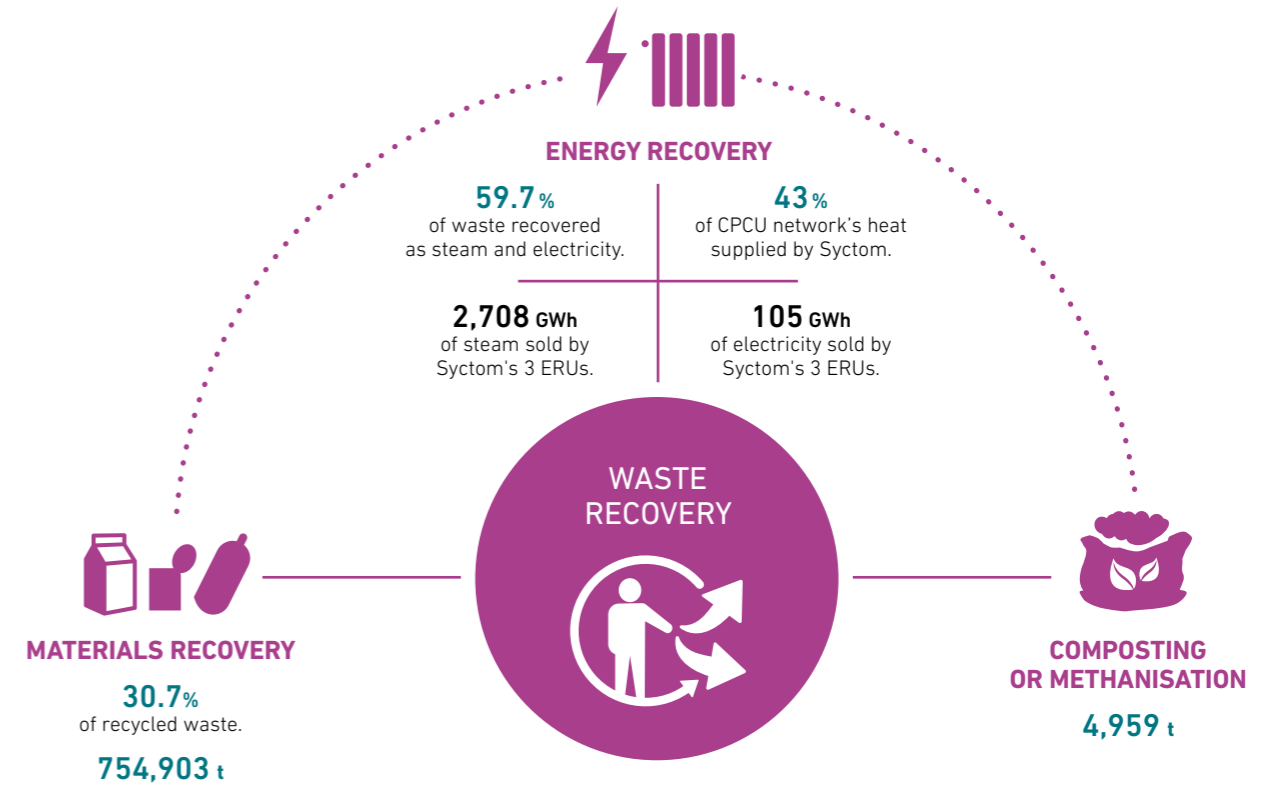
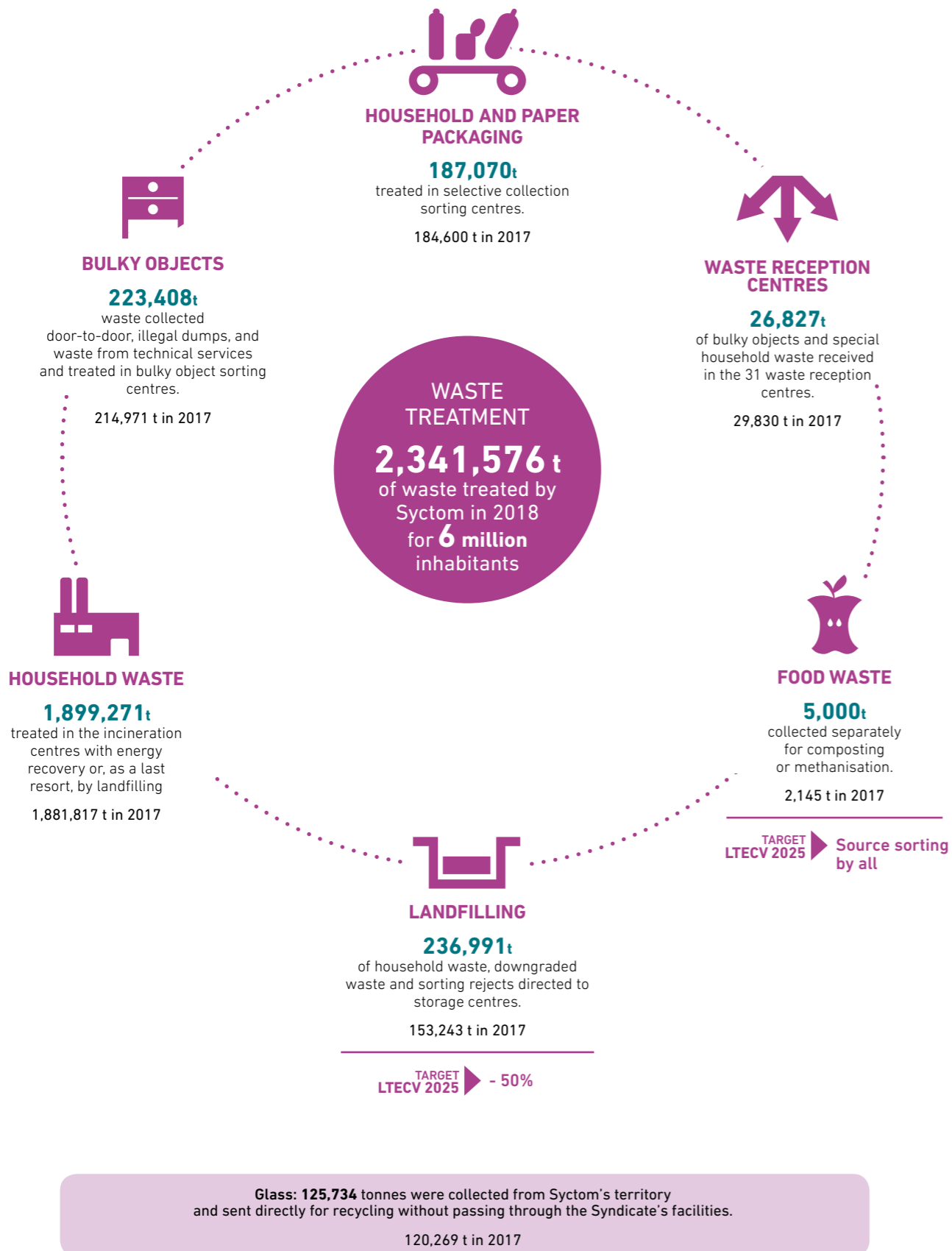
## DECEMBER

FROM 05/ **"Landscapes of Architecture"** exhibition by **Raymond Depardon** at the The French Playing Card Museum with photos of Isséane.

13/**National conference on household waste** at the Maison de la Chimie on the theme, "How to build a profitable circular economy?". **9**



# KEY FIGURES





# EFFICIENCY AND PROXIMITY ON A DAILY BASIS

Recover, recycle, re-use: Syctom is constantly adapting its industrial tool to achieve the ambitious objectives set by the French laws and the new European directives. As a public waste treatment service in the Ile-de-France region, it has also become a key player on the ground, keenly attentive to local issues. This two-pronged focus allows it to stride forward to meet the future deadlines confidently and pragmatically.

*“2018 marked the completion of a large number projects to modernise our equipment.*

*The works worth €1 billion will not only increase the efficiency of our facilities, especially in terms of sorting, but also strengthen their environmental performance.*

*We are very mindful of the ecological aspect, as well as the general acceptance of our centres. That’s why we are forging relationships of trust with the residents and elected officials of the territories in which we are located, as well as with the Greater Paris Metropolis, the Île-de-France Region and the French State. Syctom teams’ expertise and commitment allow us to fulfil our mission in a spirit of dialogue and respect.”*

**Martial LORENZO,**  
General manager of services, Syctom

## SEVRAN

## Sorting centres for selective collection

Catchment area: 350,000 inhabitants • 19,141 tonnes received in 2018  
 Operating capacity: 20,000 tonnes • Sorting of plastic packaging as per extended instructions since 2012 • Modernisation of the centre in 2014 and its optimisation for extended sorting instructions in 2016 • Operator: IHOL



## SYCTOM'S PRIORITY: EVER GREATER WASTE RECOVERY

Syctom adapts its equipment and sets up new organisations to transform the 7,500 tonnes of waste collected every day into resources.

Recycling, composting, energy recovery: whatever the solution chosen, it is in line with the rationale of a more sustainable and more responsible circular economy.

### GIVING WASTE A NEW LEASE OF LIFE

The year 2018 was marked by the continued extension of sorting instructions (ECT) for packaging, which now covers the majority of Syctom's territory. In fact, seven territorial public institutions<sup>1</sup> in Greater Paris Metropolis now apply these new sorting methods. What is this about? The contents of the yellow bin, which accepts all plastic packaging as part of the ECT. This extension implies a change in practices at all levels: for the residents, for the local authorities that collect waste, and then at the end of the chain, the treatment centres.

### The 2020 horizon

While Syctom is clearly a step ahead in the adaptation of its industrial tool (see page 19), it has also been actively involved in supporting the local authorities and the residents. From a financial point of view, first of all, it pays grants as part of the 2015-2020 support plan. Syctom then offers technical and operational support to its member local authorities so that they can adapt and improve their collection systems. Lastly, it provides local authorities with new means of raising awareness among the citizens: turnkey information tools and the mobilisation of several teams of eco-facilitators.

<sup>1</sup> - Paris, Plaine Commune, Paris Terres d'Envol, Est Ensemble, Grand Paris Grand Est, Paris Est Marne & Bois, Grand-Orly Seine Bièvre.

This is how Syctom meets the challenge of ECT, which will cover its entire territory in 2020, i.e. two years ahead of the deadline set by the Energy Transition for Green Growth Act.

### WASTE RECEPTION CENTRES, THE HUB OF RECOVERY

In addition to the extension of sorting instructions, a prerequisite for improving waste recovery through recycling, Syctom has multiplied and redoubled its efforts to benefit the network of 31 waste reception centres in its territory in 2018. These centres play a vital role in promoting recycling and reuse, especially as they cover a growing spectrum of objects. In 2018, Syctom entered into new contracts to pool the reception and treatment of green waste (normal plant waste and dead leaves) on the one hand, and bulky objects similar to building site waste, on the other hand. The recovery potential of the latter, consisting largely of rubble, is high for backfilling quarries.

More broadly, as part of its support plan for prevention and sorting operations, planned for the 2015-2020 period and co-financed by ADEME and the Île-de-France Region, Syctom intensified its financial support to the deployment of mobile waste centres. To benefit from this, the waste reception centres that make "rounds" on the field must accept bulky objects, rubble, waste electrical and electronic equipment and green waste. They must also provide a space dedicated to the promotion of reuse.

### RECOVERY CENTRES: NEW SOURCES FOR RECYCLING

The 45 initiatives subsidised by Syctom in 2018, as part of re-use, mainly benefited the recovery and recycling centres in its territory, for a total budget of €2 million. These grants, paid to 28 structures, associations, social landlords or local authorities, come under the investment or operating sections of the selected projects. With respect to the "investment" component, Syctom contributes up to 30% of the total amount excluding tax, with a ceiling of €300,000: it thus finances expenses related to development, construction or purchase of equipment. In terms of operations, Syctom, which can cover up to 80% of the total amount excluding tax, with a ceiling of €25,000, finances strategic studies and the deployment of awareness-raising



In May 2018, Syctom signed a new contract with the eco-organisation Eco-mobilier for the collection and treatment of furniture waste (DEA). This contract provides for the installation of a larger number of furniture waste collection points in Syctom's territory to give a boost to its separate collection.

In  
**2020**,  
 the extension of the sorting instructions will be effective throughout Syctom's territory

and re-use promotion actions. While in terms of investment, Syctom intervenes alongside other financiers (Region, Public territorial institutions (EPTs), Europe), it is often the only funder for the operational component.

### "MORA-LE-BRONZE" PROJECT, IN ROMAINVILLE

In 2018, Syctom launched a call for projects for the implementation of a temporary recovery centre in Bobigny, pending the commissioning of its future waste treatment centre in Romainville/Bobigny in 2023. This recovery centre, which will occupy the site called "Mora-le-Bronze", from June 2019 to June 2022, will be tasked with collecting objects that the owners wish to dispose of, refurbishing them, selling them at reasonable prices and proposing actions to raise awareness about and promote reuse, to benefit the residents and the local stakeholders. The winning project, selected in 2019, will be supported financially by Syctom during its three years of activity.



Collection of food waste

**BIOWASTE RECOVERY: FROM COMPOSTING TO COLLECTION**

French laws, European directives and the Government's road map for a circular economy (FREC): many are the regulations that today urge us to take a fresh look at food waste, which accounts for one third of our bins. This new look requires the implementation of specific systems, since the at-source sorting of this waste will be mandatory from 2025.

**Local composting within everyone's reach**

Syctom invites its member local authorities to participate in this process of biowaste recovery through local composting: installing composting equipment on its territory (60,000 since 2011) with the support of masters composters, providing awareness-raising tools and training

local relays (500 individuals, volunteer members, teachers, donors, etc.).

Building on this foundation of actions, we launched a website on urban composting in 2018. At [www.jecomposteenville.fr](http://www.jecomposteenville.fr), Internet users can find advice tailored to their circumstances (apartment, residence with garden) and their expectations (individual or shared composting). A geolocation tool even helps them to identify the solution closest to their home with just a click.

**4,959**  
tonnes of food waste treated in 2018

**The players in biowaste collection**

In addition to the support for local composting, Syctom assists its member local authorities in implementing a separate collection of food waste: studies, technical solutions, awareness-raising. Syctom also offers them a very attractive rate (€5 per tonne) for the treatment of biowaste.

In 2018, 9 of the 12 territories of the Greater Paris Metropolis embarked on this experimental collection, i.e. 44 municipalities involved to varying degrees. With the help of Syctom, these local authorities organised the collection of food waste from community restaurants, markets, schools and households. Once collected, this waste is transferred outside Syctom's territory, mainly to methanisation sites and then to a composting centre.

**WASTE, AN ABUNDANT ENERGY SOURCE**

When the recyclable waste has been sorted, the residual household waste is incinerated at very high temperatures in Syctom's three energy recovery units (ERU). Thanks to the cogeneration system, the heat produced by this combustion is partly converted into electricity, which allows Syctom to run its plants and to sell the surplus electricity produced to EDF.

**Priority for steam**

But apart from this electricity generation, Syctom's ERUs mainly feed the networks of the Compagnie Parisienne de Chauffage Urbain (CPCU, Paris urban heating company). Since 2016, Syctom has undertaken to provide an annual steam quota to the CPCU. This volume, which was set at 3,519,000 tonnes in 2018, finally reached 3,691,442 tonnes of steam injected into the CPCU network. This contribution proved particularly significant in early 2018, when Île-de-France experienced an episode of extreme cold weather and the increased heating needs of Parisian housing and public facilities had to be covered. The key role of heat from household waste explains why Syctom gives priority to this energy production. That is why, to fulfil its contract with the CPCU, it subtly regulates its facilities, going as far as resting its turbine-generator units (GTA) in order to give priority to steam production, at the expense of electricity. New regulating devices were also installed in 2018 on the Isséane GTA to meet its delivery commitments to CPCU.

**Going even further**

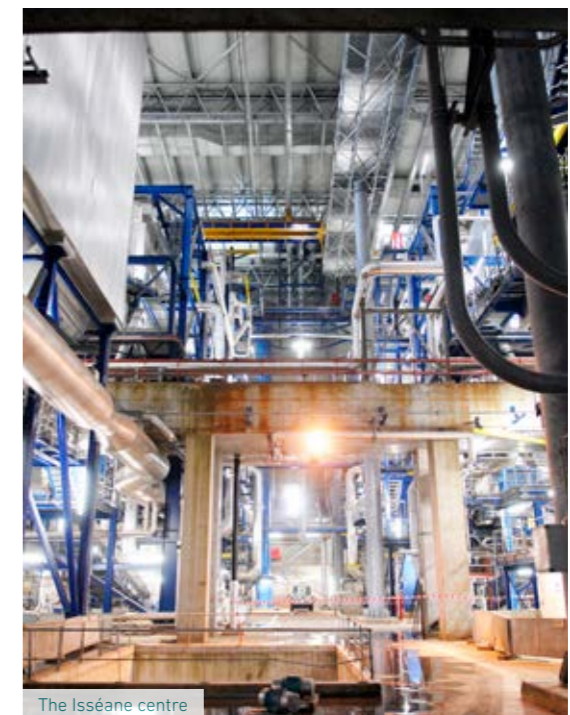
Aware of current energy issues, Syctom strives to diversify and optimise the performance of its facilities. As far as diversification is concerned, it is increasingly using the energy contained in biowaste: enclosed in a fermentation tank, this waste produces biogas, which is converted by cogeneration into electricity and heat. It is also working with SIAAP and SIGEIF on promising methanisation projects (see page 21).

To optimise its energy production capacity, Syctom entered into new urban logistics contracts in 2018, which allow it to store household waste temporarily.

**TOWARDS MICRO-LOCAL SOLUTIONS?**

In 2018, Syctom launched a call for projects to encourage the micro-local management of food waste collected in its territory. Out of the sixteen applications received, it selected three projects. While two of the selected projects provide for the implementation of electromechanical composting – the project submitted by Les Alchimistes in the Clos Saint-Lazare district in Stains and the one by Travail et Vie in the La Villette district in Paris – the third, led by Bee & Co will use a micro-methanisation process in Vitry-sur-Seine.

The project promoters plan to treat between 50 and 300 tonnes of biowaste per year, from non-household producers (restaurants, shops, central kitchens, markets) or households. Syctom will assist them and support them financially for three years.



The Isséane centre

Designed as a "waste hub", this system is a flow control tool: during periods of high ERU activity, a small part of the waste is stored and then redirected towards the facilities whose treatment capacity has been freed up. This makes it possible to correct the variations in the quantities of treated waste and thus optimise the recovery capacities of the centres.

**30%**  
of the volume of household waste is made up of food waste

Finally, a procedure was launched in 2018 for renewing the contract for operating the Isséane energy recovery unit, tasked with converting 510,000 tonnes of waste into green energy each year during the 2019-2027 period.

ÉTOILE VERTE / SAINT-OUEN-SUR-SEINE

Energy recovery unit • Catchment area: **1.45** million inhabitants  
**488,611** tonnes incinerated in 2018 • Authorised capacity: **650,000** tonnes  
 Operator: Dalkia Wastenergy • Modernisation and urban integration work by 2022



Architectural design: Reichen et Robert & Associés

## THE MEANS DEPLOYED: SECURING AND MODERNISING

A recognised expert in its area of expertise, Sycotom, driven by a concern for exemplarity, pursues a demanding policy year after year, both to guarantee the safety of its staff and the environment of its facilities and to modernise its centres. To this end, it undertakes short-term works and initiates longer-term research programmes.

### THE SAFETY OF FACILITIES, A DAILY CONCERN

As owner of its industrial facilities, Sycotom makes it its top priority every year to maintain a high level of safety in its centres. In 2018, it launched several calls for tenders to improve the fire protection of the sites at Issy-les-Moulineaux (Isséane) and Ivry/Paris XIII. For the latter, the €2 million budget attests to the magnitude of the planned work: better system for the prevention and detection (with infrared cameras) of fire outbreaks in household waste pits, reinforcement of the network of fire hose stations, enhanced reliability of water supply to the site or implementation of specific protections for certain equipment such as the turbine-generator units.

### Works at all sites

Various actions are also deployed to ensure compliance of the equipment of the various centres in all circumstances. In Isséane, access to hazardous areas was secured in 2018, along with the area surrounding the turbine and the conditions for transporting bottom ash (solid residues from waste incineration). In Saint-Ouen-sur-Seine, while securing the unloading docks was completed in 2018, studies began to improve the security of access to the machines. The sorting centre in Nanterre benefited from the same type of work in the second quarter of 2018.

### Focus on metalwork-locksmithing

Installation of guardrails, fire doors, safety barriers: several such operations require the intervention of companies specialising in metalwork and locksmithing. To complete them successfully, Sycotom entered into a four-year framework agreement in 2014, which it renewed in 2018.

### SORTING CENTRES TAKE UP THE CHALLENGE OF NEW INSTRUCTIONS

Sycotom did not wait until 2018 to prepare its industrial tool for the extension of sorting instructions (ECT) for packaging. After carrying out major works in its sorting centres in Sevrans, in 2014, and Romainville, in 2016, it is committed to broadening the extension of sorting instructions across its territory by 2020. In total, €90 million will be earmarked for this.

#### WEIGHING, THE FOCUS OF ALL OUR ATTENTION

In Sycotom's centres, waste collection trucks are suitable for double weighing, before and after unloading. As the difference between the two weights determines the future billing, this weighing demands reliable terminals and management software. This is why all the terminals were replaced between June and September 2018, for a budget of more than €450,000.

### Technological challenge

The centres in Paris XV and in Nanterre will be equipped, in 2019 and 2020 respectively, with machines capable of recognising and separating the various plastic resins that the ECT is now collecting together in yellow bins. Highly efficient optical and

aerualic processes guarantee a finer sorting of plastic films, trays and jars.

This increased mechanisation of the sorting line also entails an improvement in the working conditions of the agents.

### Sorting capacities ramped up

Apart from quality targets, Sycotom's investment plan anticipates an increase in selective collection tonnage. Planned over the 2015-2020 period, the works undertaken in Romainville, Sevrans, Paris XV and Nanterre will allow more than a 50% increase in the sorting capacity of these centres, from 105,000 to 160,000 tonnes.

These adaptations of the existing tool will be supplemented by the sorting potential of the new centre under construction in the 17th arrondissement in Paris. With an annual treatment capacity of 45,000 tonnes, it will enable Sycotom to handle 205,000 tonnes of sorted waste per year.

### A challenging transitional period

During this period of intense work that requires the closure of the sorting centres, Sycotom ensures the continuous reception and sorting of selective collection by entrusting its transfer and treatment to external centres with stringent requirements in terms of performance and compliance with the extension of sorting instructions.

#### THE FUTURE OF ISSÉANE'S SORTING CENTRE

Initially designed as a multi-channel centre, the Isséane sorting centre will become a centre for receiving and transferring food waste and packaging. This is an essential change to comply with the obligation of at-source sorting and organic recovery of biowaste, laid down in the 2015 Energy Transition for Green Growth Act: Isséane will receive some 10,000 tonnes of such waste a year.



The selective collection sorting centre in Paris XVII under construction



**IVRY / PARIS XIII**  
 Energy recovery unit • Catchment area: **1.55 million inhabitants**  
 • **686,788 tonnes** incinerated in 2018  
 Authorised capacity: **730,000 tonnes (350,000 tonnes for the new project, i.e. -50%)** • Operator: IP13  
 Reconstruction by 2027  
 Architectural design: AIA Life Designers

**MODERNISING THE ENERGY RECOVERY CENTRES**

Syctom's focus on the efficiency of its facilities also extends to its energy recovery units (ERUs), which are being modernised with the two-fold aim of efficiency and respect for the environment.

**Three projects in one at Saint-Ouen-sur-Seine**

Commissioned in 1990 in a highly industrial environment, the ERU at Saint-Ouen-sur-Seine, renamed the Étoile Verte (Green Star) by the residents, is today in the heart of the eco-district of the Docks. In May 2018, Syctom launched a large-scale project, carried out while the site is in operation, to enhance the architectural and urban integration of the facility and improve its environmental performance.

More than 207 million euros are being invested to carry out three distinct operations over four years: the installation of a system for the dry treatment of flue gas, the setting up of an industrial wastewater treatment and the urban integration of the site. The latter operation, entrusted to the architecture firm Reichen and Robert & Associés, aims, first, to limit the nuisance from the traffic caused by the centre's activity: the entrance is being shifted to RD1,

construction of a tunnel along the Rue Ardoin, and creation of a ferry to dispose of the bottom ash via the Seine. Secondly, the line of action is to reduce olfactory nuisances through more air-tight buildings and to guarantee the integration of the facility into the landscape by the revegetation of its surroundings and roofs.

The integration of the site will finally be achieved both physically and artistically, through an agreement signed to connect the centre to the district's urban heating network and through the creative lighting of the digital artist Miguel Chevalier (see page 23).

**The progress made by the project at Ivry/ Paris XIII**

The project for the construction of a new energy recovery unit at Ivry/Paris XIII obtained the building permit and the operating licence at the end of 2018. Although this final approval of the State has brought nearly ten years of discussions to a close, it does not however end the interactions with the stakeholders in the territory, as Syctom is keen to inform and bring together the residents throughout the project.

The construction of the ERU, which began in the autumn of 2018, will be completed in 2023. The current household waste incineration plant (HWIP) will then be dismantled once the new plant is in operation in order to guarantee the continuity of the public service.

The new facility will have a treatment capacity reduced by half (350,000 tonnes per year). It will have state-of-the-art equipment and quality architectural and landscaping integration. In the longer term, this project could be completed by the construction of an organic recovery unit and a waterway hub. Studies are in progress.

**INNOVATING FOR MORE EFFICIENCY**

The transformation project at the waste treatment centre in Romainville/Bobigny reached an important milestone in 2018: following the preliminary consultation in 2017, Syctom launched a competitive dialogue procedure, which should lead to the signature of an overall public performance contract by the end of 2019. This will include the design and reconstruction of the facility, as well as its operation and maintenance.

This project is innovative in more ways than one. Technically, it has several objectives: reuse in recovery centres, materials recycling, organic recovery and energy recovery, for which it implements a natural residual household waste (RHW) drying process that reduces the mass of waste before disposing it off via waterway to Syctom's ERUs while optimising energy production. In terms of capacity, the new centre will be able to receive 350,000 tonnes of RHW per year, 60,000 tonnes of multi-materials from selective collection, 40,000 tonnes of food waste and 15,500 tonnes of voluntary contributions at the waste reception centre or in a recovery centre.

The innovation in Romainville/Bobigny also resides in the manner in which the stakeholders of the territory were and are always associated with the project: consultations under the aegis of a guarantor appointed by the National Commission of Public Debate, monitoring committee, project website,

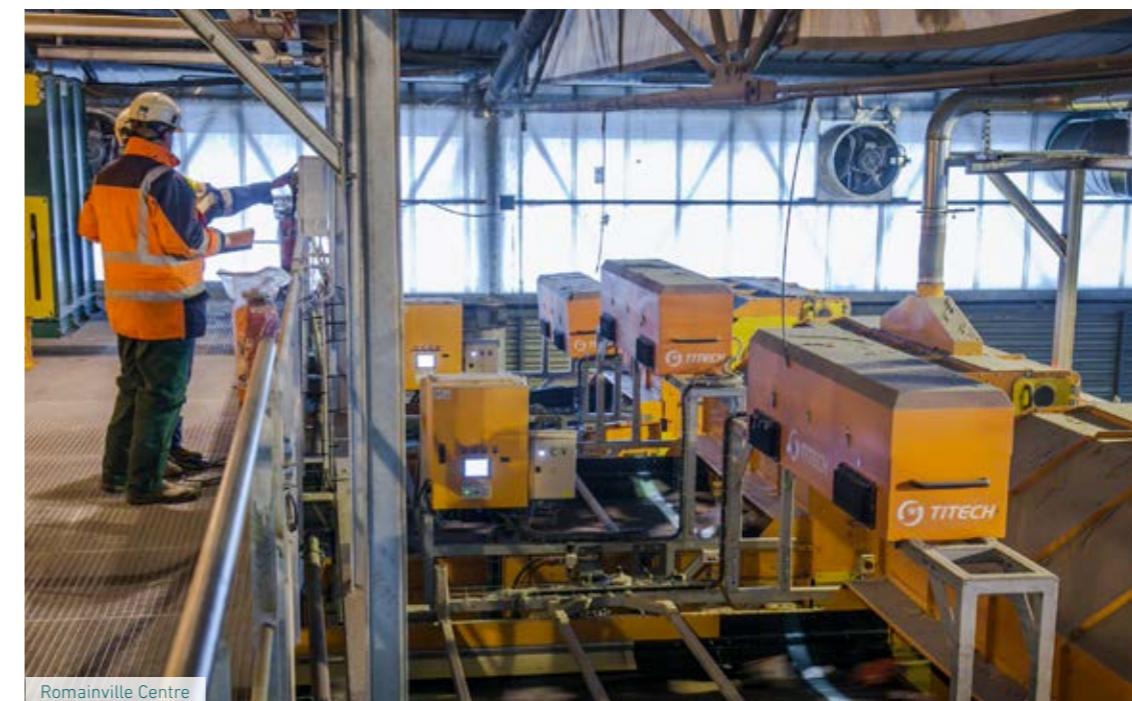
**€350M**  
 this is the cost excluding tax of the operation in Romainville / Bobigny (non operational)

traveling exhibition and setting up of a Citizens Group (see page 23). This co-construction approach reflects Syctom's commitment to ensure continuity of service during the works, contain the nuisances and ensure the architectural and landscaping integration of the project. Public participation and information will continue until the new facility is commissioned in 2025.

**INNOVATION PARTNERSHIPS**

In 2017, Syctom launched the Cométhra project with the Syndicat Interdépartemental pour l'Assainissement de l'Agglomération Parisienne (SIAAP) to convert organic matter – derived from household waste and wastewater treatment – into biogas. In 2018, the two partner syndicates appointed four consortiums of entrepreneurs and researchers to design a new process: carry out laboratory tests and trials in three phases, develop a pilot co-methanation treatment unit and then an operational unit. The four teams presented their initial work during a technical and scientific morning workshop in September 2018.

With the Syndicat intercommunal pour le gaz et l'électricité en Île-de-France (SIGEIF), Syctom is involved in a project to create a biowaste methanation unit in Gennevilliers. The aim is not only to meet the regulatory targets of biowaste sorting and recovery, but also to address the priorities of the regional climate, air and energy plan of Île-de-France. Following the signing of a consortium agreement in 2017, the feasibility study was completed in 2018. In October 2018, the two partners decided to continue the project with a view to commissioning the facility in late 2024.



Romainville Centre

**ROMAINVILLE**  
 Sorting centres for selective collection  
 Catchment area: 1.3 million inhabitants • 50,774 tonnes received in 2018  
 Operating capacity: 53,000 tonnes • Sorting of plastic packaging with extended instructions and small metals since 2015 • Operator: Urbaser  
 Transfer centre  
 392,689 tonnes received in 2018 • Operator: GENERIS



## THE METHOD: DIALOGUE, COOPERATION AND SUPPORT

As a committed player in its territory, Syctom cultivates a broad and future-looking vision of its missions. It does not just perform its industrial functions, but also raises awareness and galvanises local authorities, associations and citizens around environmental issues related to waste treatment. This involvement is certainly bearing fruit.

Nearly  
**2,000**  
 half-days of awareness-raising by eco-facilitators in 2018.

### INFORMING AND MOBILISING THE PLAYERS IN THE TERRITORY

Syctom supports the projects and actions of local authorities in the field. Its contribution includes providing awareness-raising tools, human resources and subsidies. It is mainly geared towards prevention and sorting actions: in 2018, subsidies amounting to €2,047,473 were paid to projects focussed on reuse, recycling, composting or the fight against food waste. More generally, in 2018, Syctom strove to help local authorities develop their local programme for the prevention of household and similar waste (PLPDMA). Syctom's involvement also includes training and experience-sharing: 24 "composting advisors" training courses were organised in 2018, benefiting 295 people.

### New material and human tools

To carry out these various missions, Syctom created a new organisation in 2018 that makes the "territorial point of contact" the keystone in supporting the member local authorities. Better informed about local issues, this point of contact is able to meet their needs, be it to implement the collection of food waste, to assist them in the extension of the sorting instructions or to develop personalised guidance actions. Syctom also produced a new "Aid Guide" in 2018 (which describes its 2015-2020 support plan), and increased the number

of its eco-facilitators. Divided into four teams, 40 eco-facilitators today meet requests from the members for events and intervention on the ground.

### A large-scale awareness-raising operation

From 30 May to 10 June 2018, the "10/10, To your bins!!" operation made it possible to organise many events for schoolchildren and the general public: open days at Syctom centres, exhibitions, theatrical events, thematic forums, youth activities, and more. Launched to mark the 10th anniversary of Isséane, this initiative met with great success.

### "ZERO WASTE" CHALLENGE IN MONTROUGE

Sensitive to the fight against wastage and the production of waste, 63 families in Montrouge have, since March 2018, been taking up the "Zero Waste" challenge launched by the City, the Vallée Sud-Grand Paris territory and Syctom. Equipped with composting and sorting equipment, they receive support to gradually reduce the contents of their bin.

### INITIATING COOPERATION ON THE SCALE OF THE METROPOLIS AND THE REGION

Syctom organises meetings and constructive discussions with its counterparts in neighbouring territories several times a year. This is evidenced by the regular meetings of the presidents and general managers of the household waste treatment syndicates active in Île-de-France. For instance, the meeting held in October 2018 aimed to draw up the Regional plan for the prevention and management of household waste (PRPGD).

Cooperation at the metropolitan level is also reflected in agreements between Syctom and various neighbouring syndicates, in view of pooling and optimising treatment equipment. In 2018, Syctom signed a cooperation agreement with the Syndicat intercommunal pour le traitement et la valorisation des déchets (SITREVA), which brings together 197 municipalities spread over four departments. This agreement allows Syctom to use the SITREVA energy recovery unit located in Ouarville (Eure-et-Loir), particularly during the works at the ERU in Saint-Ouen-sur-Seine.

The agreement of understanding between Syctom and the Syndicat mixte d'enlèvement et de traitement des résidus ménagers (SIETREM - Saint-Thibault-des-Vignes, Seine-et-Marne) allows the mutual use of each other's facilities.



In Saint-Ouen-sur-Seine, Miguel Chevalier's Pixels Light project, developed in collaboration with the architects of Reichen et Robert & Associés, uses light, colours and movement to showcase the future architecture of the Étoile Verte, in the heart of the Docks district. For the Ivry/Paris XIII project, a delegated producer was appointed at the end of 2018 to implement a HQAC (high artistic and cultural quality) programme, developed by Stefan Shankland, and which will be complemented by a social and participatory component.

### DIALOGUE WITH STAKEHOLDERS

Syctom forges long-term relationships with the local authorities and citizens. In 2018, it set up a working group on waste collection that brought together representatives of municipalities in the region, which met six times to draw up a charter of best practices for the use of waste treatment centres.

A Citizens Group of around 40 people met six times in 2018 around the transformation project in progress at the Romainville/Bobigny centre, to discuss the architectural and environmental dimensions of the project and to suggest ideas to the Monitoring committee.

In another demonstration of its involvement in the region, Syctom sought the assistance of Est Ensemble in 2018 in order to benefit from its expertise in the field of social integration. The two local authorities signed a partnership agreement so that EPT can support Syctom in the implementation of social integration clauses in the design, construction and operation of the future centre in Romainville / Bobigny. Such clauses must allow the territory, its businesses and jobseekers to benefit fully from the economic spin-offs of the project.

# WHEN SORTING WASTE AT SOURCE BECOMES EVERYONE'S BUSINESS

While families in Montrouge have taken on the challenge of halving the volume of their waste, residents in Sycotm's territory increasingly came forward in 2018 to become familiar with the new sorting instructions and food waste collection. The merchants also joined this experimentation. Aware of its responsibility, Sycotm supports the local authorities in changing attitudes and habits.



*We cannot accept the idea of a throw-away society that buys and throws away things. When we heard about the challenge, we saw it as an opportunity to do something more for the environment."*

Eftychia, her husband and their two children are one of 63 families in Montrouge who have volunteered to take part in the challenge.



*During door-to-door operations, each eco-facilitator meets 80 residents every day. People extend a warm welcome to us. They are open to discussion, they listen to us, ask questions and express their doubts about this or that package. With the extension of sorting instructions, we explain to them that sorting has become easier."*

**Diane GIMONET,**  
team leader of 10 eco-facilitators,  
Verdicité consulting firm.



*With the support of Sycotm, the collection of food waste has gradually been implemented in the territory. Its success depends on educating the public but it is a solution that reflects our desire to find an effective way of resolving the problem of food waste."*

**Helena MUNUERA,**  
Food waste point of contact,  
EPT 4 - Paris Ouest La Défense.



In the markets, merchants are making efforts to collect food waste by adapting their professional practices.

# RECOVERING WASTE, A SHARED STORY

Whether it is food, plastic or furniture, waste can have a second life. This is the thrust of Sycotom's message on different occasions: when it develops composting courses, when it supports the innovative ideas of students as part of the Zero Waste Design competition or when it invites schoolchildren, high school students and the public to discover the behind the scenes of its facilities.

Every year, Sycotom opens the doors of its facilities to schoolchildren who come to discover its activities and understand the issues related to waste prevention and management.



*Visiting a centre like Isséane is highly instructive because it helps us to discover the backstage of an urban service essential to our daily life. The underground facility and the performance of the machines are impressive! The site, built on the banks of the Seine, is very well integrated."*

**Cécile,**  
Vanvéeenne.



*I've created a project to raise public awareness about ocean pollution by providing a mobile polyethylene waste collection and conversion service at the ports. Thanks to rotomolding (plastic processing technique, Editor's note), people go back with a new object from the waste they brought. It is positive, and not punitive, ecology."*

**Léna MOREAU,**  
student at Boule school,  
1st prize in the 2018 Zero Waste Design Competition.



*Individuals are interested in composting: they find it increasingly unnatural to have to throw away biowaste in the household waste bin."*

**Jean-Jacques FASQUEL,**  
master composter.



*In our association, we give a second life to discarded toys and a second chance to reintegrating employees. This creates strong bridges towards sustainable employment."*

**Claire TOURNEFIER-DROUAL,**  
founder and development manager  
of the association Rejoué.





# MODERNISATION AND INNOVATION TO PROMOTE RECOVERY

The challenge of sorting and recovering waste requires new R&D means to create new channels, but also to acquire more efficient facilities or to develop low carbon transport solutions. In all cases, Syctom is committed to supporting the ecological transition of its territory and building a sustainable city respectful of its environment and its inhabitants.



*Energy for CPCU's heat network is derived from an energy mix composed of more than 50% of local, renewable and recovered energies. 45% of these energies comes from of the energy recovered from household waste in Syctom's three units. The use of these energies, as an alternative to fossil fuels, helps to fight against climate change and improve air quality in Île-de-France. This illustrates how the CPCU designs and builds its network: making the most of the territory's characteristics and resources."*

**Karine LERIN ROBERT,**  
Dispatching manager at the CPCU.



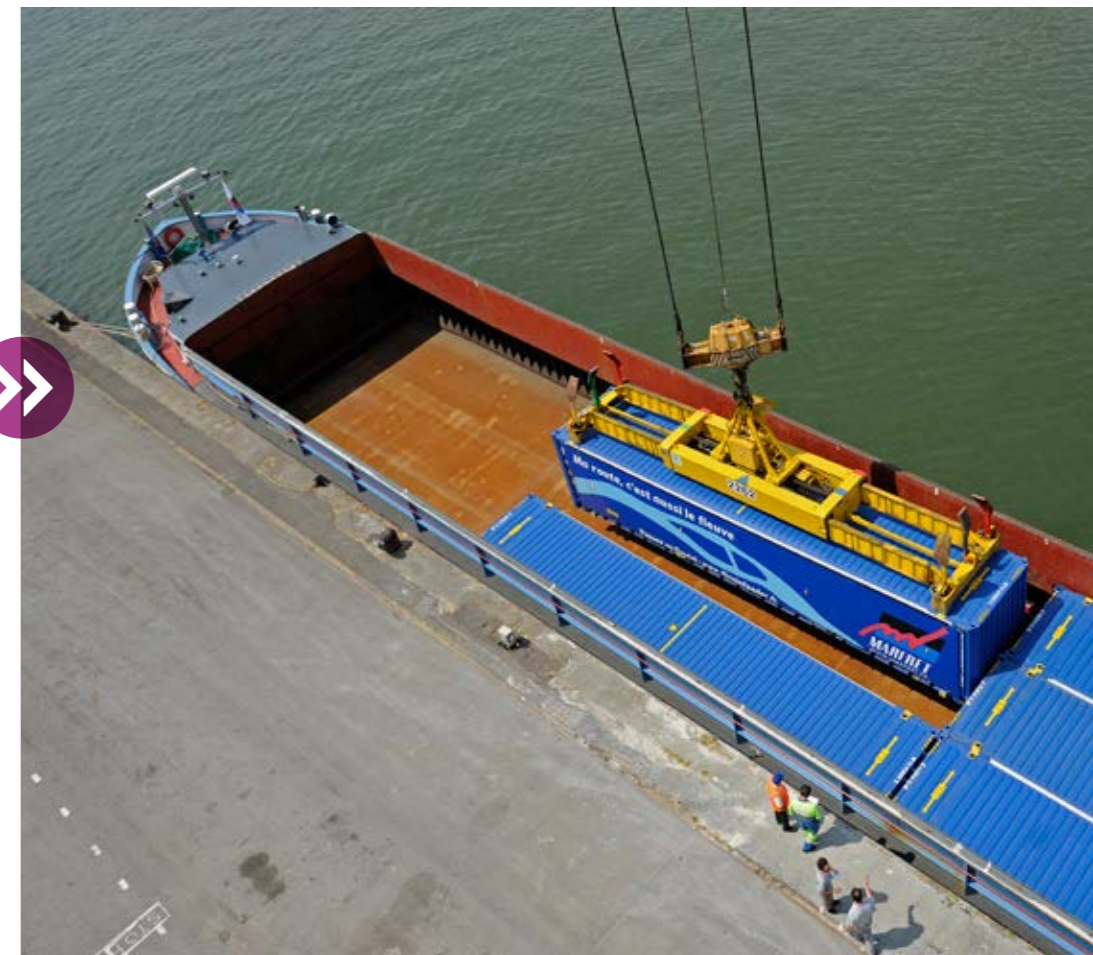
*Thanks to the new sorting processes, which are more automated and equipped with many optical sorting machines upstream of the sorting tables, the working conditions of the agents have improved. Entrusted with grading operations, the agents have tasks more focussed on quality control."*

**Romain PELISSOU,**  
recycling director, Syctom.



*The Seine is the lifeline that connects us to Paris and Syctom. So for us, it makes sense environmentally and logistically to use inland waterway transport: today, more than 80% of the paper supplied to our plant arrives by barge."*

**Arnaud DAUXERRE,**  
in charge of the purchase of recyclable materials and paper, company UPM Chapelle-Darblay.



The Cométhta project, developed with SIAAP, creates synergies between expertise and performance strategies to develop innovative solutions that meet the challenges of a sustainable city.



In the Docks eco-district in Saint-Ouen-sur-Seine, the modernisation of the L'Étoile Verte has been designed so that the centre interacts with its urban environment.

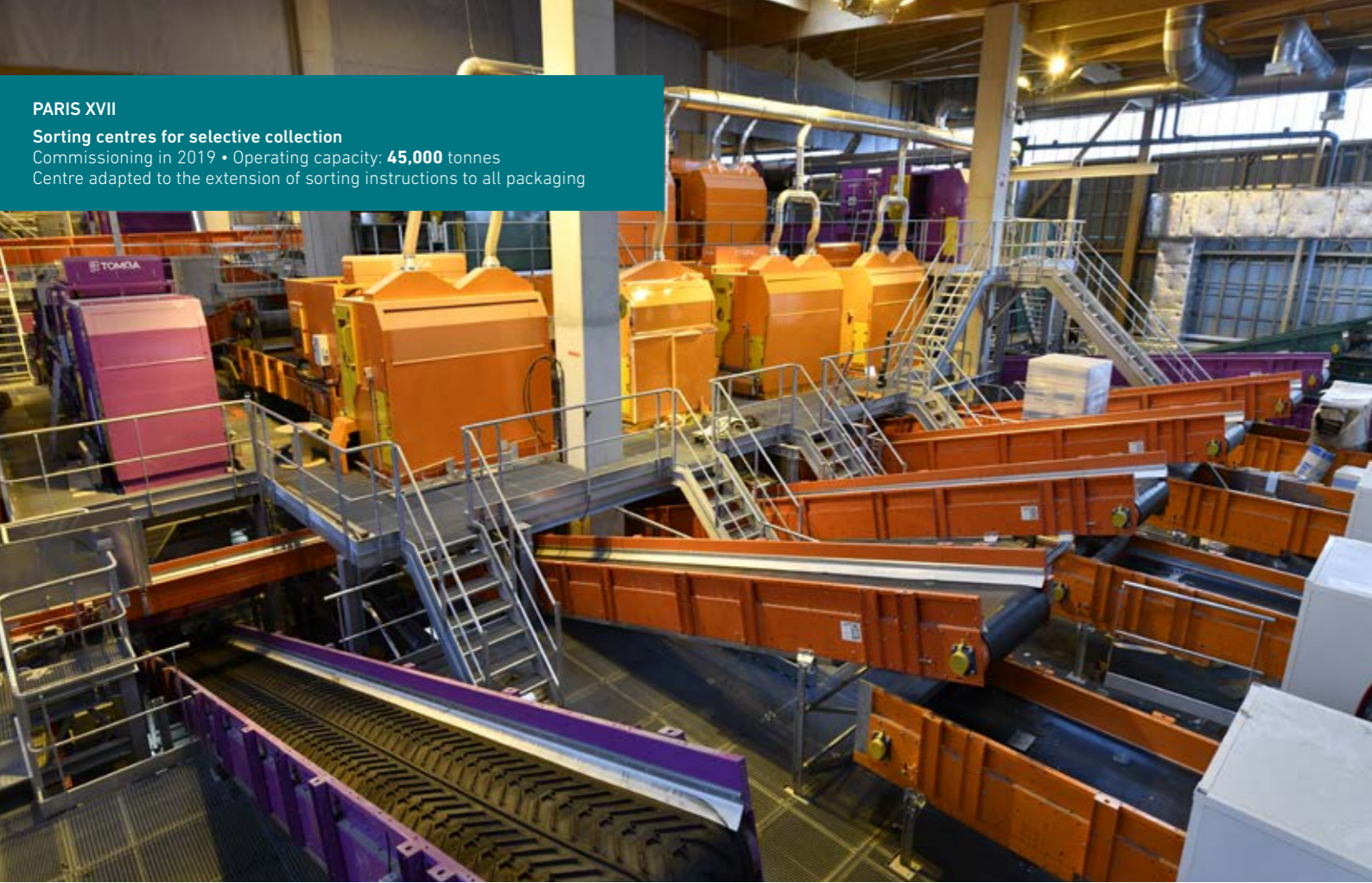
# EXEMPLARITY AND RESPONSIBILITY FOR TOMORROW

Strongly committed to the transformation of our society, Syctom is fully dedicated, through public service mission, to enhancing civic-mindedness and raising awareness, by cultivating exemplarity and transparency on a daily basis. Both in its territory and internationally, it intends to play a leading role to boost the ecological transition through a collaborative process based on innovation.

*“In the territory of Greater Paris, which accounts for 10% of the waste produced in France, it is essential to establish a collective process so that we are in a position to achieve the ambitious objectives set by the law\* in terms of waste reduction and recycling. In this large-scale enterprise, Syctom has a special role of a coordinator, to facilitate dialogue between the stakeholders concerned and to build a concerted vision with them, in the medium and long term, concerning the prevention, collection and treatment of waste in the territory.”*

Michel CADOT,  
Prefect of the Île-de-France region, prefect of Paris

\* Objectives set by the Energy Transition for Green Growth Act, reiterated in the “Circular economy road map” and reinforced in the European Circular Economy Package.



**PARIS XVII**  
 Sorting centres for selective collection  
 Commissioning in 2019 • Operating capacity: **45,000** tonnes  
 Centre adapted to the extension of sorting instructions to all packaging

## AN EXEMPLARY PLAYER

As a responsible public service player, Syctom strives to optimise and modernise its operation to tackle new environmental and economic challenges, in view of ensuring the transparency and clarity of its action. Its commitment is evident as much in its daily mission, alongside players engaged in waste treatment, as in the attention it pays to the quality of work life of its agents.

**syctom** **NEW VISUAL IDENTITY**  
 In order to harmonise the representation of its identity in its communications and facilitate its identification by the general public, Syctom acquired a new visual identity: a redesigned logo and a reference colour. All communication materials were adapted to reflect this new identity.

### A CSR APPROACH IN FULL SWING

The corporate social responsibility policy, initiated by Syctom at the end of 2015, has several objectives: to adapt to an ever-changing regulatory, economic, societal and territorial context, to better plan for the future, but also to explore new, increasingly more responsible and exemplary practices, especially in terms of dialogue with the stakeholders. If, in 2017, Syctom created a CSR committee and officially launched its approach within the organisation, it deployed eight major operational projects in 2018 and initiated the first concrete actions. To increase its impact and clarity, Syctom has taken a new step forward by structuring its CSR strategy around four major themes. These guidelines contribute to 13 of the 17 Sustainable Development Goals (SDGs) identified by the United Nations as part of the 2030 Agenda. Adopted by the Heads of State and Government on 25 September 2015, this programme builds on the SDGs to meet the challenges of globalisation by 2030, based on the three components – environmental, social and economic – of sustainable development. Syctom chose to use the SDGs as management tools in an effort to adopt universally shared indicators.

### Preventing risks, constantly

Considered a top priority, safety was the first project launched by the CSR strategy. Beyond the regulatory obligations inherent in its activity, Syctom has from the outset pursued a policy of continuous improvement of its equipment, in order to guarantee the reliability of the sites, the protection of people and the preservation of the environment. With the CSR

approach, Syctom intends to consolidate its practice, particularly in terms of addressing and managing risks (see fire risk, page 18), and tackling the issue of safety in a broader sense, by developing an internal culture on this topic. Backed by the Institute for an industrial safety culture (ICSI), the syndicate has set up a diagnostics, so as to observe the practices in-house and assess perceptions, from managers to operators. The results of this survey, presented in early 2019, will pave the way for the development of a strategy along with the agents, together with an action programme.

### MODERNISED MANAGEMENT, FOR GREATER TRANSPARENCY

Syctom's cross-cutting continuous improvement approach is also reflected in a rigorous financial policy. While controlling treatment costs, the syndicate is investing for the future through a multi-year investment programme (PPI). To cope with this high level of commitment, the syndicate has chosen to adopt a multi-year management with the AP/CP (Programme Authorisations/Payment Credits) procedure, a tool that promotes both good budgetary information and a flexible management. The reliability of its strategy was confirmed in November 2018 by the credit rating firm Standard & Poor's, which awarded it an A+ rating. In its commitment to transparency, Syctom has started a financial rating process, a first in France for a waste treatment syndicate. The signature of a partnership agreement with the Direction régionale financière d'Île-de-France (DRFIP) in June complemented this move towards a transparent and optimised management. In order to simplify public procurement procedures, Syctom went further in the dematerialisation of procedures. Finally, pressing on in its desire for transparency, it created an Open Data area on its website in 2018.

### Investing in a responsible and sustainable way

Syctom's ambitious investment programme entails a significant need for financing, which the syndicate mainly meets by borrowing in 2019. In this process, it intends to open up to the international financial community. In September 2018, it participated in a day of discussions between French public bodies and German investors in Frankfurt. This was an opportunity to highlight its financial strength, and present its major projects and its financing needs. In line with its global strategy, the syndicate's borrowing plan now incorporates a sustainable dimension: priority for green financing for its projects contributing to pollution prevention and climate change mitigation, in connection with the achievement of sustainable development objectives. In early 2019, Syctom obtained its first green loan to finance the sorting centre in Paris XVII.

### Contributing to the professional development of its agents

Syctom pays particular attention to the well-being of its agents and their working conditions. After extending the application of the RIFSEEP (Compensation scheme taking into account functions, constraints, expertise and professional commitment) in 2018 to new functions, it launched an experimental phase of teleworking for volunteer agents, which could eventually cover all agents.

Keen to engage the staff in an exemplary approach, Syctom launched a call for ideas in March 2018 on the quality of life at work. The proposals made were shortlisted based on feasibility criteria and then voted upon. Five concrete actions were selected. They include the revegetation of window sills and the organisation of occasional collections (toys, office supplies, etc.) to promote the circular economy.

### THE FOUR PILLARS OF SYCTOM'S CSR STRATEGY AND THE SDGS TO WHICH THEY CONTRIBUTE

<p><b>4</b> ÉDUCATION DE QUALITÉ</p> <p><b>7</b> ÉNERGIE PROPRE ET DURABLE</p> <p><b>11</b> VILLES ET COMMUNAUTÉS DURABLES</p> <p><b>12</b> CONSOMMATION ET PRODUCTION RESPONSABLES</p> <p><b>17</b> PARTENARIATS POUR LA RÉALISATION DES OBJECTIFS</p> <p><b>Play an active role in the territory to serve the interest of the general public</b></p> <ul style="list-style-type: none"> <li>Strengthen dialogue with the stakeholders</li> <li>Create a joint project with the local authorities</li> <li>Control the perceived nuisances and publish the quality of our atmospheric emissions</li> <li>Supply energy to the territory</li> <li>Create awareness among the citizens and prevent the production of waste</li> </ul>	<p><b>8</b> TRAVAIL DÉCENT ET ÉCONOMIQUE</p> <p><b>12</b> CONSOMMATION ET PRODUCTION RESPONSABLES</p> <p><b>15</b> MER TERRESTRE</p> <p><b>16</b> PAIX, JUSTICE ET INSTITUTIONS ÉQUITABLES</p> <p><b>17</b> PARTENARIATS POUR LA RÉALISATION DES OBJECTIFS</p> <p><b>Promote a governance that fosters innovation and ethics</b></p> <ul style="list-style-type: none"> <li>Develop a culture of innovation</li> <li>Share Syctom's expertise and data</li> <li>Rely on responsible financing</li> <li>Establish an ethical system</li> <li>Deploy a responsible purchasing process</li> <li>Develop a culture of safety and security</li> </ul>
<p><b>9</b> INDUSTRIE, INNOVATION ET INFRASTRUCTURE</p> <p><b>11</b> VILLES ET COMMUNAUTÉS DURABLES</p> <p><b>12</b> CONSOMMATION ET PRODUCTION RESPONSABLES</p> <p><b>Strive towards ecological transition</b></p> <ul style="list-style-type: none"> <li>Co-build sorting objectives with the local authorities</li> <li>Promote the increase of biowaste collected and treated</li> <li>Work towards zero landfilling</li> <li>Reduce the carbon footprint</li> <li>Monitor water consumption</li> <li>Contribute to the development of the circular economy</li> </ul>	<p><b>3</b> BONNE SANTÉ ET BIEN-ÊTRE</p> <p><b>8</b> TRAVAIL DÉCENT ET ÉCONOMIQUE</p> <p><b>Involve agents and contribute to their professional development</b></p> <ul style="list-style-type: none"> <li>Continue the implementation of teleworking</li> <li>Promote quality of life at work</li> <li>Promote cohesion and cross-functionality</li> <li>Develop eco-gestures</li> </ul>

PARIS XV

Sorting centres for selective collection

Catchment area: **550,000** inhabitants • **15,394** tonnes received in 2018 • Operating capacity: **16,000** tonnes (capacity increased in the future to 32,000 tonnes) • Adaptation to the extension of sorting instructions to all packaging in progress, for commissioning in 2019 (capacity increased to 32,000 tonnes) • Operator: IHOL



## A PLAYER THAT CARES FOR ITS ENVIRONMENT

Environmental responsibility is an essential commitment, even more so in dense urban areas. This is why Syctom is strengthening its financial and methodological resources, which it is mobilising to ensure the proper integration of its facilities and limit the impact of its activity on the environment.

### PRESERVING THE IMMEDIATE ENVIRONMENT OF THE SITES

Syctom has a proactive policy of controlling the atmospheric emissions of its centres. The quality of the emissions is constantly measured thanks to analysers placed in the stacks. In addition, the operators carry out four compulsory inspections every year at Isséane, apart from the two inspections carried out by Syctom. At the same time, campaigns to measure atmospheric deposition, via precipitation samplers, are carried out annually at the Étoile Verte in Saint-Ouen-sur-Seine, Ivry/Paris XIII and Isséane in Issy-les-Moulineaux, at about ten monitoring points per site, for two months. Finally, in addition to these inspections, Syctom also uses biomonitoring: studying mosses and lichens growing in the surrounding area makes it possible to evaluate the level of pollutants accumulated during their growth.

### Capturing unpleasant odours

Olfactory nuisance near the facilities is another issue that deserves attention. At the L'Étoile Verte centre in Saint-Ouen-sur-Seine, extensive work was undertaken during the summer of 2018 to limit olfactory nuisances around the site. Specifically, the air circulation system was improved and the closing of certain access doors was programmed to control and minimise odour emissions. These developments

complement the actions already initiated since 2015, such as the spraying of a neutralising product, the complete cleaning of the pit, olfactory measurements by eco-facilitators, and the setting up of a close dialogue with the association Mon Voisin des Docks and the local residents. To go even further, Syctom decided at the end of November to set up a continuous measurement system on the site. Once correlated with the observations of the local residents, the results obtained will be used to exhaustively identify all the olfactory sources and identify odour emission points, two essential elements for taking the process further.

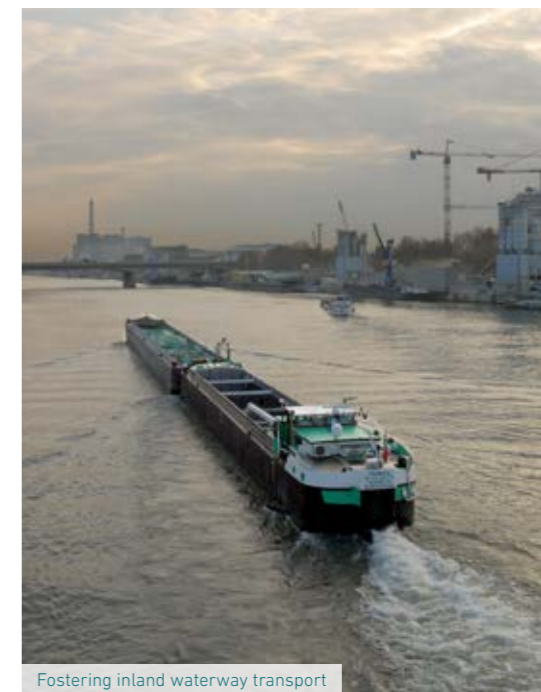
### PURSUING A LOW CARBON STRATEGY

In line with its CSR policy, Syctom demonstrates its commitment to developing innovative and eco-responsible practices on a daily basis as part of its public service mission. Reducing greenhouse gas (GHG) emissions is one of its priorities. Its investment in this area is yielding concrete results, since the annual reports show that the avoided emissions, linked to the energy production of the ERUs and the recovery of the secondary raw materials, largely compensate the direct emissions caused by its activity.

To optimise its efforts to limit GHGs, Syctom wants to develop access to reliable and accurate information. It is with this in mind that it decided to join CITEPA (Interprofessional Technical Centre for Studies on Air Pollution). This independent organisation develops, verifies and distributes information on GHG emissions and air pollutants in an unbiased manner. Certified ISO 9001, CITEPA has carried out the annual national inventory of GHG emissions in France for the last twenty years. By becoming a member, Syctom benefits from the expertise of an interprofessional network and has access to scientific research on air pollution.

### Alternatives to road transport

To further improve its Bilan Carbone® (carbon balance), Syctom intends to strengthen its use of alternative modes of transport. In this perspective, it strove last year to support innovation in this area by signing two agreements with its partners. The first is the ASTRID project (Axe Seine Transferts Régionaux Innovants des Déchets): this involves studying the feasibility of a logistics plan from Romainville to the



Fostering inland waterway transport

port of Gennevilliers via the Ourcq canal, to bulk up the flows before loading onto large boats navigating the Seine from Paris to Normandy. With this partnership, Syctom endeavours to develop a network approach around a multi-stakeholder logistics chain.

With the same goal of optimising transport, the second agreement concerns the Green Deliriver project, signed with GRDF. A shuttle will remove urban waste from Paris to the outskirts via the Seine to recycling centres under contract with Syctom; in the opposite direction, it will transport goods to the heart of the capital. It will include an onboard and connected warehouse, to optimise the logistics and the management of goods.

Green Deliriver will be equipped with a hybrid gas-electric propulsion system to reduce pollutant emissions. By bringing its expertise to this project, Syctom contributes to the development of an innovative solution with a clean propulsion system, integrating the flows and constraints of its activity.

In 2018,  
**245,300**  
tonnes of materials  
transported  
by water

### INCREASED VIGILANCE ABOUT AIR QUALITY IN THE CENTRES

To improve the monitoring of air quality in workplaces, including sorting booths, Syctom wanted to set up new missions to monitor the performance of air treatment plants. Measurement campaigns will therefore complement the regulatory provisions under the French Labour Code. Taking the form of assessments or spot checks, they aim to characterise occupational exposure to dust and bio-aerosols.



**ISSÉANE / ISSY-LES-MOULINEAUX**  
 Energy recovery unit • Catchment area: **1.45** million inhabitants  
**504,025** tonnes incinerated in 2018 • Authorised capacity: **510,000** tonnes  
 Operator: TSI

**Sorting centres for selective collection**  
 Catchment area: **700,000** inhabitants • **24,298** tonnes received in 2018  
 Operating capacity: **23,000** tonnes • Operator: TSI

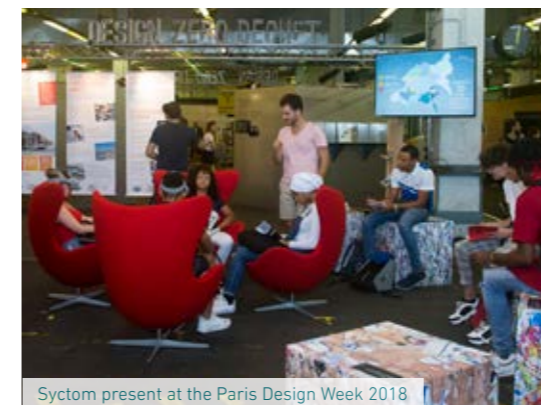
## AN OUTWARD-LOOKING PLAYER

In 2018, Syctom supported initiatives in its territory and beyond to build sustainable and responsible solutions. As an expert in innovative waste management and a promoter of circular economy, it is broadening its global reach, both through its policy of cooperation, and through its presence and its stance in international bodies and events.

### ENCOURAGING INNOVATIVE AND RESPONSIBLE DESIGNS

Raising the awareness of tomorrow's designers to waste prevention is a major change driver for Syctom. A telling symbol of this approach is the Zero Waste Design (DZD) competition, which since 2011 has been inviting students to think about eco-design by developing innovative and sustainable goods or services. It has expanded considerably since then, at different levels. Firstly, in terms of geographical scope, since it was opened up for the first time to students in higher education institutions in mainland France, thus mobilising 278 students against 97 in 2017. The competition has also gained visibility, since Syctom wanted to promote it with well-known ambassadors: after the 5•5 collective studio, the pioneer of upcycling and the patron in 2018, Matali Crasset, the international reference in the world of design, is the patron for 2019. This new edition was launched at the Paris Design Week on 12 September 2018, as a side event to the "Social Design" exhibition dedicated to responsible design. This year's competition focuses on waste prevention and waste management in the new extended producer responsibility (EPR) channels, which include toys, sports and DIY products.

**+140%**  
 rate of participation in the DZD competition between 2017 and 2018



Syctom present at the Paris Design Week 2018

### From idea to reality

With the aim of reaching out to a wider audience, Zero Waste Design teamed up for the first time with partners in connection with the chosen theme, such as the association Réjoué and the Leroy Merlin and Décathlon store chains. These partnerships could also eventually facilitate the development of the designs proposed by the candidates, which is Syctom's earnest desire. Thanks to the DZD competition, nine projects have already been supported or are in the process of being implemented, like Bisquare. Winner of the Syctom 2018 award, this eco-designed picnic blanket project promoting waste sorting developed its first prototype in June with the support of a designer.

**137**  
 projects received and analysed as part of the DZD competition

In view of encouraging eco-design, Syctom is involved in a partnership with FAMAÉ, a foundation that has launched a competition to finance solutions to reduce or recycle household waste.

### Supporting innovation in urban areas

Eager to foster the emergence of innovative approaches in a dynamic of industrial and territorial ecology, Syctom also supported the "Quartiers d'innovation urbaine", a call for experimentation projects by Paris&Co's Urban Lab. Launched in June 2018, this initiative, which aims to test new solutions in real conditions to validate their effectiveness and feasibility, will first of all cover the Paris-Rive Gauche innovation district, located in the 13th arrondissement of Paris. Companies, associations, Grandes Ecoles and universities were able to submit concrete proposals in July aimed at transforming the city and address urban issues such as mobility, social ties, revegetation or waste management. The applications were examined by a jury composed

of Urban Lab, the City of Paris and twelve urban partners, including Syctom. On 10 October 2018, the fifteen winners were announced and prototypes of the projects were installed at the end of the year in the neighbourhood, to be tested there.

### DEVELOPING AN INFLUENCE STRATEGY

Syctom deploys a strategy of influence in France and abroad with the aim of advancing the reflection on the issues of household waste treatment, by sensitising stakeholders and decision-makers to the stakes of circular economy.

At the national level, Syctom thus participated in the development of the government roadmap for implementing the United Nations Sustainable Development Goals (SDGs), emphasising the need to incorporate the issue of waste (see pages 32-33).

In September 2018, Syctom also contributed its expertise to the 11th Convergences World Forum, through two workshops: one on the recycling of waste electrical and electronic equipment (WEEE) in

Africa; the other examining innovation for inclusive and sustainable cities. Syctom's commitment through the 2<sup>nd</sup> national conference on household waste held on 13 December 2018 also reflects its desire to give impetus to the circular economy and to examine the French model of waste management to further improve its efficiency. This edition, focused on building a sustainable and profitable model, was an opportunity to

convey strong messages such as the need to increase the visibility of the driving territories in this area and to define a coherent national strategy, involving all the players to achieve the transformation.



Recycling of WEEE in Africa



International solidarity project in Togo

### Expanding its network of partners

To fuel forward-looking thinking on these topics, Syctom also strives to build closer ties with players engaged in an open and collaborative approach. It therefore chose to join the National Institute for Circular Economy (INEC), a multi-stakeholder organisation with more than 200 members, including public and private organisations: companies, federations, local authorities, institutions, associations, NGOs and universities. By participating in its numerous bodies, the syndicate contributes to the debate, particularly on eco-design and the work to be done for the upcoming transposition of the European directives from the "circular economy" package into French law.

### Making a stand, beyond its borders

The international dimension of waste management issues encourages Syctom to develop its influence beyond France, particularly in Brussels, where it strives to make its voice heard as the leading European public operator. In international forums (COP, exhibitions, forums, etc.), it enriches the discussions and advocates its positions to urge the stakeholders to participate in the ecological transition. In this endeavour, Syctom became a member of the French Water Partnership (FWP) in 2018: it thus contributes to its work and thoughts on

circular economy, at the crossroads of issues related to water, sanitation and waste management. As such, the syndicate took part in at the World Water Forum in Brasilia March 2018. It was able to share its expertise in the treatment of solid waste in a dense urban environment and, alongside SIAAP, present its innovative co-methanisation project (see page 21). This partnership thus enabled it to contribute to high-level forums, showcasing its role as an expert, both abroad and in France.

### SHARING ITS EXPERTISE



Since 2015, Syctom has been involved in the "1% waste" system, which enables public stakeholders to carry out waste management improvement projects in developing countries. In an effort to achieve the United Nations Sustainable Development Goals (SDGs), Syctom's Solidarity Programme funded 31 projects in the Caribbean, Africa and South-East Asia between 2015 and 2018, and mobilised nearly €2.8 million for pre-collection, collection, treatment and awareness raising. After three

years of experience, Syctom wanted to structure its approach to encourage the emergence of more projects and strengthen its support for local initiatives. Launched in March 2019, the call for projects "Syctom Waste Solidarity" aims to formalise and set up a framework for its intervention, with transparent selection criteria and a precise timetable. The selection of the actions supported, as well as the awarding of grants, will be made at the end of the year.

### From Kazakhstan to Manila

In parallel with this programme, Syctom continues to be involved in technical cooperation projects with foreign local authorities. This is evidenced by the partnership initiated, since the Astana 2017 exhibition, between Syctom and the public waste treatment authority of the city, renamed Nur-Sultan since March 2019. For six months, Syctom assisted its Kazakh counterpart in finding relevant technological solutions, in view of its environmental and legislative constraints. In June 2018, following Syctom's proposal of six scenarios, the municipality opted for quickly operational solutions. Syctom also decided to support a large-scale project: the rehabilitation of the Pasig River in Manila, as part of the Megacities Alliance for Water and Climate initiative. Its action, focused on the management of solid waste in the river, is carried out in close collaboration with SIAAP, which is leading a project for the treatment of wastewater using plants.

### Cultivating the sharing of practices and working in synergy

This collaborative process is also reflected in the visits of foreign delegations to its facilities. In Isséane, Syctom received the Mayor of Mexico City, Claudia Sheinbaum, on October 11, 2018. Committed to environmental issues, she was able to discover the operation of a waste treatment centre fully able to meet the challenges of her city. In July, Josh Frydenberg, Australian Minister for Environment and Energy, visited the site and interacted with Syctom's elected officials and agents.

Syctom also intends to strengthen its position as an international expert in waste management by cultivating the sharing and exchange of experiences with inspiring players on a global scale. In line with the benchmark made in 2017 on biowaste collection policies in four metropolises abroad, Syctom organised meetings with its counterpart structures in Milan, Geneva and San Francisco. This sharing of experience allowed it to make known its innovative solutions abroad, but also to identify new avenues for reflection, for example on the development of biodiversity on its sites.



Josh Frydenberg, Minister for the Environment and Energy of Australia, visiting Isséane.

Lastly, Syctom's driving role in promoting ecological transition is evident from its participation in major international events, such as the World Water Forum in Brasilia (Brazil) or COP24 in Katowice (Poland), during which the co-methanisation project with the SIAAP was presented. In the same perspective, the Sustainable City conference, organised in Vietnam, to which Syctom was invited, was an opportunity to demonstrate its ability to work in synergy with other institutions.

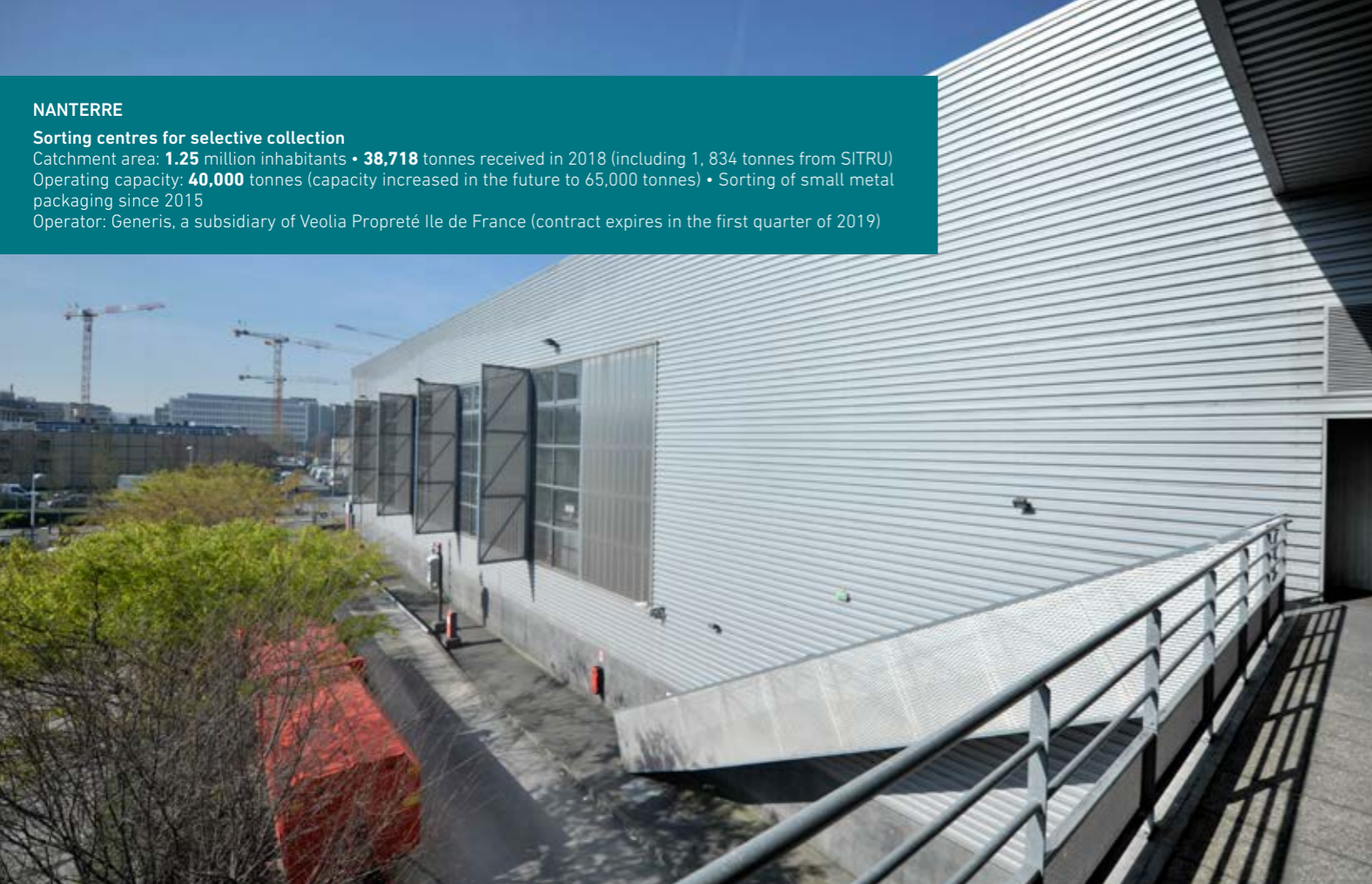


Syctom's President accompanied by a delegation of elected officials visiting San Francisco

NANTERRE

Sorting centres for selective collection

Catchment area: **1.25** million inhabitants • **38,718** tonnes received in 2018 (including 1,834 tonnes from SITRU)  
 Operating capacity: **40,000** tonnes (capacity increased in the future to 65,000 tonnes) • Sorting of small metal packaging since 2015  
 Operator: Generis, a subsidiary of Veolia Propreté Ile de France (contract expires in the first quarter of 2019)



## A PLAYER COMMITTED TO KNOWLEDGE SHARING

Syctom places the fight against climate change, social responsibility and innovation at the heart of a strategy that it designs collaboratively. This is reflected in its participation in ambitious projects and in its research support policy.

### RAISING AWARENESS, SHARING AND UNDERSTANDING

In this synergy-building perspective, Syctom is involved in the "Water, waste and climate change" project led by the ASTEE (Scientific and Technical Association for Water and the Environment). This project seeks to create a deliverable for local environmental public services and their partners. This support, developed under the joint leadership of Syctom and SIAAP, prioritises the coordination of water-sanitation-waste policies. It will shed light on the obligations imposed on the territories and will also encourage local authorities to become aware of the issues of climate change and its impacts at the local level.

### Actively support research

In March 2018, Syctom embarked on a scientific patronage with the Fondation Autisme, which wants to conduct a study on the correlation between exposure to heavy metals (lead, mercury, nickel) and autistic disorders. If scientific studies show that environmental factors can be the cause in many cases, the methods of analysing the presence of these metals in patients are not advanced. To fill this gap, the Fondation Autisme decided to launch a transdisciplinary study, conducted over three years, which will strive to propose an indisputable methodology, and then make reliable measurements of exposure to heavy metals. Convinced of the contribution that this project can make, the Syndicate Bureau voted unanimously to grant a subsidy of €110,000 euros in its favour.

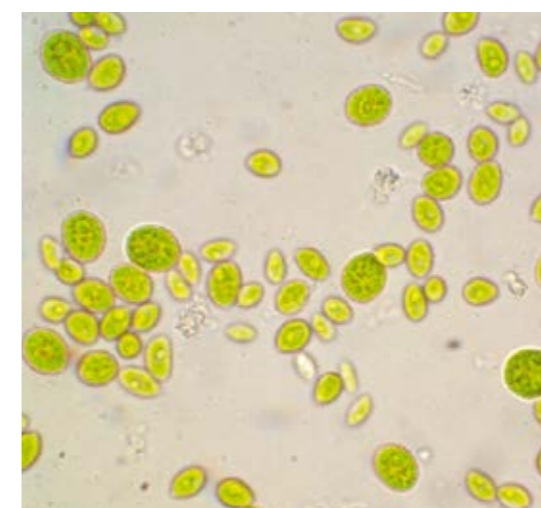
### INNOVATING AT ALL STAGES OF TREATMENT

Syctom invested in various innovative and cross-cutting projects, which concern all stages of its activity.

#### Limiting GHG emissions

In order to control greenhouse gas (GHG) emissions caused by the treatment of household waste, Syctom took the initiative to produce accurate carbon assessments annually. To refine them and make them more reliable, it participated in the UIOM-C14 programme of Merlin/Environnement SA in 2018: this consortium proposes a system to quantify the CO<sub>2</sub> impact of incineration units, but also to measure the energy produced and recovered by the treatment centres. This innovative project, conducted in partnership with ADEME, focussed on the ERU in Isséane.

Apart from measuring GHGs, Syctom has also been working on the reuse of CO<sub>2</sub> since 2016, through an ambitious R&D programme aimed at transforming the carbon dioxide present in flue gases into biomaterials. This project, which uses micro-organisms, is in the exploratory phase. After twelve months of research, a rigorous selection of micro-algae and cyanobacteria was carried out, after tests in real conditions. The international R&D consortium is currently working on the design of the bioreactor for the production of microorganisms.



#### TOMORROW, SMART WASTE?

A conference initiated by Syctom around artificial intelligence was held at the Grand Palais on 3 July 2018. Artificial intelligence, already present in many areas, has not yet fully entered the field of waste treatment. The syndicate therefore wanted to examine the topic and encourage elected officials, industries and institutions to take charge of it. With the help of its partners, nearly 200 people attended the speech by the philosopher Raphael Enthoven and discover the "Artistes & Robots" exhibition introduced by Miguel Chevalier, a digital artist and designer of the future lighting installation of the Étoile Verte in Saint-Ouen-sur-Seine.

#### Research on bottom ash

Syctom is also actively involved at the end of the chain, in the quest for solutions for the recovery of products from waste treatment. In this respect, reusing bottom ash is essential. In 2018, Syctom signed an R&D agreement with four partners (Neo-Eco, NSAVALOR, ARMINES and Semardel) with the objective of finding new recovery solutions for these solid residues of incineration. Convinced of the strong potential that bottom ash holds, Syctom and its partners wanted to set up a four-year research programme. The study aims to identify new recovery market opportunities. Encouraging its recycling means limiting the use of resources, energy and raw materials, and reducing costs through innovative management.

# 2018

TECHNICAL &  
FINANCIAL REPORT

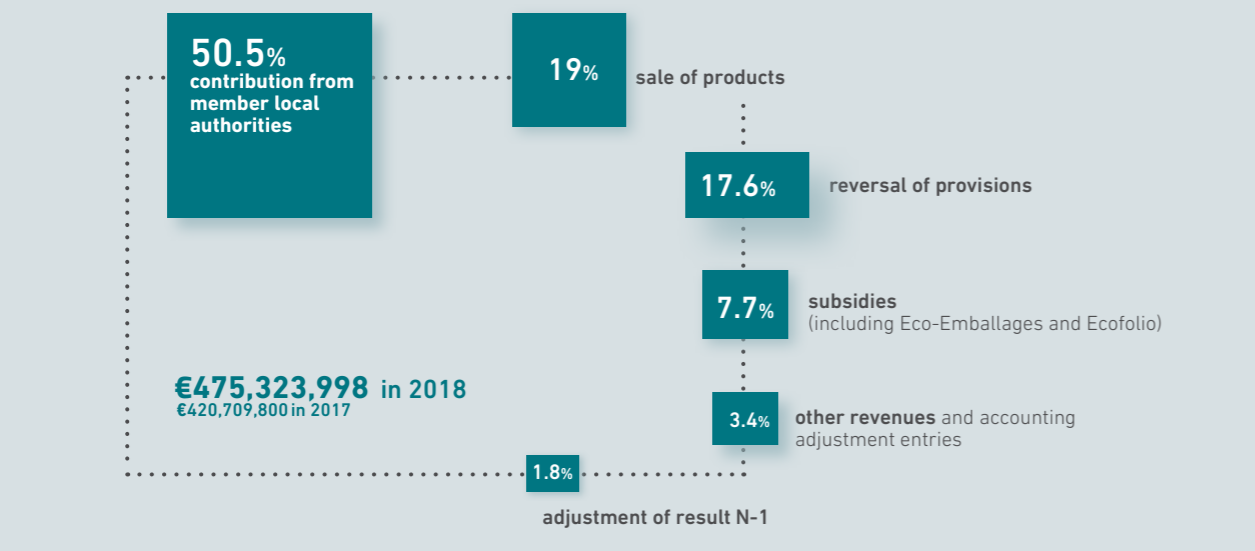
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# OPERATIONS

## Revenues 2018

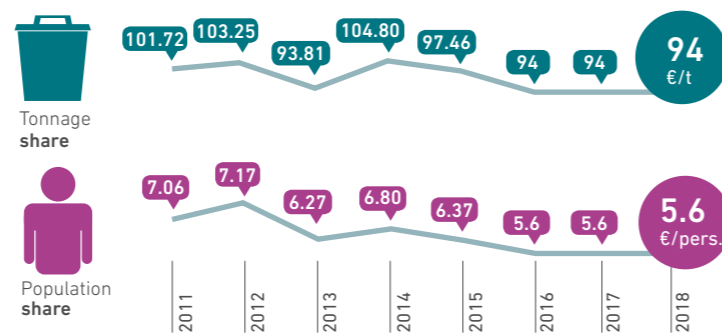


### A FEE STRUCTURE UNCHANGED

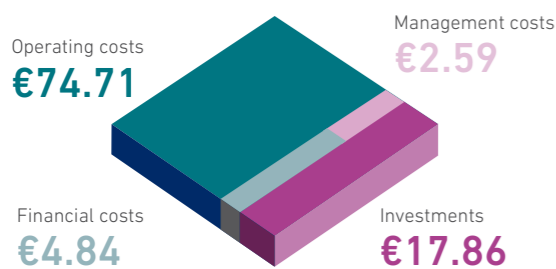
In 2018, the fees collected for household waste and bulky objects and the population share remained unchanged with respect to the pricing established by Syctom in 2016 and continued in 2017 (**94€/t** and **5.6€/inhabitant**). The fees and grants paid for selective collection (**5 to 30€/t for selective collection – free for tonnages higher than those recorded in 2015**) and biowaste (**5€/t for food waste**) were also maintained, in order to boost the growth of sorting performance and the collection of food waste.

### 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.



### USE OF THE FEES for €100



### FEES AND GRANTS PAID REVENUE STRUCTURE

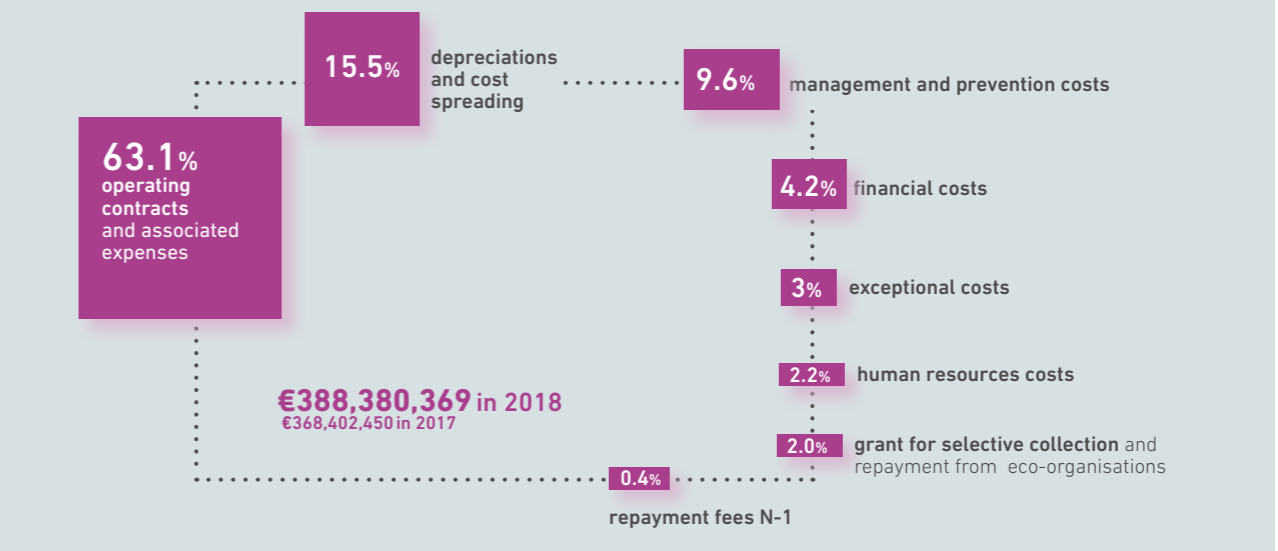
The income from fees stood at **€239.8 million** in 2018 and the grants paid to the members amounted to **€7.9 million** (+11.5% compared to 2017). Also, on a constant scope basis, fees grew by almost **€3 million** due on the one hand to the integration of Noisy-le-Grand on 1st July 2018, and on the other hand to the increase in contributions of bulky objects, household waste and selective collection compared to 2017. In 2018, the fees charged from Syctom's members accounted for **50.5%** of its operating revenues, followed by the sale of products (**19%**) and grants from eco-organisations (**7.7%**).

### SALE OF PRODUCTS AND GRANTS FROM ECO-ORGANISATIONS

The sale of products corresponds to energy recovery (steam and electricity) and materials recovery (products from the sorting of selective collection, collection of bulky objects and the incineration of household waste). Energy recovery increased in 2018. Steam revenues rose by nearly **€6 million** (**€62.8 million** compared to **€57.1 million** in 2017) due to the greater availability of Syctom centres.

The sale of electricity grew by **€0.2 million** (**€5.9 million** compared to **€5.7 million** in 2017) due to the proper functioning of the turbine-generator units in the centres. Materials recovery declined by **€2.5 million** (**€20 million** compared to **€22.5 million** in 2017) particularly because of low volume effect and greater price effect. The grants paid by eco-organisations (Citeo, Eco-Mobilier and Ocad3E) and subsidies decreased by **€2.2 million** (**€36.6 million** compared to **€38.8 million** in 2017), due to the new scale F.

## Expenditure 2018



### OPERATING COSTS ON THE RISE

**€245.2M**

In 2018, operating contracts account for nearly 67% of operating costs (excluding exceptional expenses), i.e. approximately €251 million (€208 million in 2017). The primary reason for this lies in the amendment to the Etoile Verte Saint-Ouen-sur-Seine contract, which provides for de-netting. As a result, operating costs increased by €27.2 million. Besides, costs continue their upward trend:

- incineration treatment expenses (+€4.3M), the increase of which is mainly due to the tonnages incinerated at Isséane and external centres to compensate for the drop in capacity of the Étoile Verte (under construction);
- landfilling costs (+€4.8M), following an increase in tonnages to be landfilled due to a lower capacity for incineration in the Ivry/Paris XIII and Étoile Verte centres;
- expenses for major maintenance and repairs - (GER) (+€4.2M), on all sites in accordance with the contractual application of the GER programme;
- sorting expenses (+€2.2M), the increase of which is due to the increase in tonnages, the works in Paris XV and the increase in operating costs owing to the use of external sorting centres;
- transfer expenses (+€1M), due to the increased use of backup contracts for treating household waste by incineration and a general redistribution of tonnages between the SC treatment sites due to the works at Paris XV;
- biowaste expenses doubled between 2017 and 2018, following the implementation of the food waste collection and treatment system for large producers in some experimental territories that are Syctom's members;
- the treatment of bottom ash dropped slightly (-€0.5 million) due to the start of new contracts for bottom ash at Ivry/Paris XIII and the Étoile Verte.

### INNOVATIVE AND COMPLEMENTARY ACTIONS

**€6.6M**

**The up-scaling of the ambitious programme for waste prevention and the development of biowaste (€5.7 million).**  
The year 2018 was marked by a continuous increase in the missions undertaken by eco-facilitators to reinforce the actions carried out to promote sorting and prevention. The eco-facilitators' teams carried out door-to-door awareness campaigns among the residents to reinforce the habit of sorting, in connection with the new sorting instructions extended to all packaging and the sorting at source of biowaste, implemented in the territories. The eco-facilitators also worked on the field to promote the practice of both collective and individual composting and to support the eco-design approach with the Zero Waste Design competition which is now open nationwide.

**Pursuing the international solidarity programme in the field of waste**  
15 agreements were approved in 2018 by the Syctom Syndicate Bureau (€0.9 million) to support international solidarity projects in view of sharing know-how and expertise. This programme is implemented within the framework of "1% solidarity" scheme established by the French Law of 7 July 2014.

### HUMAN RESOURCES COSTS

**€8.7M**

With a workforce of 125 employees as of 31 December 2018, payroll represented less than 3% of Syctom's operating expenses.

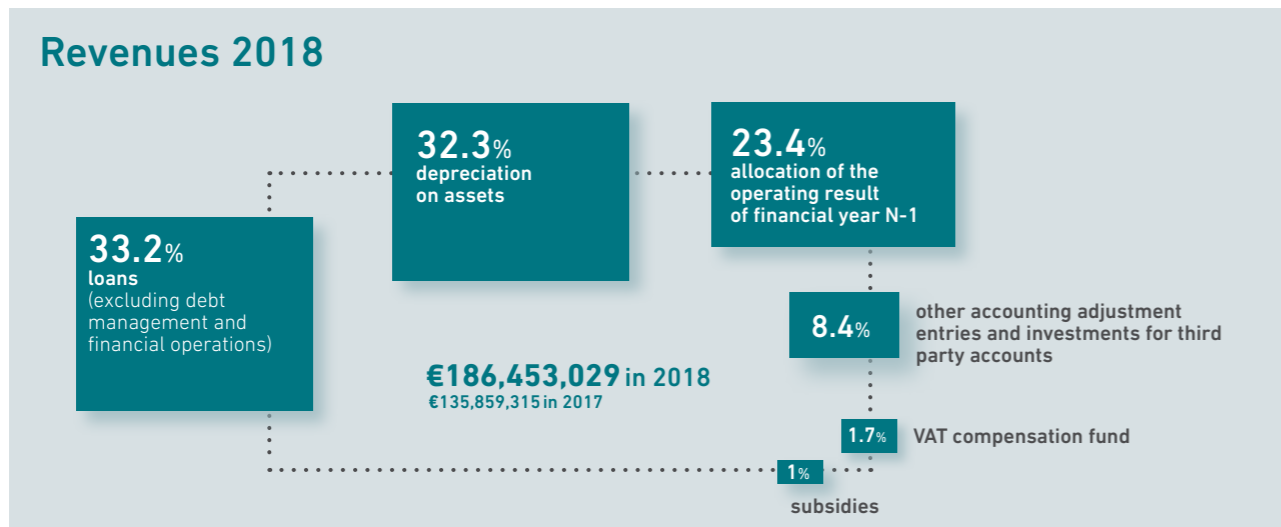
### DEPRECIATIONS AND SELF-FINANCING

**€60.2M**

Depreciation amounted to €60.2 million in 2018. It showed a slight increase compared to 2017 (€59.1 million). The level of depreciation (15.5% of operating expenditure in 2018) means that the investment sector is guaranteed self-financing capacities, which is important to limit Syctom's future debts.

# INVESTMENT

## Revenues 2018



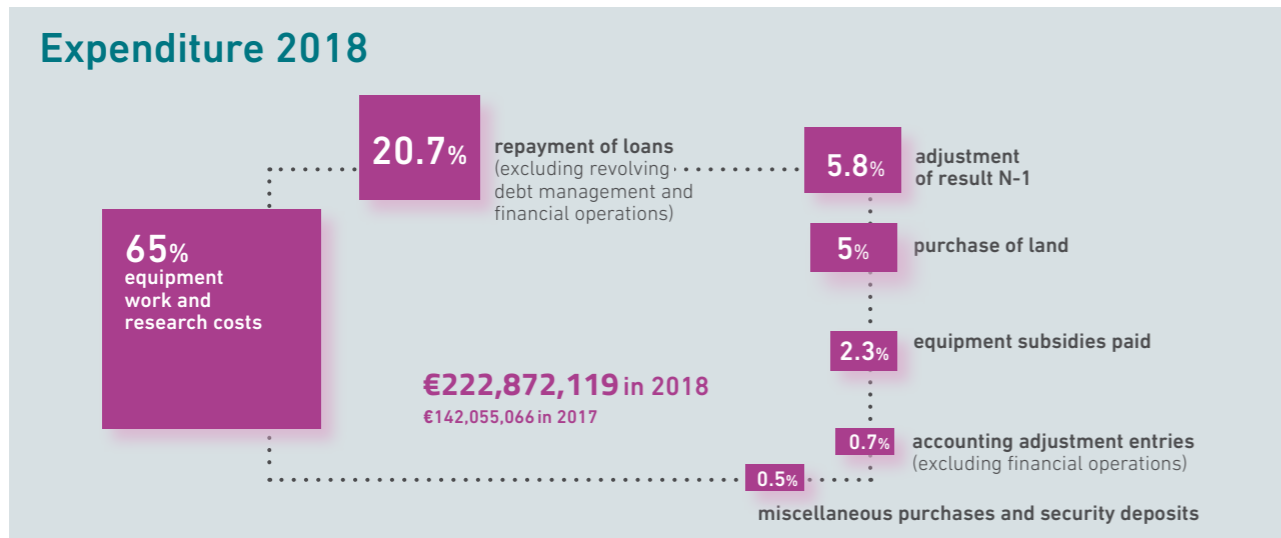
### 2018 DEBT: EVOLUTION OF INDEBTEDNESS

Outstanding debt rose by 3.9% to €425 million at the end of 2018, compared to €409 million at the end of 2017. Several operations explain this development: the repayment of the capital annuity for the loans contracted previously, the early repayment of a risky structured loan, new borrowings at the end of 2018, etc. For these new borrowings, Sycotom prefers indexed rate loans to reduce the share of the fixed component and the high exposure to the risk of falling interest rates.

As of 2018, the debt structure has shifted towards a rebalancing in favour of variable rates:

- a drop in the share of fixed rates, from 67% in 2017 to 64% in 2018;
- an increase in the share of variable rates, from 5% to 16%;
- a drop in the share of structured loans, from 28% to 20%.

## Expenditure 2018



### INVESTMENT: SPEEDING UP THE PROJECTS LAUNCHED

**€162.1M**

#### In 2018, Sycotom continued its investment programme:

- completion of studies and start of works to rebuild the centre at Ivry / Paris XIII;
- continuation of works for flue gas treatment at the Étoile Verte and architectural requalification;
- continuation of works at the selective collection sorting centre in Paris XVII;

- launch of the procedure for the project to build the new centre at Romainville;
- start of the Sycotom/SIAAP co-methanation project;
- continuation of works for the continuous improvement and compliance of the facilities.

## Investment programme by site

### WORKS FOR EXISTING FACILITIES OR NEW PROJECTS

in €M incl. tax

SITES	NATURE OF THE PROGRAMME	IMPLEMENTATION PERIOD	WORKS FINANCED IN 2018
ROMAINVILLE	project to renovate the selective collection sorting line and civil engineering works	2015-2016	10.5
ÉTOILE VERTE AT SAINT-OUEN-SUR-SEINE	project to integrate the centre into the urban area - work for landscaping, architectural redesign and flue gas treatment	2012-2021	52.43
IVRY / PARIS XIII	project for an energy recovery centre	2007-2027	34.16
PARIS XV	project for renovating a sorting centre for selective collection 2017-2019		8.05
PARIS XVII	project for a sorting centre for selective collection	2010-2019	36.09
OTHER PROJECTS (ROMAINVILLE AND SYCOTOM / SIAAP)			7.98
OTHER CAPITAL EXPENDITURE			1.71
<b>TOTAL</b>			<b>150.92</b>

### WORKS FOR THE CONTINUOUS IMPROVEMENT AND COMPLIANCE OF SYCOTOM FACILITIES

in €M incl. tax

SITES	WORKS FINANCED IN 2018	
ISSÉANE	1.45	
IVRY / PARIS XIII	3.05	
NANTERRE	0.98	
ÉTOILE VERTE AT SAINT-OUEN-SUR-SEINE	4.63	
SEVRAN	1.04	
<b>TOTAL</b>	<b>11.15</b>	
<b>GRAND TOTAL OF INVESTMENTS</b>		<b>162.07</b>

# 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 to a vote by the syndicate committee of Sycotom, the metropolitan agency for household waste, during its meeting of 27 June 2019.

## SYCTOM PROCESSING UNITS AND TONNAGE PROCESSED

in tonnes

3 INCINERATION CENTRES WITH ENERGY RECOVERY	AUTHORISED CAPACITY	TECHNICAL CAPACITY	QUANTITIES INCINERATED
ISSÉANE	510,000	510,000	504,025
IVRY / PARIS XIII	730,000	700,000	686,788
ÉTOILE VERTE	650,000	500,000*	489,986

\* Capacity reduced in 2018 due to shutdown for works

5 SORTING CENTRES			QUANTITIES RECEIVED
ISSÉANE	22,500	23,000	24,298
NANTERRE	40,000	40,000	38,718*
PARIS XV	20,000	16,000**	15,394
ROMAINVILLE	53,000	53,000***	50,774
SEVRAN	20,000	20,000	19,141

\* Including 11,834 tonnes from SITRU  
\*\* Capacity reduced following works in 2018  
\*\*\* Capacity increased to 53,000 tonnes in 2018

WASTE RECEPTION CENTRES	QUANTITIES RECEIVED
GENNEVILLIERS	5,616
IVRY / PARIS XIII (CLOSED ON 31/01/2018)	176
MEUDON	5,282
NANTERRE	6,957
ROMAINVILLE	6,558
26 MOBILE WASTE RECEPTION CENTRES OF HAUTS-DE-SEINE	1,908
IVRY MOBILE WASTE RECEPTION CENTRES	329

## OVERALL ANNUAL REPORT

NUMBER OF MUNICIPALITIES WITHIN SYCTOM'S SCOPE	85
NUMBER OF INHABITANTS WITHIN SYCTOM'S SCOPE	5,819,347
Figures taken from the population census for 2015 with an estimated change for 2018	
GROSS TONNAGES OF WASTE	
Household waste, sweepings and green waste (in tonnes)	1,899,271
Requisitions (in tonnes)	175
SELECTIVE COLLECTION (in tonnes)	
Newspapers and magazines, multi-materials, paper, cardboard	187,070
Glass	0
Bulky objects	223,408
Waste reception centres	26,827
Food waste	4,959
Green waste	41
FEES	
Tonnage share (in € t of household waste and bulky objects)	94
Population share (in €/pers.)	5.6

## EXTERNAL UNITS USED BY SYCTOM AND TONNAGE PROCESSED

in tonnes

INCINERATION CENTRES	QUANTITIES INCINERATED
ARGENTEUIL (AZUR)	25,442
CARRIÈRES-SOUS-POISSY (SIDRU)	3,939
CARRIÈRES-SUR-SEINE (SITRU)	15,072
CRÉTEIL (SMITDUVM)	1,678
MASSY (SIMACUR)	3,087
OUARVILLE (SITREVA)	2,692
RUNGIS (RIVED)	8,829
SAINT-THIBAUT-DES-VIGNES (SIETREM)	29,652
SARCELLES (SIGIDURS)	23,207
VAUX-LE-PÉNIL (SMITOM LOMBRIC)	539
VILLEJUST (SIOM)	6,577
VILLERS-SAINT-PAUL (SMDO)	1,929

SC SORTING CENTRES	QUANTITIES RECEIVED*
BUC (NICOLLIN - TRANSFER)	61
IVRY (DERICHEBOURG - TRANSFER)	-94
LE BLANC-MESNIL (PAPREC/SITA)	20,671
LIMEIL (SITA)	26,096
NANTERRE (DERICHEBOURG - TRANSFER)	8
RAMBOUILLET	894
RUNGIS (RIVED)	2,846
SAINT-THIBAUT (SIETREM)	936

SC: selective collection  
\* For transfer centres: quantities received = incoming - outgoing

BO SORTING CENTRES	QUANTITIES RECEIVED (DIRECT CONTRIBUTIONS)
BONNEUIL (TAÏS)	8,428
BUC (NICOLLIN)	10,106
CHÂTILLON (TAÏS)	7,710
GENNEVILLIERS (PAPREC)	7,139
GENNEVILLIERS (SITA)	30,678
IVRY (CEMEX)	28,826
LA COURNEUVE (PAPREC)	47,309
NOISY (DRT)	40,513
PIERREFITTE (CDIF)	4,455
GENNEVILLIERS (PAPREC) Construction BO:	27,976
IVRY (CEMEX) Construction BO:	13,833

BO: Bulky objects

STORAGE FACILITIES FOR HAZARDOUS OR NON-HAZARDOUS WASTE	QUANTITIES
NHWSF VILLEPARISIS (SUEZ)	33,524
NHWSF BOUQUEVAL (REP)	32,368
NHWSF CLAYE-SOUILLY (REP)	121,943
IWSF CLAYE-SOUILLY (REP)	623
IWSF (PRIVATE BO CONTRACTS)	5,046
OTHER NHWSF (PRIVATE CONTRACTS)	81,430
SONDERSHAUSEN SALT MINE (MINDEST)	5,815

## FINANCIAL INDICATORS

Terms of operation of the disposal service awarded to Sycotom, the metropolitan agency for household waste	Public contracts
Total annual amount of expenditure for treating waste by Sycotom (total real expenditure in the operating section of 2018 administrative account - excluding provisions)	€328.2M
Terms and conditions for financing the overall treatment service	Contribution from local authorities, aid from Eco-Emballage for selective collection, sale of products
Terms and conditions for setting the special fee for the disposal of assimilated products	not applicable
Annual total of main contracted and paid treatment services (excluding major maintenance and repairs)	€203.8 M incl. tax
Total annual amount of investment and operating expenses (excluding capital transactions)	€611.3M incl. tax
Income from access rights to treatment and storage centres at which the local authority is the project owner for assimilated waste	not applicable
Repayments for selective collection	Sycotom grants €2.8M Repayments for glass €2.9M
Itemised amount of aid received from approved bodies	Citeo €32.7M OCAD3E €0.2M Éco-Mobilier €3.7M

## RECOVERY

### ENERGY AND MATERIALS RECOVERY

ENERGY AND MATERIALS FROM INCINERATION	
Electricity (IN MWH)	130,750
Steam (IN MWH)	2,752,428
Bottom ash (IN TONNES)	302,107
Ferrous scrap (IN TONNES)	35,697
Non-ferrous scrap (IN TONNES)	2,993
RECYCLING FROM SELECTIVE COLLECTION (IN TONNES)	
Plastics, paper, cardboard, steel and aluminium, small electrical appliances	135,190
RECYCLING OF BULKY OBJECTS (IN TONNES)	
Wood, scrap metal, large cardboard boxes	140,287
WASTE RECEPTION CENTRES (IN TONNES)	
	16,048
ORGANIC COMPOST (IN TONNES)	
	4,260

FROM INCINERATION	
Scrap iron	1.8
Non-ferrous scrap	2.4
COST	4.2

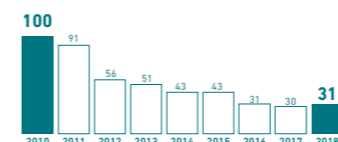
TOTAL	
	20

FROM INCINERATION	
Sale of steam and electricity (Isséane)	18.1
Sale of steam and electricity (Ivry/Paris XIII)	23.8
Sale of steam and electricity (Étoile Verte at Saint-Ouen-sur-Seine)	26.6
TOTAL	68.5

## LANDFILLING

NHWSF (IN TONNES)	(EXCLUDING SORTING REJECTS)
	152,265

INDEX OF REDUCTION in the quantities of non-hazardous, non-inert waste admitted into storage facilities  
Base 100 in 2010



## REVENUES FROM MATERIALS RECOVERY

in €M excl. tax

FROM SORTING OF SELECTIVE COLLECTION AND BULKY OBJECTS	
Newspapers/magazines	3.2
Plastic packaging	2.6
Cardboard and recovered household packaging	4.6
Paper mix	0.6
Steel	0.4
Scrap iron and non-ferrous metals from BO	1.2
Glass	3.1
Wood	0.1
COST	15.8

FROM INCINERATION	
Scrap iron	1.8
Non-ferrous scrap	2.4
COST	4.2

TOTAL	
	20

## REVENUES FROM ENERGY RECOVERY

in €M excl. tax

FROM INCINERATION	
Sale of steam and electricity (Isséane)	18.1
Sale of steam and electricity (Ivry/Paris XIII)	23.8
Sale of steam and electricity (Étoile Verte at Saint-Ouen-sur-Seine)	26.6
TOTAL	68.5

## MEASURES TAKEN DURING THE YEAR TO PREVENT OR REDUCE HARMFUL EFFECTS ON HUMAN HEALTH AND THE ENVIRONMENT

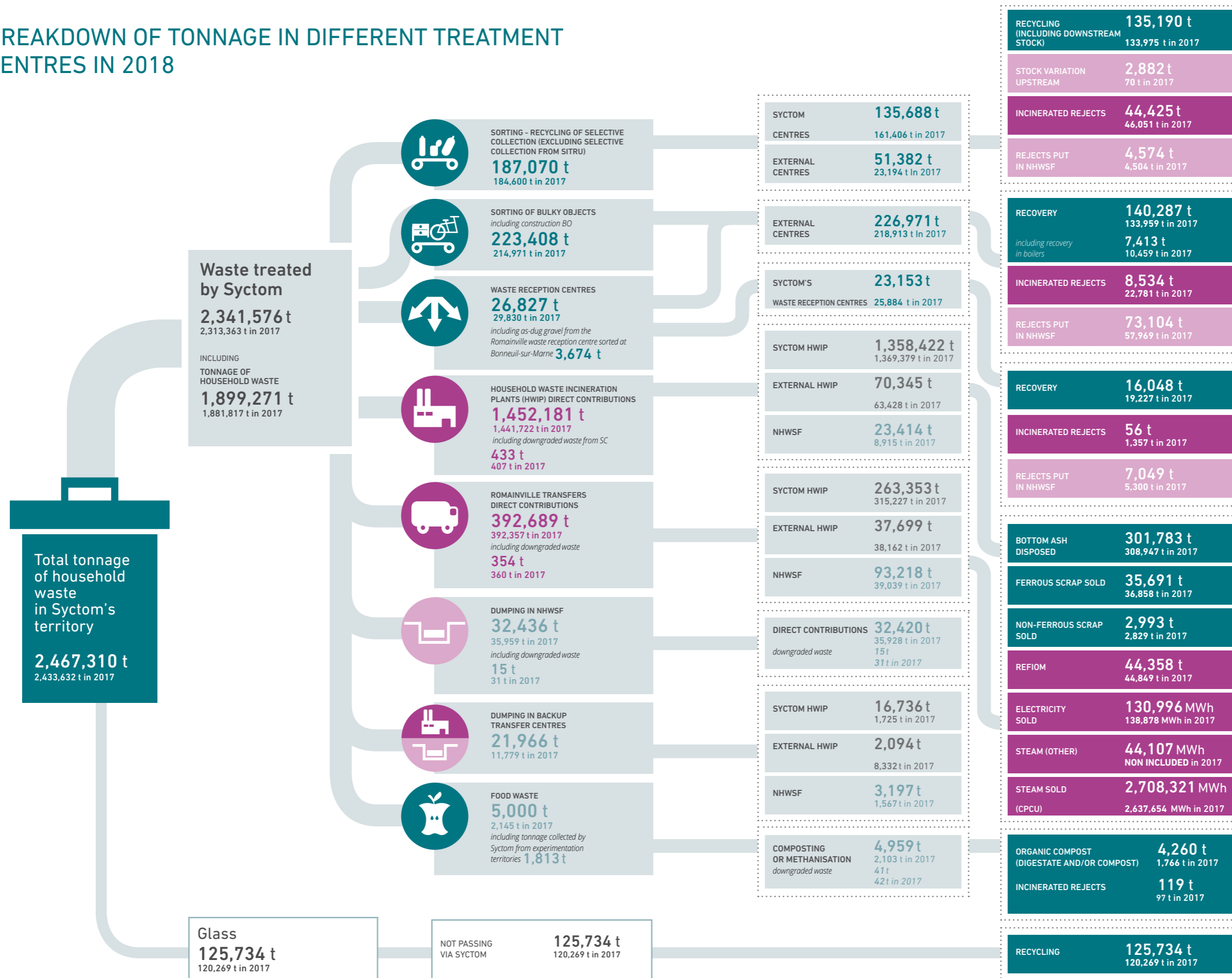
### Continuous improvement and safety at Sycotom facilities

- Launch of the contract for installing video protection on the unloading docks at the Isséane and Ivry/Paris XIII centres
- Completion of works to detect fire in the pits at the Ivry/Paris XIII centre
- Completion of studies to improve fire protection at the Ivry/Paris XIII centre
- Completion of metallurgy studies related to the machine compliance at the Étoile Verte and Ivry/Paris XIII centres
- Completion of the works to install video protection on the unloading dock at the Étoile Verte centre
- Completion of works to secure and improve working conditions at the unloading dock in the Étoile Verte centre
- Completion of studies to improve the fire network at the Isséane centre
- Completion of metalwork related to machine compliance at the Isséane centre
- Completion of electrical work related to machine conformity at the Sevran and Nanterre centres
- Continued participation in the ICSI group

### Control of emissions into the environment

- Modernisation of the Étoile Verte ERU at Saint-Ouen-sur-Seine:
  - Launch of works to modify the first flue gas treatment line
  - Launch of works to modify the treatment of industrial effluents
  - Launch of a contract for monitoring and identifying sources of odours
- Continuation of half-yearly campaigns (conducted by Sycotom) to measure emissions from ERU stacks.

# BREAKDOWN OF TONNAGE IN DIFFERENT TREATMENT CENTRES IN 2018



**Total material and organic recovery**  
754,903 t  
747,370 t in 2017  
I.E.

**30.7% of waste**  
INCLUDING

**BOTTOM ASH**  
302,107 t  
308,947 t in 2017

**Total energy recovery**  
HOUSEHOLD WASTE + DOWNGRADED WASTE + SORTING REJECTS  
1,809,196 t  
1,877,018 t in 2017  
I.E.

**59.7% of waste\***

**Total Sycotom landfilling in NHWSF**  
HOUSEHOLD WASTE + DOWNGRADED WASTE  
152,265 t  
85,470 t in 2017

HOUSEHOLD WASTE + DOWNGRADED WASTE + SORTING REJECTS  
236,991 t  
153,243 t in 2017  
I.E.

**9.6% of waste**

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

# TREATMENT COSTS

## 2018



### Cost per waste stream and treatment mode (in €M)

	INCINERATION	NHWSF	SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
<b>Tonnage treated</b>	<b>1,813,122</b>	<b>154,311</b>	<b>186,840</b>	<b>225,921</b>	<b>27,988</b>	<b>3,132</b>
Contracts and operating costs*	162.3	15.4	50.2	28.2	5.1	0.5
VAT recovery	-3.3	-0.3	-4.0	-0.6	-0.1	0.0
Depreciations/Financial costs	64.7	1.3	9.6	-	-	-
<b>FULL COST OF TREATMENT</b>	<b>233.7</b>	<b>16.3</b>	<b>55.9</b>	<b>27.6</b>	<b>5.0</b>	<b>0.5</b>
Revenues from the sale of materials	4.1	-	11.8	1.5	0.1	-
Grants from eco-organisations retained by Sycptom	9.0	-	24.6	1.8	0.1	-
Other revenues (e.g. energy for incineration)	68.1	-	1.9	-	0.1	-
<b>TOTAL OWN REVENUES</b>	<b>81.3</b>	<b>-</b>	<b>38.3</b>	<b>3.3</b>	<b>0.2</b>	<b>-</b>
<b>NET COST OF TREATMENT</b>	<b>142.4</b>	<b>16.3</b>	<b>17.6</b>	<b>24.3</b>	<b>4.7</b>	<b>0.5</b>
	79 €/t	105 €/t	94 €/t	107 €/t	170 €/t	165 €/t
Grants/repayments by Sycptom for the benefit of members	4.1	0.1	6.5	1.9	-	0.1
Grants and material revenues received by Sycptom on behalf of members	-	-	6.0	1.9	0.0	-
<b>NET COST OF THE SUPPORT POLICY</b>	<b>4.1</b>	<b>0.1</b>	<b>0.5</b>	<b>-</b>	<b>-</b>	<b>0.1</b>
	2 €/t	1 €/t	3 €/t	0 €/t	0 €/t	30 €/t
<b>NET OVERALL COST (treatment and support)</b>	<b>146.5</b>	<b>16.4</b>	<b>18.2</b>	<b>24.3</b>	<b>4.7</b>	<b>0.6</b>
	81 €/t	106 €/t	97 €/t	107 €/t	170 €/t	195 €/t

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

\*\* excluding tonnages received from SITRU at the Nanterre sorting centre

\*\*\* excluding tonnages and costs for experimentation

## 2018

### Cost of all streams combined (HW/SC/BO/waste reception centre)

	TOTAL COST	TOTAL TONNAGE TREATED**	POPULATION INSEE 2015
	€M	€/tonne	€/pers.
Full cost*	324.1	138	57
Total own revenues	123.2	53	21
<b>NET COST OF TREATMENT</b>	<b>201.0</b>	<b>85</b>	<b>36</b>
<b>NET COST OF THE SUPPORT POLICY</b>	<b>4.8</b>	<b>2</b>	<b>1</b>
+ Structural charges	18.2	8	3
+ Prevention / Experimentation	6.9	3	1
<b>NET OVERALL COST</b>	<b>230.9</b>	<b>99</b>	<b>40</b>

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

\*\* in 2018, for the calculation of the ratios in €/pers, the population of Noisy-le-Grand is multiplied by a coefficient of 0.5 because this municipality became a member in the middle of the year

### Notable factors explaining the changes seen in 2018

- Biowaste continued to grow for a stable cost (€/t) compared to 2017.
- The cost of treating selective collection in €/t was also stable because the growth in expenditure was offset by an increase in revenue to the same extent. There was a sharp increase in the grants from eco-organisations while material revenues stagnated.
- The costs of treating (€/t) bulky objects and at waste reception centres were relatively stable.
- On the other hand, the net cost of treatment by incineration increased significantly (+10€/t) because of the increase in major maintenance and repair expenditure, while the grants from eco-organisations decreased (because redirected towards SC) while the tonnages treated decreased because of shutdowns for works at the Étoile Verte.
- The €19 million increase in the overall net cost (i.e. +6€/t and +3€/pers) was mainly due to the increased cost of treating residual household waste and the works at the Étoile Verte, which led to a greater use of external treatment in NHWSF (+€7.6 million) while the fixed costs of the Sycptom's HWIP remained and revenues decreased. There was also an increase in expenses for biowaste prevention and experimentation (+€2.2 million).

## 2017



	INCINERATION	NHWSF	SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
<b>Tonnage treated</b>	<b>1,857,511</b>	<b>87,348</b>	<b>184,600**</b>	<b>218,913</b>	<b>29,830</b>	<b>2,063</b>
Contracts and operating costs*	154.9	8.3	46.5	27.4	5.5	0.4
VAT recovery	-2.0	-0.1	-3.7	-0.4	-0.1	-0.0
Depreciations/Financial costs	63.7	0.5	10.2	-	-	-
<b>FULL COST OF TREATMENT</b>	<b>216.7</b>	<b>8.6</b>	<b>53.1</b>	<b>27.0</b>	<b>5.4</b>	<b>0.3</b>
Revenues from the sale of materials	3.9	-	14.2	1.9	0.1	-
Grants from eco-organisations retained by Sycptom	12.8	-	19.5	1.6	0.1	-
Other revenues (e.g. energy for incineration)	67.2	-	1.9	-	0.1	-
<b>TOTAL OWN REVENUES</b>	<b>83.9</b>	<b>-</b>	<b>35.6</b>	<b>3.5</b>	<b>0.2</b>	<b>-</b>
<b>NET COST OF TREATMENT</b>	<b>132.4</b>	<b>8.6</b>	<b>17.4</b>	<b>23.5</b>	<b>5.2</b>	<b>0.3</b>
	71 €/t	99 €/t	94 €/t	107 €/t	173 €/t	166 €/t
Grants/repayments by Sycptom for the benefit of members	4.0	0.1	5.5	1.6	0.0	0.1
Grants and material revenues received by Sycptom on behalf of members	-	-	5.1	1.6	0.0	-
<b>NET COST OF THE SUPPORT POLICY</b>	<b>4.0</b>	<b>0.1</b>	<b>0.5</b>	<b>-</b>	<b>-</b>	<b>0.1</b>
	2 €/t	1 €/t	3 €/t	0 €/t	0 €/t	30 €/t
<b>NET OVERALL COST (treatment and support)</b>	<b>136.4</b>	<b>8.7</b>	<b>18.2</b>	<b>23.0</b>	<b>5.3</b>	<b>0.4</b>
	73 €/t	100 €/t	98 €/t	105 €/t	174 €/t	196 €/t

\*\* excluding tonnages received from SITRU at the Nanterre sorting centre

\*\*\* excluding tonnages and costs for experimentation

## 2017

	TOTAL COST	TOTAL TONNAGE TREATED*	POPULATION INSEE 2014
	€M	€/tonne	€/pers.
	2,296,753	5,725,612	
Full cost*	305.8	133	53
Total own revenues	123.3	54	22
<b>NET COST OF TREATMENT</b>	<b>182.5</b>	<b>79</b>	<b>32</b>
<b>NET COST OF THE SUPPORT POLICY</b>	<b>4.6</b>	<b>2</b>	<b>1</b>
+ Structural charges	19.1	8	3
+ Prevention / Experimentation	4.7	2	1
<b>NET OVERALL COST</b>	<b>210.9</b>	<b>92</b>	<b>37</b>

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

## 2016



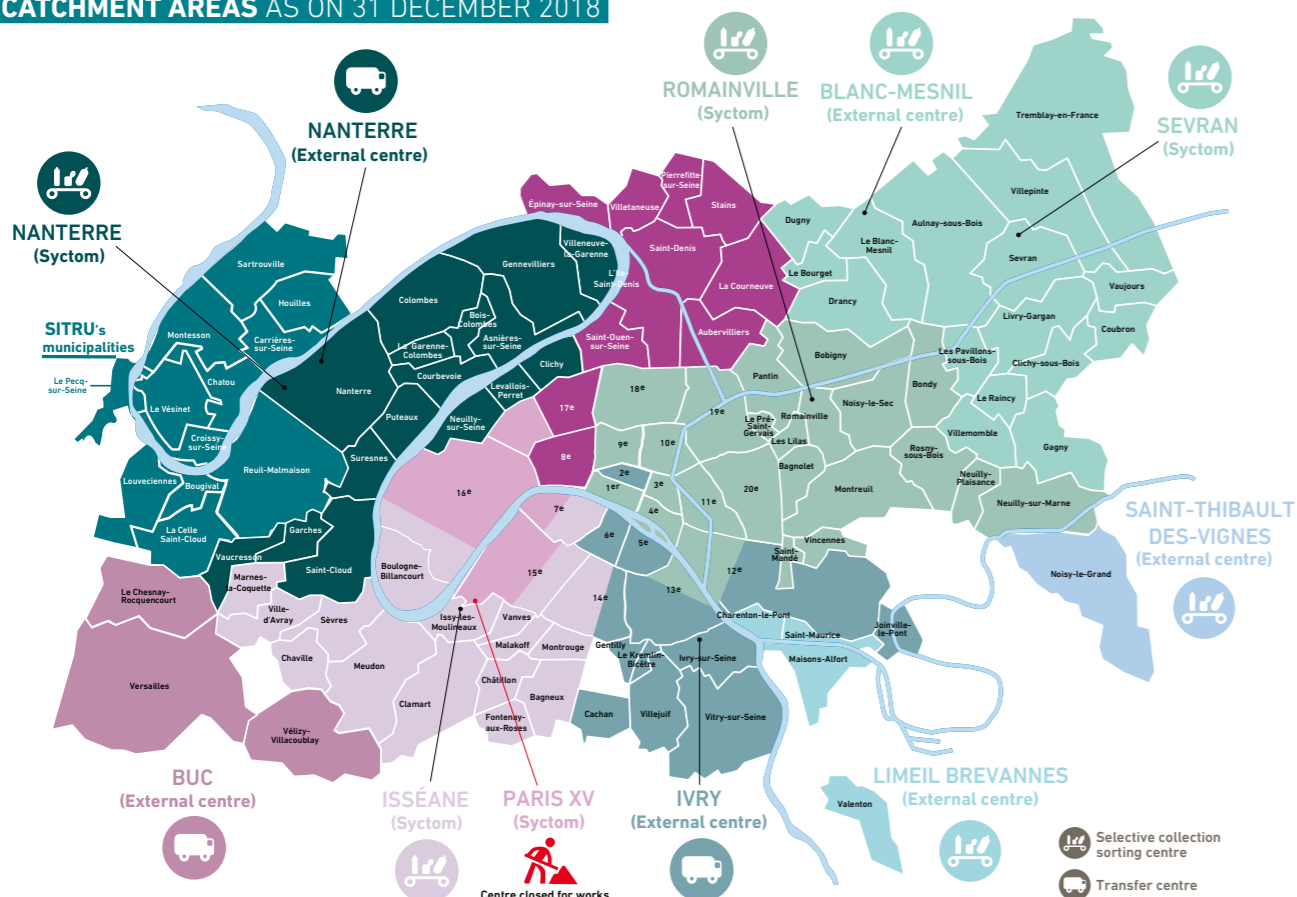
	INCINERATION	NHWSF	SELECTIVE COLLECTION**	BULKY OBJECTS	WASTE RECEPTION CENTRE	FOOD WASTE***
<b>Tonnage treated</b>	<b>1,864,357</b>	<b>81,472</b>	<b>181,110</b>	<b>204,804</b>	<b>13,764</b>	<b>13,764</b>
Contracts and operating costs*	154.6	7.0	43.4	25.0	2.0	0.0
VAT recovery	-1.4	-0.1	-3.4	-0.3	-0.0	-0.0
Depreciations/Financial costs	63.5	0.1	7.2	-	-	-
<b>FULL COST OF TREATMENT</b>	<b>216.6</b>	<b>7.0</b>	<b>47.3</b>	<b>24.7</b>	<b>2.0</b>	<b>0.0</b>
Revenues from the sale of materials	2.7	-	13.1	1.5	0.1	-
Grants from eco-organisations retained by Sycptom	12.9	-	18.6	1.5	0.1	-
Other revenues (e.g. energy for incineration)	63.4	-	1.9	-	-	-
<b>TOTAL OWN REVENUES</b>	<b>79.0</b>	<b>-</b>	<b>33.7</b>	<b>3.1</b>	<b>0.1</b>	<b>-</b>
<b>NET COST OF TREATMENT</b>	<b>137.7</b>	<b>7.0</b>	<b>13.6</b>	<b>21.6</b>	<b>1.8</b>	<b>0.0</b>
	74 €/t	86 €/t	75 €/t	106 €/t	133 €/t	
Grants/repayments by Sycptom for the benefit of members	3.8	0.1	5.4	1.5	0.0	0.0
Grants and material revenues received by Sycptom on behalf of members	-	-	5.0	1.5	0.0	-
<b>NET COST OF THE SUPPORT POLICY</b>	<b>3.8</b>	<b>0.1</b>	<b>0.4</b>	<b>-</b>	<b>-</b>	<b>-</b>
	2 €/t	1 €/t	2 €/t	0 €/t	0 €/t	
<b>NET OVERALL COST (treatment and support)</b>	<b>141.5</b>	<b>7.1</b>	<b>13.9</b>	<b>21.6</b>	<b>1.8</b>	<b>0.0</b>
	76 €/t	87 €/t	77 €/t	106 €/t	133 €/t	

### Some information on methodology

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

# SELECTIVE COLLECTION

## CATCHMENT AREAS AS ON 31 DECEMBER 2018



## BREAKDOWN OF TONNAGES 2018

SORTING CENTRES	TONNAGES		Variations in stock		TONNAGES RECOVERED	OPERATORS / CONTRACTORS
	RECEIVED (including downgraded waste)	SORTED	upstream	downstream		
<b>SYCTOM SORTING CENTRES</b>						
ISSÉANE	24,298	24,297	-110	88	17,655	TSI
NANTERRE (SYCTOM CONTRIBUTIONS)	26,884	26,730	-120	-48	17,753	VEOLIA PROPRETÉ
NANTERRE (SITRU CONTRIBUTIONS)	11,834	11,817	-	-	8,459	VEOLIA PROPRETÉ
PARIS XV	15,394	15,651	-274	-	12,132	IHOL
ROMAINVILLE	50,774	50,25	-104	-287	40,701	URBASER
SEVRAN	19,141	19,043	50	-42	12,770	IHOL
<b>EXTERNAL SORTING CENTRES</b>						
BUC (TRANSFER)	61	61	56	-	0	NICOLLIN
LE BLANC-MESNIL	20,671	18,836	1,810	-454	12,796	PAPREC
LIMEIL	26,096	24,473	1,623	1,709	17,958	SUEZ
IVRY (TRANSFER)	-94	-2	-100	-	0	DERICHEBOURG
NANTERRE (TRANSFER)	8	10	-2	-	0	DERICHEBOURG
RAMBOUILLET	894	840	54	-42	526	SUEZ
RUNGIS	2,846	2,846	-	-	2,196	RIVED
SAINT-THIBAUT DES VIGNES	936	936	-	-	702	SIETREM
<b>TOTAL</b>	<b>199,743</b>	<b>196,002</b>	<b>2,883</b>	<b>924</b>	<b>143,648</b>	

## RECYCLABLE MATERIALS RECOVERY CHANNELS

in tonnes

	TONNAGES SYCTOM 2018	PURCHASERS	DESTINATION	FUTURE	TRANSPORT
NEWSPAPERS REVIEWS MAGAZINES	44,449	UPM	Paper mills UPM-Chapelle Darblay at Grand-Couronne 76	Newspaper	90 % river (barge or container) the rest by road
Brown cardboard recyclable household packaging (EMR) + thin cardboard packaging	53,401	SUEZ RV	Paper mills Europac 76 Saica 02 Emin Leydier 10	Brown cardboard, corrugated base paper	40 % of river transport (barge), the rest by road
PAPER MIX	16,440	UDREP	Cardboard mills of Gondardennes or RenoDiMedici 62	Corrugated or flat cardboard	Road
LIGHT FOOD PACKAGING (LFP)	1,350	REVIPAC	Paper mill Georgia Pacific 45 Nova Tissue 88	Toilet and household paper	Road
PACKAGING IN RIGID PLASTIC SUCH AS PET	9,301	SUEZ RV	Mostly FPR Limay factory 78 and Near Europe	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	3,039	PAPREC GROUP	Mostly factory Plastic material from Bourgogne 71 Lunen and Osnabruck Germany Eschlikon Switzerland	Raw material regenerated in the form of granules that can be used to make various plastic products (sewer pipes, watering cans, etc.)	Road
PACKAGING IN RIGID PLASTIC SUCH AS HDPE OR PP OR PS	675	PAPREC GROUP	Mostly factory Plastic material from Bourgogne 71 Lunen, Duisbourg, Bernburg and Osnabruck Germany		
LDPE FILMS AND COVERS	1,386	SUEZ RV	Machaon factory 51	Raw material regenerated in the form of granules used to make plastic films and miscellaneous plastic products	Road
ALUMINIUM FROM SELECTIVE COLLECTION	454	REGEAL AFFIMET / SUEZ RV	Regeal-Affimet factory at Compiègne 60 Alunova factory Germany (for the experimental small aluminium streams from Nanterre)	Aluminium alloys	Road
ALUMINIUM FROM BOTTOM ASH	2,869	GALOO	GALOO factory at Halluin Belgium	Aluminium alloys	Road
STEEL FROM SELECTIVE COLLECTION	2,963	ARCELOR MITTAL	Arcelor factory at Dunkerque 59		
STEEL FROM BOTTOM ASH	34,212	GALOO	Large scrap metal: taken over by GALLOO IDF at Bonneuil s/ Marne 94 Small scrap metal: taken over by GALLOO Metal or other subcontractors Belgium and 59	Steel products	Road

## Waste reception centres

WASTE RECEPTION CENTRES	TONNAGES RECEIVED	TONNAGES RECOVERED	OPERATORS
26 MOBILE WASTE RECEPTION CENTRES	1,908	882	SUEZ
GENNEVILLIERS	5,616	2,740	SUEZ
IVRY	176	120	SUEZ
IVRY MOBILE WASTE RECEPTION CENTRE	329	164	SUEZ
NANTERRE	6,957	3,276	SUEZ
MEUDON	5,282	2,962	SUEZ
ROMAINVILLE	6,558	2,884*	GENERIS
<b>TOTAL</b>	<b>26,826</b>	<b>13,028</b>	

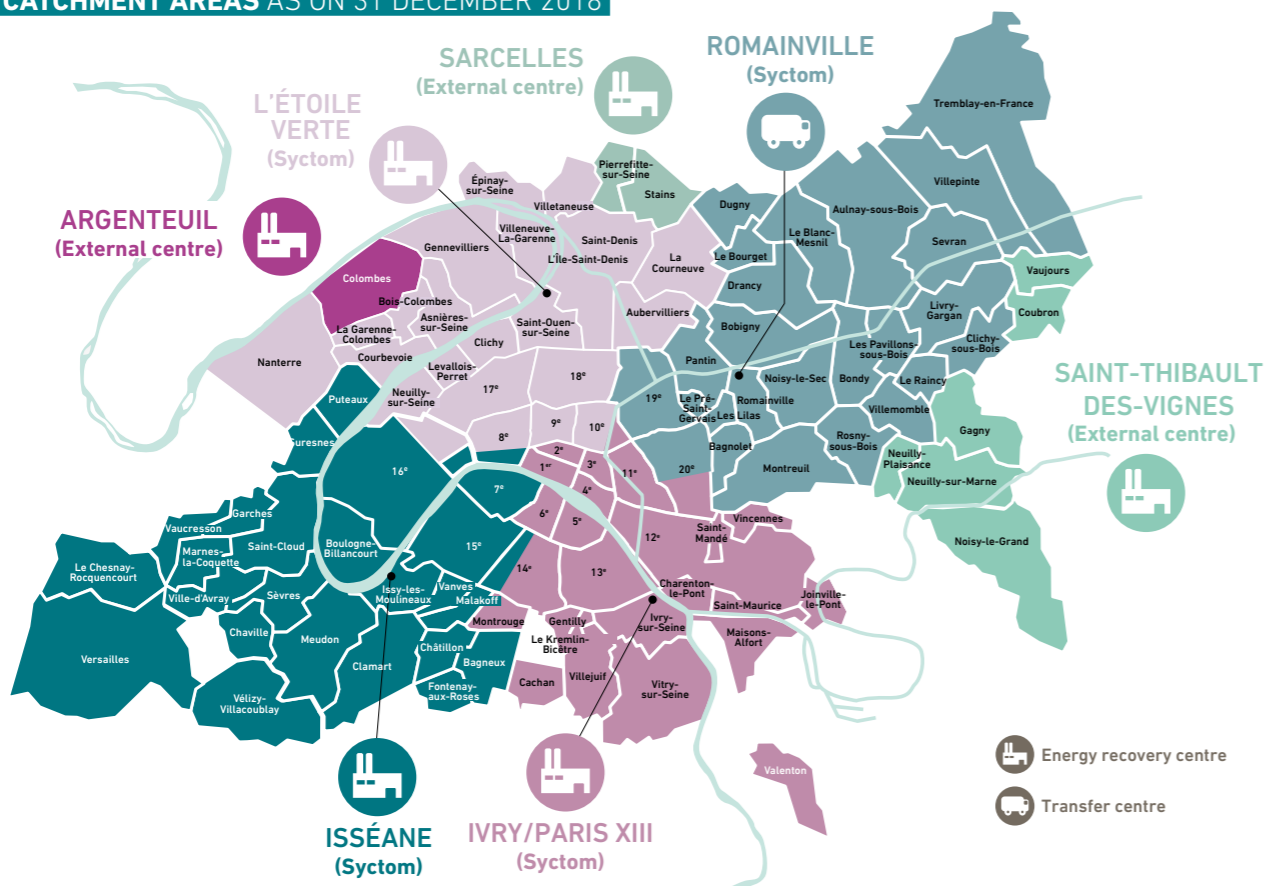
\* The as-dug gravel from the Romainville waste reception centre is then sorted in a BO centre. Tonnages recovered from this sorting are not included here.

## Food waste

TREATMENT SITES	RECEPTION/TRANSFER SITES	TREATMENT METHOD	QUANTITIES (T)
PROVENCY - 89	Villeneuve-St-Georges - 94	Methanisation	343
GAILLON - 27	Villeneuve-St-Georges - 94	Methanisation	705
CHÂTEAU-RENARD - 45	Villeneuve-St-Georges - 94	Methanisation	795
GRAINCOURT-LES-HAVRINCOURT - 62	Villeneuve-St-Georges - 94	Methanisation	48
ÉTAMPES - 91	Saint-Denis - 93	Methanisation	2,726
BLARINGHEM - 59	Limeil-Brevannes - 94	Methanisation	56
VERT-LE-GRAND - 91	Vert-Le-Grand - 91	Composting	286

# RESIDUAL HOUSEHOLD WASTE

## CATCHMENT AREAS AS ON 31 DECEMBER 2018



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

NATURE OF EMISSIONS Concentrations in mg/Nm <sup>3</sup> at 11 % O <sub>2</sub>	Concentrations in mg/Nm <sup>3</sup> at 11 % O <sub>2</sub>								
	Dust	Hydrochloric acid	Hydrofluoric acid	Sulphur dioxide	Nitrogen oxide	Cadmium + thallium	Mercury	Antimony + lead + chrome + cobalt + copper + manganese + nickel + vanadium	Dioxins and furans (in ng I-TEQ /m <sup>3</sup> )
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
<b>IVRY / PARIS XIII</b>									
February	3.1	1.2	0.14	22	51	0.005	0.0002	0.20	0.022
May (Sycotom)	2.1	1.1	0.01	25	63	0.001	0.002	0.07	0.010
September	3.8	0.7	0.01	20	72	0.010	0.061	0.08	0.013
October (Sycotom)	4.4	0.4	0.02	41	55	0.002	0.0001	0.08	0.001
<b>ÉTOILE VERTE</b>									
March	0.8	1.2	0.01	12	79	0.001	0.0007	0.09	0.002
April (Sycotom)	3.8	0.8	0.04	16	47	0.001	0.001	0.08	0.026
July	2.8	0.5	0.0007	5	45	0.004	0.0055	0.17	0.001
December (Sycotom)	0.7	0.4	0.02	4	24	0.0004	0.00263	0.01	0.00001
<b>ISSÉANE</b>									
February	2.2	4.0	0.03	2.9	43	0.0001	0.0009	0.09	0.006
June (Sycotom)	0.6	3.8	0	2.4	35	0.0005	0.0009	0.04	0.002
June	1.3	3.4	0	2.5	38	0	0	0.04	0.004
July	0.4	3.1	0.3	2.1	30	0.00004	0.001	0.04	0.008
October	0.5	6.1	0.01	2.5	34	0.0006	0.004	0.04	0.007
November (Sycotom)	0.7	8.1	0	3.7	32	0.0001	0.002	0.01	0.002

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

## BREAKDOWN OF TONNAGES 2018

INCINERATION UNITS	TONNAGES INCINERATED	ENERGY						OPERATORS / CONTRACTORS
		Steam sold (IN MWH)	Electricity sold (IN MWH)	Bottom ash (IN TONNES)	Ferrous scrap (IN TONNES)	Non-ferrous scrap (IN TONNES)		
ISSÉANE	504,025	726,276	46,087	79,482	9,210	828	TSI	
IVRY / PARIS XIII	686,788	1,010,489	56,335	114,886	15,136	1,151	IP13	
ÉTOILE VERTE	489,986	971,555	2,070	83,540	9,865	890	DALKIA WASTENERGY	
<b>TOTAL SYCTOM CENTRES**</b>	<b>1,680,799</b>	<b>2,708,320</b>	<b>104,492</b>	<b>277,908</b>	<b>34,211</b>	<b>2,869</b>		
ARGENTEUIL	25,442	1,468	6,427	6,360	390	-	AZUR	
CARRIÈRES-SOUS-POISSY	3,939	8,841	1,280	751	34	6	SIDRU	
CARRIÈRES-SUR-SEINE	15,072	3,487	979	1,924	197	11	SITRU	
CRÉTEIL	1,678	868	557	292	13	6	SMITDUVM	
MASSY	3,087	-	-	573	34	3	SIMACUR	
OUARVILLE	2,692	-	-	431	-	-	SITREVA	
RUNGIS	8,829	-	-	1,460	47	5	RIVED	
SAINT-THIBAUT-DES-VIGNES	29,652	-	10,433	5,405	184	41	SIETREM	
SARCELLES	23,207	21,629	4,353	5,267	491	42	SIGIDURS	
VAUX-LE-PENIL	539	-	246	99	6	-	SMITOM-LOMBRIC	
VILLEJUST	6,577	7,193	1,569	1,229	58	7	SIOM	
VILLERS-SAINT-PAUL	1,929	620	660	408	31	3	SMDO	
<b>TOTAL EXTERNAL CENTRES**</b>	<b>122,643</b>	<b>44,106</b>	<b>26,504</b>	<b>24,200</b>	<b>1,485</b>	<b>124</b>		
<b>TOTAL</b>	<b>1,803,442</b>	<b>2,752,426</b>	<b>130,996</b>	<b>302,107</b>	<b>35,697</b>	<b>2,993</b>		

\* For external HWIPs, the tonnage given corresponds with the tonnage incinerated on Sycotom's behalf.  
\*\* This tonnage includes actually incinerated waste, excluding pit-level variations in Sycotom's HWIPs.

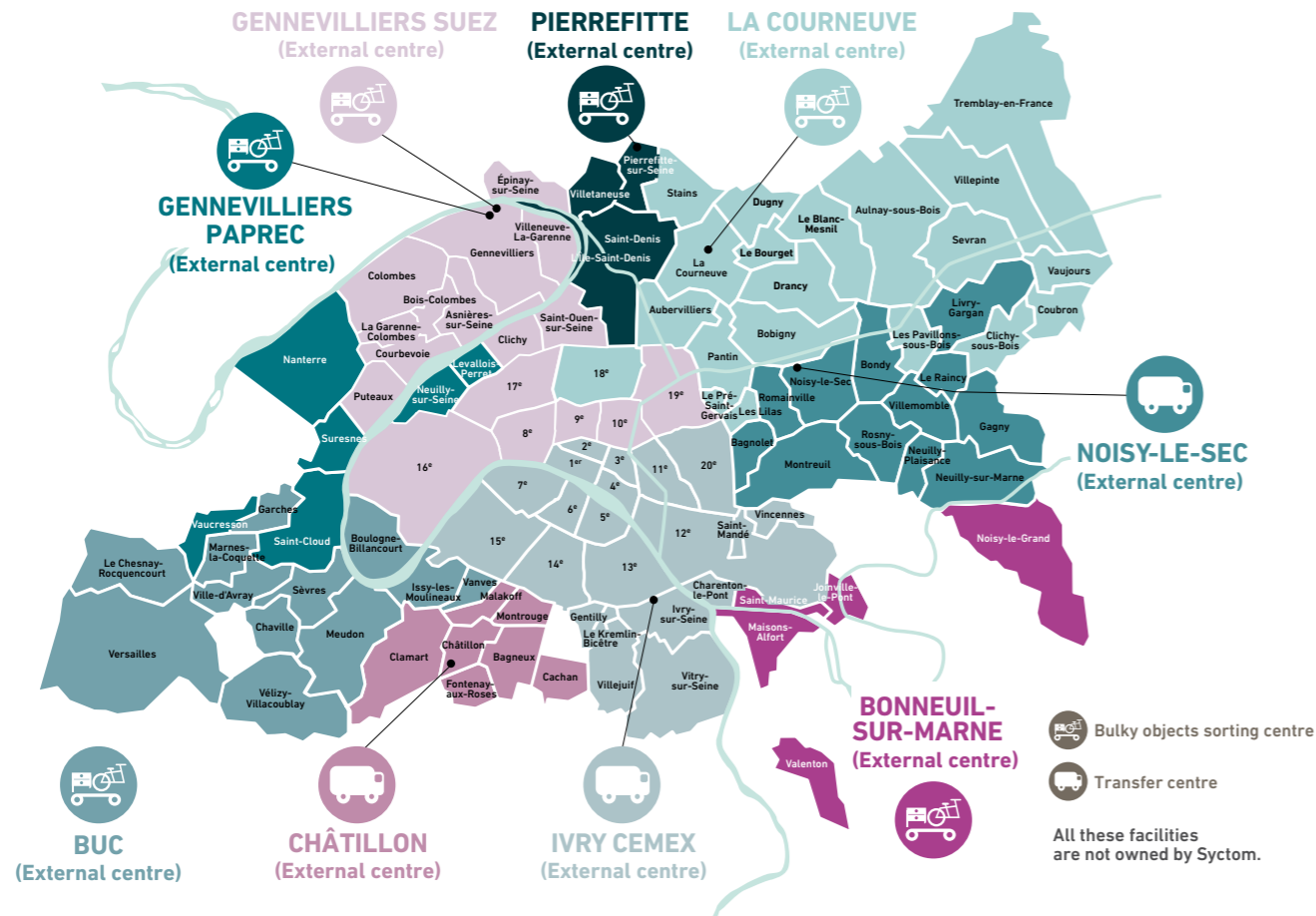
## Waste dumped in storage facilities

REFIOM PRODUCED BY HWIP		NON-HAZARDOUS WASTE SENT TO NHWSFS		NHWSF EXCLUDING SYCTOM CONTRACT
HWIP in Ivry/Paris XIII	17,205	HW from Romainville Centre	30,474	
HWIP in Isséane	14,573	HW from backup centres	557	Sorting rejects from BO
HWIP at Étoile Verte	10,253	HWIP HW at Étoile Verte	1,337	Put in NHWSF of external HWIPs
<b>TOTAL HWSF</b>	<b>42,031</b>	<b>TOTAL</b>	<b>32,368</b>	<b>TOTAL NHWSF (excluding Sycotom contract)</b>
				<b>81,430</b>
<b>INERT WASTE SENT TO IWSFS</b>		<b>CLAYE-SOUILLY (SYCTOM CONTRACT)</b>		<b>TOTAL NHWSF</b>
CLAYE-SOUILLY (SYCTOM CONTRACT)		HW from direction contributions	32,420	<b>235,741</b>
Rubble from Ivry waste reception centre	81	HW from Romainville Centre	65,067	
Rubble from Romainville waste reception centre	542	HW from Ivry HWIU	5,000	
<b>TOTAL</b>	<b>623</b>	HWIP HW at Étoile Verte	13,868	
		HW from Isséane energy recovery unit	1,001	
<b>CENTRE EXCLUDING SYCTOM CONTRACT</b>		HW from backup centres	2,640	
Rubble from construction BO contracts	0	SC rejects and downgraded waste from the sorting centre at Sevran	1,947	
Rubble from BO private contracts	5,046	<b>TOTAL</b>	<b>121,943</b>	
<b>TOTAL IWSF</b>	<b>5,046</b>	<b>TOTAL NHWSF (Sycotom contract)</b>	<b>154,311</b>	<b>TOTAL WASTE dumped in storage centres</b>
				<b>283,441</b>







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

# BULKY OBJECTS

## CATCHMENT AREAS AS ON 31 DECEMBER 2018



## BREAKDOWN OF TONNAGE 2018

 SORTING CENTRES FOR BULKY OBJECTS	 TONNAGES RECEIVED	 TONNAGES RECOVERED	OPERATORS	 SORTING OF CONSTRUCTION BULKY OBJECTS	 TONNAGES RECEIVED	 TONNAGES RECOVERED	OPERATORS
BUC	10,106	9,461*	NICOLLIN	GENNEVILLIERS	27,976	27,442	PAPREC
CHÂTILLON	7,710		TAÏS	IVRY	13,833	12,064	CEMEX
GENNEVILLIERS (SUEZ)	30,678	16,880	SUEZ	TOTAL	41,809	39,506	
GENNEVILLIERS (PAPREC)	7,139	3,797	PAPREC	TOTAL	226,973	140,288	
LA COURNEUVE	47,309	25,455	PAPREC				
NOISY REVIVAL	40,513	25,171*	DRT				
PIERREFITTE	4,455		CDIF				
IVRY (CEMEX)	28,826	20,018*	CEMEX				
BONNEUIL	8,428		TAÏS				
TOTAL	185,164	100,782					

\* Recovered tonnages come from bulky objects as direct contributions and as transfers from other sites





**l'agence  
métropolitaine  
des déchets  
ménagers**

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

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