



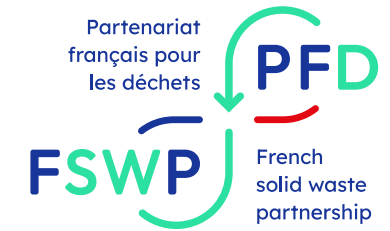
Sound waste management protects water resources.

It relies on ...

Public policies & enforcement that

- Set national and local strategies;
- Assign roles and responsibilities while providing local autonomy;
- Establish organisational, financial, and regulatory frameworks;
- Define standards and minimum requirements.

 *Water, wastewater and waste management all need such public policies & enforcement.*

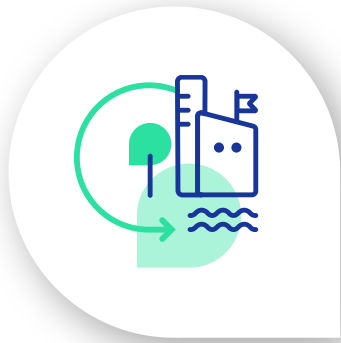


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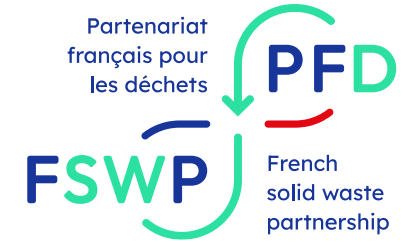
PAPREC





Local governance

Improving environmental quality through solid waste management



WASTE & LAND-USE
PLANNING

Governance



VIETNAM – Vinh Phuc



Waste management improvement measures and monitoring for 30 small towns in the Red River Delta Province

- Environment Cooperatives are strengthened through trainings, a cooperatives' network, a contractual system
- Dialogues between local, regional and the environment cooperatives are established

➔ <https://gret.org/projet/gestion-durable-des-dechets-dans-la-province-de-vinh-phuc-vietnam/>

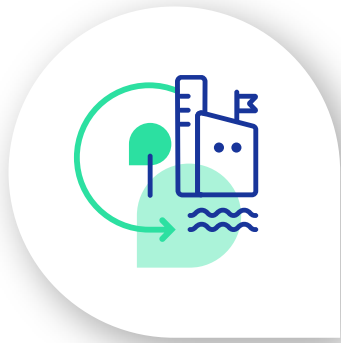
WATER BENEFIT

- > Improve drainage
- > Reduced pollution in the river

CO-BENEFIT

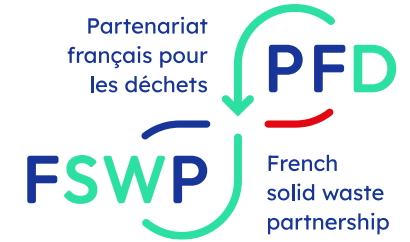
- > Increase to 75% of waste being well managed in the Province
- > Waste to energy and composting, pilot facilities





GEDEC Project

Local authorities' capacity for solid waste and sanitation management



WASTE & LAND-USE
PLANNING

Local Policies



Solid waste management and fecal sludge management locally tailored systems in 5 municipalities.

- Co-defining each local strategy with the community
- Data consolidation
- Building local autonomy of municipal teams
- Implementation, monitoring and evaluation

→ <https://gret.org/projet/gedec/>

WATER BENEFIT

- > Improve drainage
- > Reduced pollution in the river

CO-BENEFIT

- > 750 000 people with an improved quality of life
- > Improved hygiene



TOGO – Régions centrale –
Kara – Maritime – Plateaux –
Savanes





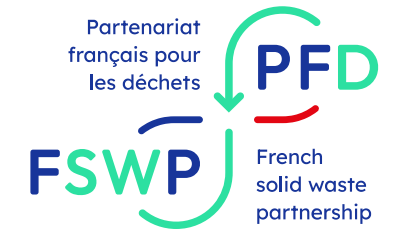
Sound waste management protects water resources.

It relies on ...

Funding mechanisms that

- Enable **cost recovery** to sustain **long-term operation**;
- **Incentivise prevention** and **environmentally sound management of waste**;
- **Make environmental and social impacts visible** to producers and consumers;
- **Leverage international cooperation** and **investments**.

 *Water, wastewater and waste management all need such funding mechanisms.*

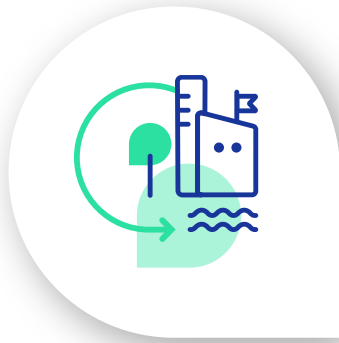


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Funding Mechanisms



FRANCE - Paris



Extended Producer Responsibility

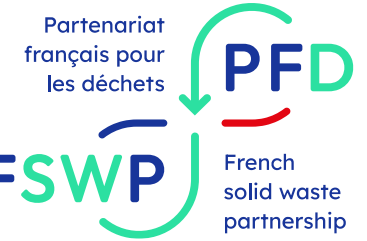
Product vendors contribute to finance the recycling or final disposal of packaging waste to prevent pollution



Product Responsibility Organisations are private companies accredited by the State :

- They have to be controlled by public authorities to ensure equal service to all citizens;
- They distribute the financial resources to the operators;
- In the case of Sytom they contribute 11% of the total operating budget (2023)

➔ [Les filières à Responsabilité Élargie du Producteur | Filières à Responsabilité Élargie du Producteur \(ademe.fr\)](https://www.ademe.fr/fr/les-fili%C3%A8res-%C3%A0-responsabilit%C3%A9-%C3%A9largie-du-producteur)



WATER BENEFIT

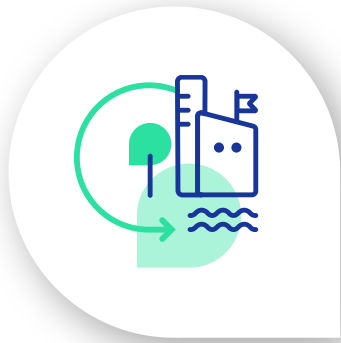
> Learn from this established mechanism for future EPR on pharmaceuticals and other micropollutants in wastewater

CO-BENEFIT

> Reduced costs for public authorities in charge of prevention, collection and treatment.

> Incentives for producers to eco-design





WASTE & LAND-USE
PLANNING

Funding Mechanisms



TUNISIA



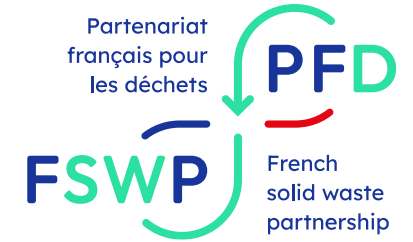
Public Private Partnerships

Financing investments and operations



First public-private partnership in Tunisia to operate the wastewater treatment service for the governorates of Sfax, Gabès, Medenine and Tatouine

- 960.000 residents
- 10 years, financed by World bank (restoration and extension of infrastructure), and by National Authorities (operation and maintenance)



WATER BENEFIT

> 39 millions m³/year thanks to 14 wastewater treatment plants, 106 pumpings stations and 1.900 km of pipelines

CO-BENEFIT

- > Water reuse for agriculture
- > Better protection of aquatic environments





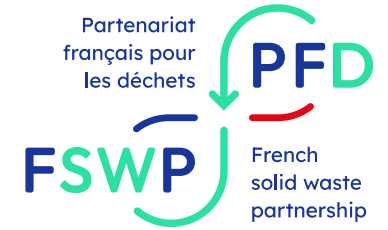
Sound waste management protects water resources.

It relies on ...

Integrated spatial & strategic planning that

- Coordinates action across **scales** and **sectors**;
- Is based on **sound data** and **plans data** acquisition improvements;
- Defines future **investments**, **capacity building**, and **prevention** interventions.

 *Water, wastewater and waste management all need such **integrated spatial & strategic planning**.*



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WASTE FOR ALL SDG

Integrated Planning

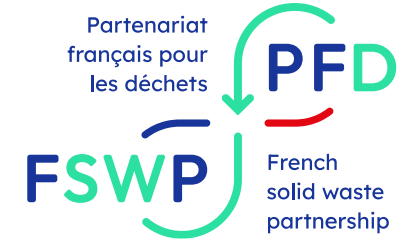


France - Toulouse



Energy Recovery at Toulouse

Integrated planning across waste, energy and water sectors



Tomato production for a competitive price thanks to an innovative concept



- Econotre, operated by SUEZ, uses the heat released by incineration of the waste to produce electricity.
- Low-temperature energy is also recovered to supply heat to greenhouses.
- The necessary proximity was made possible through integrated land planning.

→ [Econotre](#)

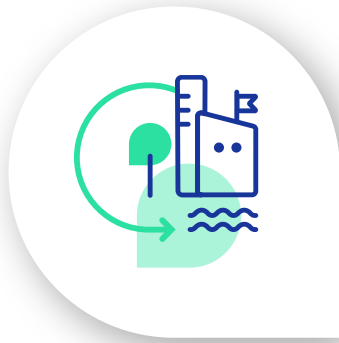
WATER BENEFIT

> Alternative for cooling are explored to address climate change

CO-BENEFIT

- > 2.200 tons of oil equivalent saved
- > 6.000 tons of CO2 avoided/year
- > Food production





WASTE & LAND-USE PLANNING

Integrated Planning



TÜRKIYE- Istanbul



Istanbul Waste-to-Energy Plant

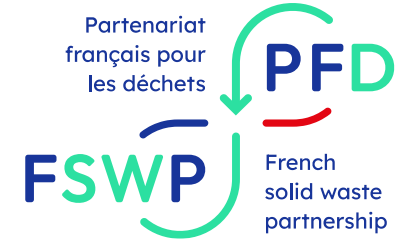
Collaborative partnership to avoid waste landfilling



Treatment capacity of 1.1 M/t waste per year

- Europe's largest waste to energy facility
- Electricity production of 560 000 MWh/year to meet the needs of 1,4 M inhabitants
- Contribution to national carbon neutrality ambition by 2053

➔ Decarbonization: Veolia becomes the operator of Turkey's first waste-to-energy production site



WATER BENEFIT

> Waste prevention and sound management protects water resources

CLIMATE BENEFIT

> 1,4 M/t CO₂eq/y of carbon emissions are reduced through landfill decreasing
> Green electricity production

CO-BENEFIT

> Improved environment for citizens
> Improved energy autonomy





WASTE FOR ALL SDG

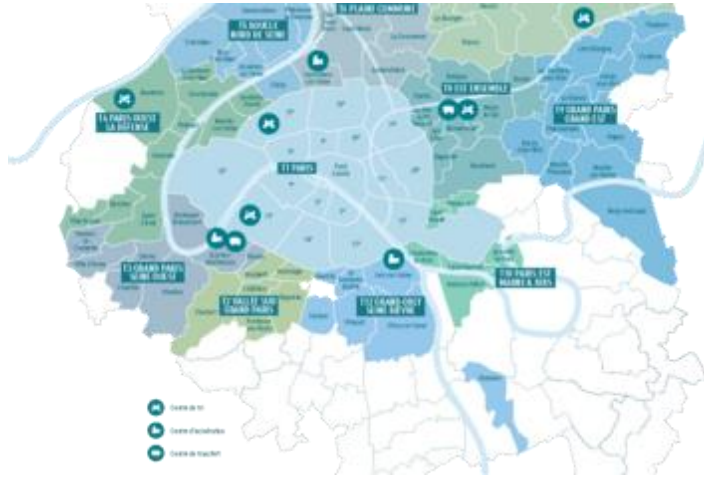
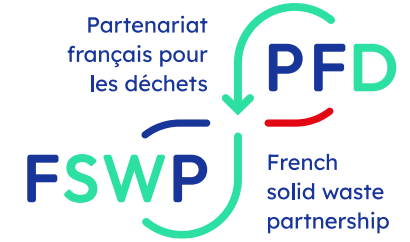
Integrated Planning



France - Paris

Land planning across scales in the greater Paris area

Keeping waste generation and waste treatment capacities in balance



Master-planning at regional and local scale is regularly revisited.

- National strategy guides regional waste targets.
- Syctom bridges the regional targets with local planning through “objectives contracts” adapted to each local context.
- Reducing waste volumes and meeting recycling targets requires integrating economic, social and transport planning.

→ [Syctom's Objective Contracts with its members](#)

WATER BENEFIT

- > Waste prevention and sound management protects water resources

CO-BENEFIT

- > Reducing waste volumes reduces water and other resources use.
- > Air and soil quality protection
- > Waste as a resource benefits industries (recycled materials) and district heating (energy recovery)





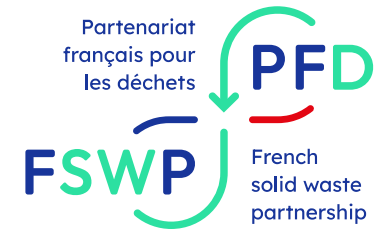
Sound waste management protects water resources.

It relies on ...

Training & research to

- Support the just transition for informal workers;
- Raise skills and capacity levels;
- Boost innovation

 *Water, wastewater and waste management all need such training & research.*



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WASTE FOR ALL SDG

Training & Research

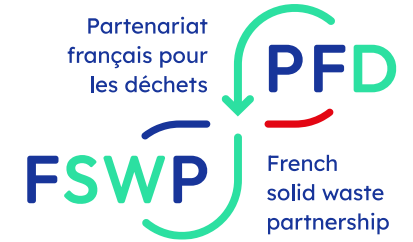


VIỆT NAM - Hà Nội



A women-led informal waste collection system in Hà Nội

Waste collection and recycling in a city overwhelmed by waste



Main highlights of this comprehensive study :



- 20% of urban waste is collected informally, mainly by women
- The informal sector is complex and composed of street collectors, waste deposit managers and recyclers
- Recycling practices are highly polluting, impacting the environment and human health

➔ [Collecter et recycler les déchets à Hà Nội - Acteurs, territoires et matériaux - \(EAN13 : 9782709929660\) | Un éditeur pour le développement \(ird.fr\)](#)

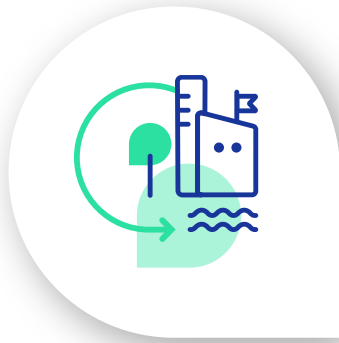
WATER BENEFIT

- Reduce the pollution and emissions by improving the recycling techniques

CO-BENEFIT

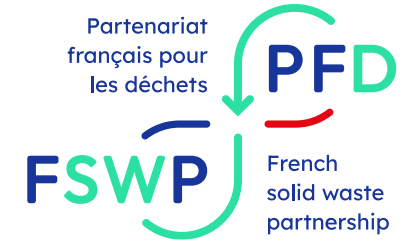
- Baselines for future policy development
- Improve working conditions of women collectors
- Recognize and support the informal recycling system





ALISOTA - Coordinated solid waste and wastewater management

Building local capacities through community involvement



WASTE & LAND-USE
PLANNING

Training & Research



MADAGASCAR -
Antananarivo



GRANDLYON
la métropole

equ
DU GRANDLYON



AFD
AGENCE FRANÇAISE
DE DÉVELOPPEMENT

THE
STONE
FAMILY
FOUNDATION

MAIRIE DE PARIS



A project methodology that builds long term capacities and offers research materials

- Local strategy implemented to collect and treat waste as well as improve access to sanitation
- Valorisation of organic waste and faecal sludge to produce biogas

➔ <https://gret.org/a-madagascar-de-nouvelles-perspectives-pour-la-gestion-des-dechets-urbains/>

WATER BENEFIT

- > Improved access to sanitation
- > Access to hot water in public showers

CO-BENEFIT

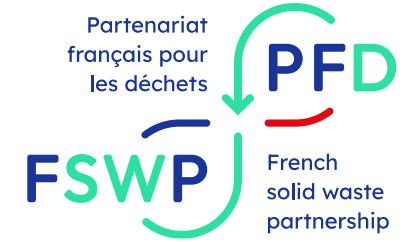
- > Local political leadership





Biofactory – Pau Lescar, France

Project in line with an innovative and proactive environmental policy



WASTE & LAND-USE
PLANNING

Training & Research



FRANCE – Pau



A unique initiative to produce 10 resources (material and energy) from wastewater treatment

- 100 % of CO₂ from sludge methanation is recovered

WATER BENEFIT

> 13.000 MWh of biomethane and synthesis methane produced

CO-BENEFIT

> 5.000 tons of CO₂ emissions avoided each year

→ [Pau-Lescar biofactory](#)





WASTE FOR ALL SDG

Training & Research



FRANCE – Paris



CoMétha Pyrogazification Project

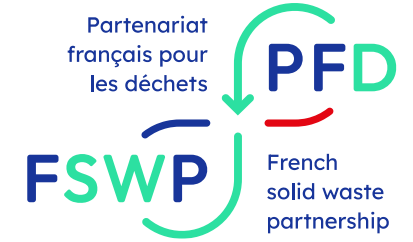
A disruptive technology opposing organic waste & sludge incineration and complementary to methanization



From R&D to a full-scale pilot

- Treat a mix of organic waste, including food waste and sewage sludge
- Maximize the transformation of organic matter into syngas
- Minimize the volume of solid residues (ashes)
- Recover nutrients (nitrogen and phosphorus)

➔ [Cométha \(cometha.fr\)](http://cometha.fr)



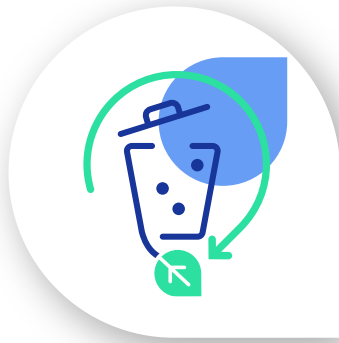
WATER BENEFIT

- > Innovative solution for sewage sludge
- > Water and nutrient recovered

CO-BENEFIT

- > Synergies between organic waste producers
- > New type of contracting models to support innovation
- > Nutrient recovery





WASTE & POLLUTION

Training & Research



IVORY COAST - Abidjan



JEAI PADI - Plastics in Abidjan: Future and impacts

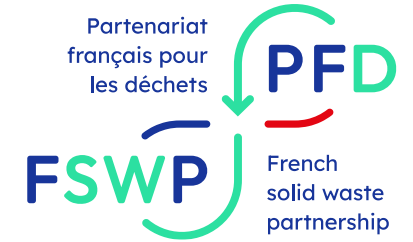
Establishing scientific knowledge on plastics in aquatic environments



Tracing back to the cause of macro- and micro- plastic pollution to support decision makers:

- Research results on lagoon and coastal ecosystems affected by plastic pollution are shared with local stakeholders for their awareness
- Results are translated into recommendations of operational decision

➔ <https://www.ird.fr/jeai-padi-plastiques-dabidjan-devenirs-et-impacts>



WATER BENEFIT

- > Understanding the impacts of plastics
- > Encourage decision-makers to tackle the sources of plastic pollution

CO-BENEFIT

- > Essential component for sustainable development of African cities





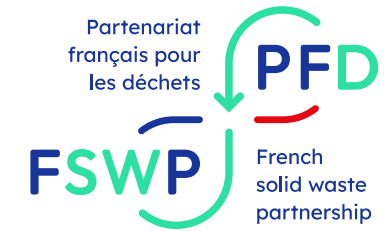
Sound waste management protects
water resources.

It relies on ...

Education & communication that

- Raise awareness through **local communication** supported by **national and international campaigns**;
- Contribute to **behaviour changes**;
- Engage **citizens and communities** in taking **action**;
- Increase trust through **evidence-based information**.

 *Water, wastewater and waste management
all need such **education & communication**.*



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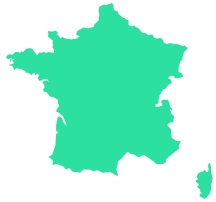
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WASTE FOR ALL SDG

Education &
Communication

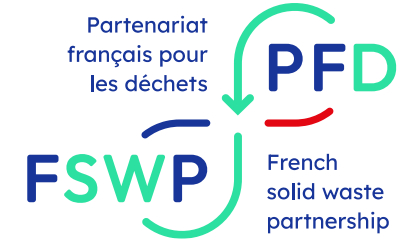


FRANCE



The “non-vendor” campaign

A national advertisement campaign to save our resources



“Do you really need it?”

- 4 shorts humoristic videos to encourage people to **ask themselves the right questions before buying**.
- Promoting responsible consumption solutions such as rental, repair and second-hand purchases.

➔ <https://epargnonsnosressources.gouv.fr/actualites/nouvelle-campagne-communication/>

WATER BENEFIT

- > Reducing waste generation reduces industrial water consumption and wastewater

CO-BENEFIT

- > Promote sustainable consumption and circular economy
- > Less demand means less production means less waste generated
- > Reducing the use of all resources





WASTE FOR ALL SDG

Education &
Communication



FRANCE - Paris



Open-data on operations

Building trust through public access to environmental and financial data



Données financières



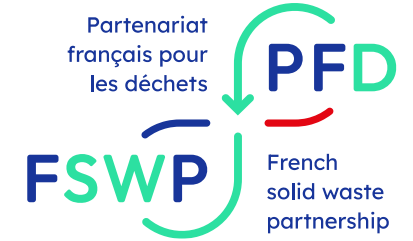
Données environnementales

ACCÈS DIRECT

Open-access to financial and environmental data on solid waste management activities ensures transparency.

- Publishing data on the environmental impact of facilities is a regulatory requirement for all industrial installations.
- By publishing data in open data format, the open access principle can be respected.

→ [Open Data - Sycotom \(sycotom-paris.fr\)](https://sycotom-paris.fr)



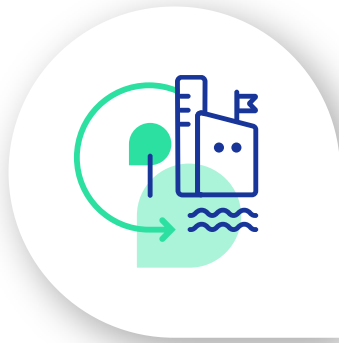
WATER BENEFIT

> Synergies between waste and water services in the communication to citizens

CO-BENEFIT

> Cooperation between local and national services
> Building trust





WASTE & LAND-USE PLANNING

Education & Communication



Republic of CONGO -
Novai



Civil society, wastewater and solid waste

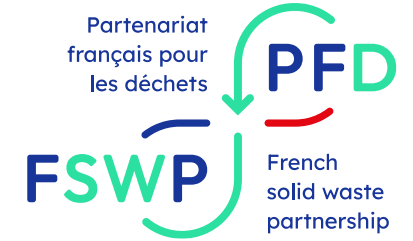
Community involvement to build resilience



Involving women and youth in local governance for wastewater and solid waste improvements

- Improving the sanitation installations for 3,000 households and 20 schools.
- Solid waste management services providing:
 - Collection: 90 T/month
 - Engineered landfill disposal: 80 T/month
 - Waste reused & recycled : 10 T/month

➔ <https://gret.org/projet/villes-resilientes-societe-civile-eaux-usees-et-dechets/>



WATER BENEFIT

> 79% of households with access to improved sanitation

CO-BENEFIT

> Strengthened capacities in civil society participation and inclusivity of women and youth
> Living conditions improved for all 110 000 inhabitants of Nkayi et

