



HAMON, GRÉGOIRE

International Project Manager



TREATMENT AND RECOVERY OF HAZARDOUS WASTE MANAGEMENT

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Séché Environnement

Trédi group subsidiary



SECHE KEY FIGURES



5000
employees
including 2300 in
France



736 M€
of
contributive
sales in
2021



15
countries
and 28% of
international
sales



2/3
Of sales in
hazardous waste



1/3 in common
waste

85 %
of sales with
industrial
clients



15%
In the public sector

Site Locations and on-going or past contracts



Global Management Solution

for hazardous waste Disposal

- **Clients** : Supranational organizations, local government (Ministers), Worldwide industries,...
- Transportation plan, Basel Convention
 - > Collected and handled on site
 - > Re-packed (UN certified packaging)
 - > transported / shipped to our TRÉDI facilities in France
 - Notification, transport paperwork, Basel Convention
 - > Disposed in specific treatment channel regarding waste' characteristics.

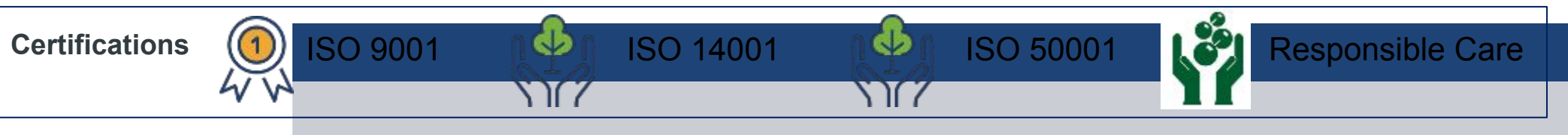
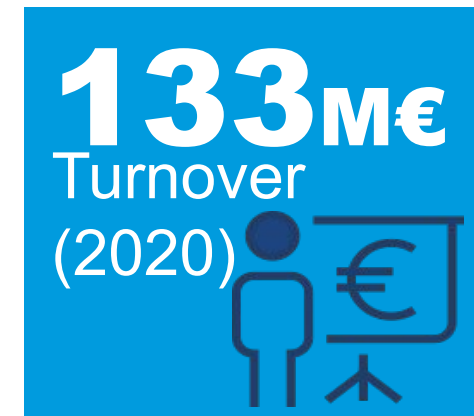
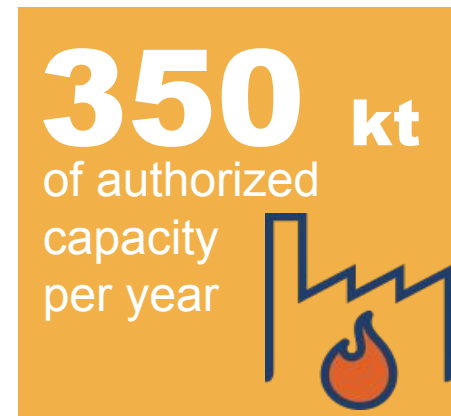
International Projects :

- Bangladesh (2022) □ 550 t Pesticides - HCH
- Macedonia (2022) □ 750 t Pesticides
- Ukraine (2018-2020) □ 10 000 t Pesticides
- Bulgaria (2018-2020) □ 3500 t Pesticides
- Egypt (2018) □ 650 t Pesticides
- Turkey (2018) □ 730 t Pesticides
- Belize (2018) □ 35 t Pesticides
- Belarus (2015) □ 310 t Pesticides



Trédi, a major player in the treatment and recovery of industrial hazardous waste

- Trédi, a 100% subsidiary of the Séché Environnement group since 2002
- A reference in the management and treatment of hazardous industrial waste
- Wide range of waste acceptance: liquid, solid, pasty, gaseous waste
- 2 main incinerators : Trédi Salaise and Trédi Saint-Vulbas





TREDI Salaise : Pesticides



TREDI Saint-Vulbas : HCH & other POP

Trédi Salaise : Pesticides



Recovery of hazardous waste

- 1 grid kiln & 3 rotary kilns
- Capacity : 294 000 T / year
- 18 treatment channels for solid, liquid and gas
- 120 000 t of CO²/year avoided
- Energy Recovery from overheated steam
produced ~ 480 GWh / year



Adapted treatment of all type of pesticides

- Treatment processes adapted to all type of pesticides regardless of their volume or packaging.
- Samples are analyzed.
- Appropriate destruction of the contents: wastes are extracted and burned in approved plants in the kiln (T° 850-1100°C).
- Specific channels in Salaise 2 are reserved for toxic, smelly, powdery, reactive and highly flammable oxidizing wastes,...

Trédi Salaise

- **Salaise 1 :**
 - **2 rotary kilns / low halogenated** hazardous industrial waste (**CI < 1%**) and low sulphur (**S < 4%**).
 - Treatment capacity 74 000 t / year
- **Salaise 2 :**
 - **1 rotary kiln / halogenated** hazardous industrial waste (**CI > 1%**) and sulphur (**S > 4%**).
 - Treatment capacity 74 000 t / year
- **Salaise 3 :**
 - **1 grid kiln / industrial hazardous solid waste** with low halogenated concentration (**< 1% CI**) and low sulphur (**< 4% S**).
 - Treatment capacity 146 000 t / year
- **Salaise 4 :**
 - Management and **reconditioning** of waste generated in small quantities.
 - Treatment capacity 6 000 t / year



Trédi Saint-Vulbas : HCH & other POPs



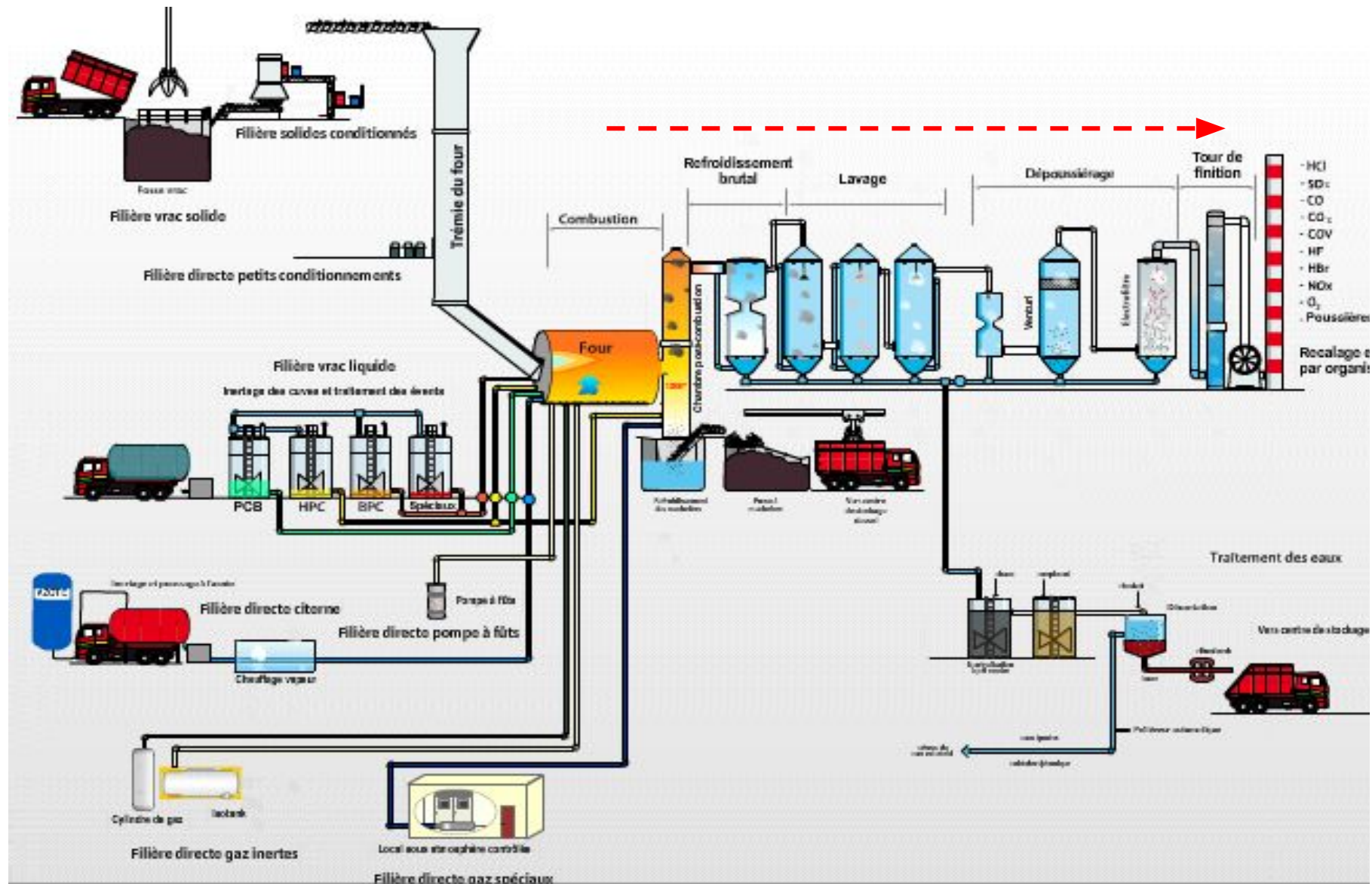
Recovery of hazardous waste

- 1 static kiln & 1 rotary kiln
- Capacity : 50 000 T / year
- 9 treatment channels for solid, liquid
+ 1 dedicated gas department
- **Added value : high percentage of chlorine, sulfur, and bromine treated**
- **Regeneration of brominated brines**



Adapted treatment of specific waste

- Waste and environmental analysis before acceptance.
- Treatment processes adapted to specific type of waste : HCH, PCB, Brominated brines, highly chlorinated / sulphurous, and other type of POPs and gas.
- Hazardous wastes are extracted and burned in approved plants in the kiln ($T^{\circ} > 1200^{\circ}\text{C}$).
- Detoxification of tanks/drums by cremation or rinsing.



Thank you for your attention

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