



## PART 2

# DEVELOPING A SHARED SOLUTION FOR HAZARDOUS WASTE RECOVERY AND GREEN ENERGY SUPPLY



## THE SITUATION IN THE VALLÉE

As its main energy hub, the Vallée de la Chimie produces half of Lyon Metropole's renewable (hydraulic and photo electricity, etc.) and recovered energy (energy generated during waste incineration). Its energy-intensive industrial sites and location close to metropolitan heating grids also make it a strategic crossroads.

So it is only natural that the Vallée aims to become the Lyon Metropole's Energy Factory, i.e. a place for experimentation and production of the green energies of tomorrow.

With this ambition, the Valley is now experiencing a real dynamic in terms of ideas, initiatives and public and private projects in various energy-related fields, but also in connection with energy recovery from waste.

In this context, Lyon Metropole started the Valden project in 2017, together with the industrials in the Vallée that signed the Partnership Charter. This project aims to better understand and share a common vision of the industrial, private and public ecosystem, and its current functioning in the fields of:

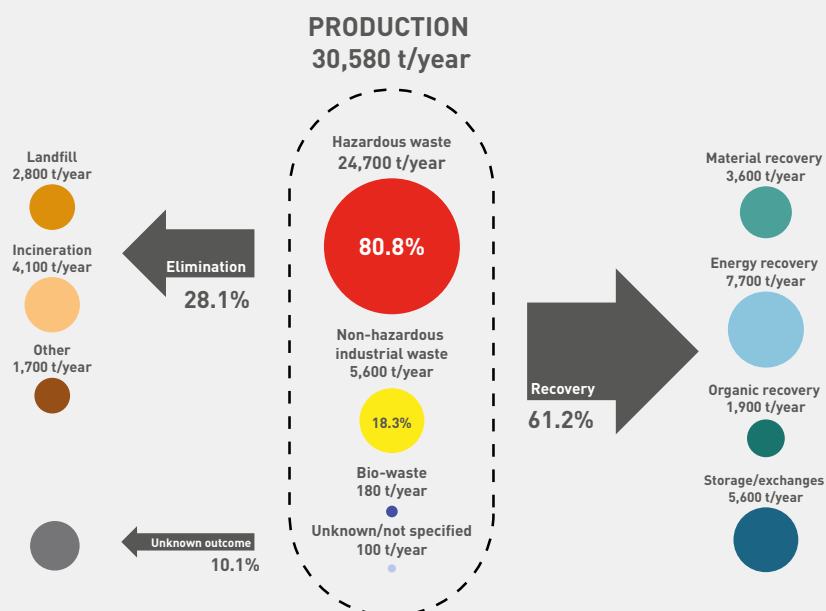
- > energy supply and production,
- > production, collection, treatment, and recovery of waste.

From an industrial ecology standpoint, the Valden project wanted to focus on possibilities of pooling/value creation between industrials and interactions pertaining to strategic reflections and projects led by Lyon Metropole, in order to feed the energy master plan.

## VALDEN'S DIAGNOSIS LED TO THE EMERGENCE OF SEVERAL KEY POINTS:

- > The total amount of hazardous waste produced in the Vallée is over 24,700 tons/year.
- > Most of this waste is recovered outside the Vallée, even outside the Auvergne-Rhône-Alpes region.
- > There are few industrial waste treatment facilities in the Vallée.
- > The nature of some waste does not allow it to be recovered energetically, so it is incinerated. In some cases, waste-to-energy would be a possibility, but is not done.
- > Some industrials in the Vallée are keen to pool the collection and treatment of specific waste and wish to benefit from a shared and local hazardous waste recovery solution.

## HAZARDOUS WASTE: DEPOSITS THAT CAN BE RECOVERED WITHIN THE VALLÉE DE LA CHIMIE



Data accuracy subject to information received from industrials.



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## CORE PROJECTS OF THE METROPOLITAN STRATEGY

Lyon Metropole wishes to develop a local and **shared solution for the recovery and treatment of hazardous waste**, in order to meet the needs of Vallée industrials producing this type of waste.

Even though the location has not been exactly defined, Lyon Metropole is committed to providing support to the selected project initiators in the Appel des 30! 2018 edition, in deploying this system, in partnership with industrials and public players, throughout the territory, with a catchment area that may even go beyond the Vallée de la Chimie limits.

Lyon Metropole is also encouraging innovative energy recovery of this hazardous waste, in order to feed a shared low-carbon energy grid that would need to be created and deployed in the Vallée. The Valden project has already highlighted the interest of industrials in using a shared feeder network for renewable energy supply (RES).

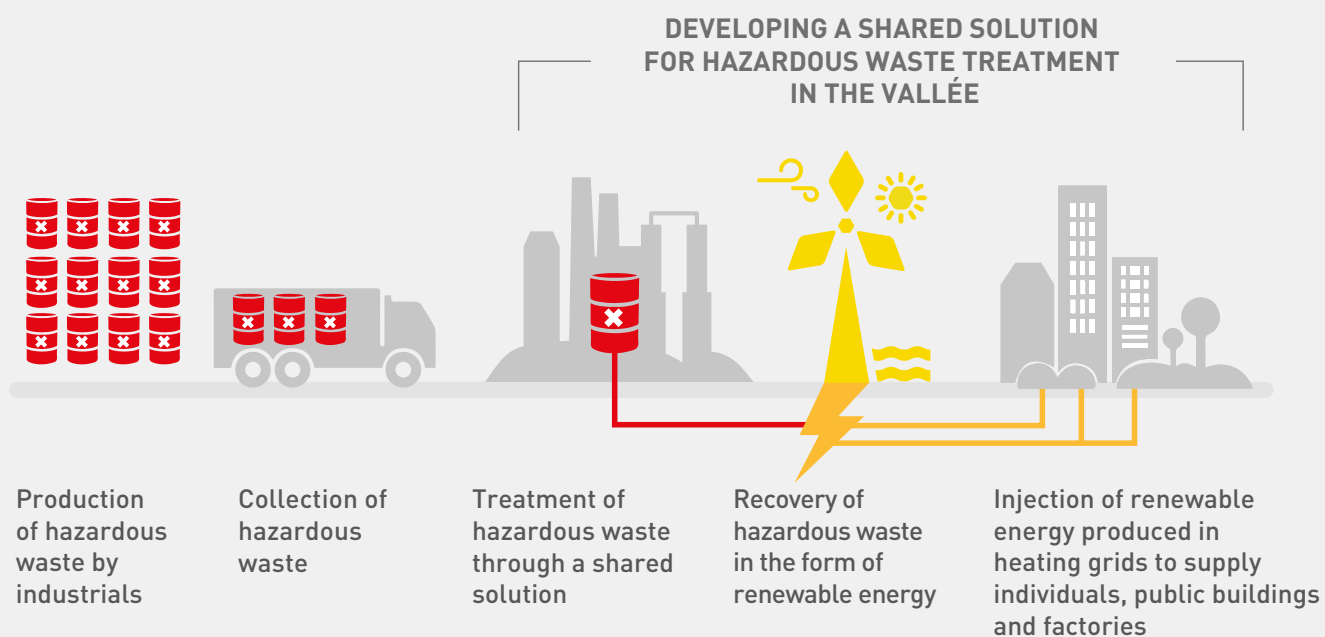
This energy grid could:

- > be an alternative or a complement to the Vallée's ageing steam network and supply industrials with renewable energies,
- > be connected to the nearby district heating networks as to also supply the inhabitants of Lyon Metropole,
- > use innovative solutions, such as waste heat recovery, heat storage and block chain technology.

This energy grid, a major, strategic and prospective topic in the Vallée de la Chimie, is also part of the "Territoire d'Innovation de Grande Ambition" (TIGA - Innovation Territories of Great Ambition).

Call for Expression of Interest, initiated by Caisse des Dépôts, which was won by Lyon Metropole in early 2018 on the theme of an industry that is integrated with and reconnected to its territory and its inhabitants.

## DEVELOPING A SHARED SOLUTION FOR HAZARDOUS WASTE TREATMENT IN THE VALLÉE



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