

Edaphos

Soil and waste engineering

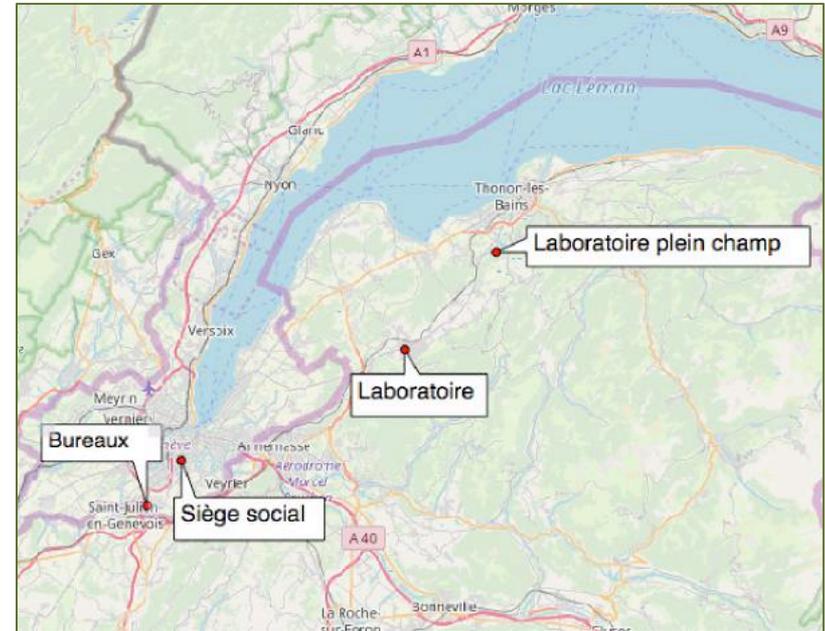


EDAPHOS

*Innovations techniques*

# Edaphos

- Environmental engineering
- Based in Geneva and Haute-Savoie. (Offices in Geneva, laboratory in France).



Microbiological and biomimetic approach to find new ways of recovery / depollution of waste.

Advanced research in soil remediation by mycoremediation.

# Management of polluted soils in French-speaking Switzerland and Geneva

In the Geneva basin: almost universal pollution (with regard to OLED - OSOL thresholds).

## Vision of the environmental engineer:

Pollution measurement scale = discharge level. (A; B; E;> E)

It is difficult to reuse weakly polluted materials

There are few remediation options on the market

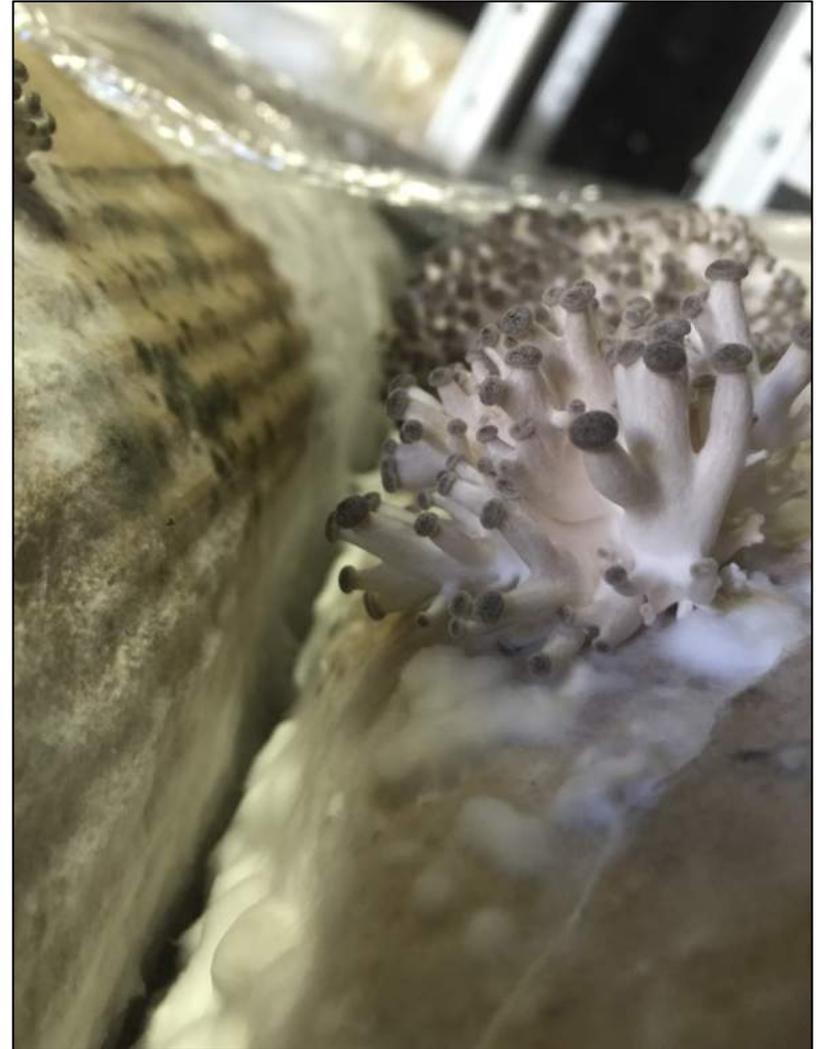
The valuation of polluted soil is complex and expensive



# An R&D approach : mycoremediation

Use of fungal processes in soil remediation.

Degradation (organic pollutants) /  
Biosorption (ETM).



# A successful pilot: Smartseille project

Soil remediation of an old gas factory site for the realization of an eco-district in Marseille (100to)



Experimentation of different methods.

Very good results on organic pollutants after 3 months.

Best results on PAHs.

(Up to 97% abatement rate)

 **EIFFAGE**



# Benefits and limitations

## Benefits

- 1 / Speed (compared to other methods)
- 2 / Effectiveness (spectrum of pollutants)
- 3 / Environmental performance
- 4 / Cost
- 5 / Fields of action (water, sludge ...)



## Limitations

- 1 / Technology still poorly mastered
- 2 / Spatial and temporal constraints
- 3 / Development in real conditions is difficult and expensive
- 4 / Environmental externalities to date (increases the rate of organic matter in the soil)

# Next steps in development

1 / Realization of large pilot projects (TRL 6/7)

2 / Experiments in Switzerland and France on polluted soils and other wastes. (Integration of the approach in each regulatory context)

3 / Objective of marketing : 2021



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