

INERTWASTE

Euroméditerranée circular economy initiatives

Brice CHANDON

Euroméditerranée public development authority EPAEM brice.chandon@euromediterranee.fr



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480 hectares

The Euroméditerranée public development authority (EPA) designs, develops and builds the sustainable Mediterranean city of tomorrow at the heart of the Aix-Marseille-Provence metropolitan area.



1. Materials from deconstruction

PRINCIPLE

- Crushing of concrete for use as backfill
- Reuse of building materials Sawing of paving stones

SPECIAL INTEREST

Can sometimes be used to improve quality at lower cost (Marseilles cobblestones, rubble)

LIMITATIONS

Complex coordination when demolition is synchronised with the receiving operation Land for storage and risks to be taken when timeframes are different



11,000T of recycled concrete to date

Steps taken with :



RAEDIFICARE

e gis

2. Recycling polluted soil

PRINCIPLE

On-site treatment of hydrocarbon-polluted soil

SPECIAL INTEREST

Strong financial interest: makes a comprehensive approach profitable.

LIMITATIONS

The treatment does not render the materials inert, so they need to be re-used on the project.

Successive installation of several bioters: installation costs are not optimised in the absence of long-term mobilisation of land.





3. Creation of fertile land

PRINCIPLE

Recover silt from excavations and enrich it with high-quality natural soil and compost.

SPECIAL INTEREST

Avoid drawing on natural resourcesGuaranteeing the quality of fertile soilGiving meaning to 'zero net artificial development'.

LIMITATIONS

Complex process to be 'invented' in the area First project underway with 1000 m3 of fertile land created

Experimental protocol implemented in partnership with the CNRS(French National Centre for Scientific Research)

Steps taken with : ilex



Towards an industrialised approach

Study with :

SLIDE 6



• Carrying out an urban metabolism study

On the OIN (OPERATION OF NATIONAL INTEREST) perimeter, extended to the operational sectors bordering the Metropolis

- Better understanding of the area's resources and the project's needs
- Discussions with sectors, setting up structuring partnerships
 - Better understanding of flows
 - Organising new channels and new circular economy loops
- Consideration of setting up a materials management platform
 - Mobilisation of EPAEM land for the storage of materials.
 - Prioritisation of the most attractive circular economy loops in financial, environmental and spaceuse terms in order to optimise the land available for them.





EPAEM circular economy roadmap

- 1. Contributing to the emergence of local governance of re-use
- 2. Defining project circularity indicators
- 3. Raising awareness and training operational teams
- 4. Modify and improve specifications for public spaces
- 5. Modifying and improving building quality guidelines
- 6. Developing pilot projects
- 7. Develop a re-use platform

Study with :

SLIDE 7





The Aygalades Park



The Aygalades Park

16 hectares

Ecological restoration of a largely canalized watercourse

Creating 80,000 m3 of good topsoil to provide the expected ecosystem services

Biodiversity

Carbon storage

Integrated stormwater management

Public uses

Remediation



A long-term approach to development

With planning professionals - the time for the circular economy

With residents - the time for co-design

With researchers - the time for scientific discovery



SLIDE 8



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SLIDE 9

The FrichEco research project - team



SLIDE 10



- ✓ 5 years of research (2022-2026)
- ✓ 877,405€ including 397,106€ in Ademe funding
- ✓ A multidisciplinary team combining fundamental research, R&D, action research and operational projects



Neo Eco

Circular economy expert - project leader

EPAEM



Developer - bridging the gap between scientific and urban projects, bringing together local players



Université Aix Marseille

Soil investigation and definition of the experimental site



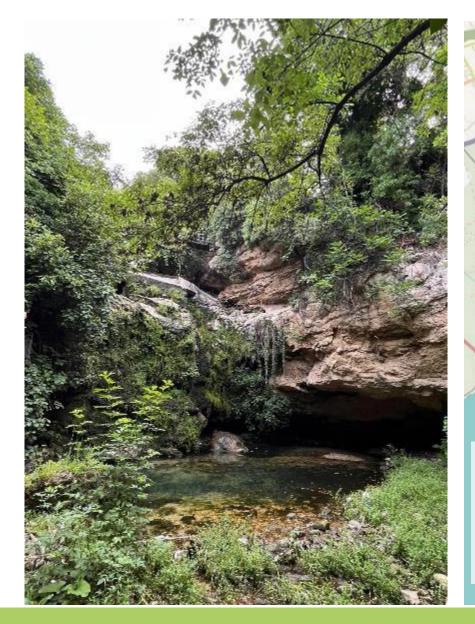
BRGM Bureau de recherche géologique et minière

Soil characterisation and material passports

The FrichEco research project - scales



SLIDE 11



The Aygalades park, a pilot project in the strategy to rehabilitate the river

SEPTÈMES-LES-VALLONS

ES PENNES-MIRABEAU

Applex, a resonance with national and European issues: the soil monitoring directive FrichEco, a first step towards organising the area around the implementation of sustainable nature in the city

> Co-funded by the European Uni