

SEDIGATE

SEDiments
Gestion A TERre



The dynamic NEMEAU® 450 Decanteur
And
Sediment recovery

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CONTEXT

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SITES

METHODOLOGY

VALORIZATION

The operations of
dredging :
55 million m³

French regulation

Offshore
rejection

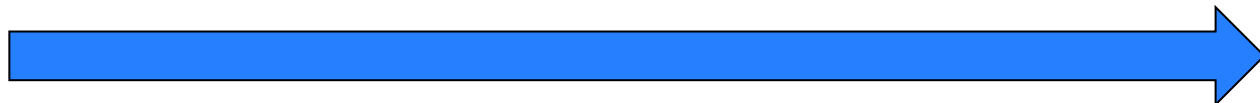
Management
of ground
5 million m³



Dredging

Dewatering

Valorization



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Materials out of the machine:

- ✓ Recoverable
- ✓ Immediate treatment
- ✓ Reduced volume
- ✓ Transportable
- ✓ “Pelletable”

NEMEAU®: Optimization of valorization and elimination

- ✓ Absence or reduction of decantation basin
- ✓ Reduced volume storage area or deposit in discharge



Economic and time savings for port managers

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Technical parameters

Technical parameters	Values
Debit entry	500 m ³ /h
Debit exit	50 – 60 m ³ /h
Solid / liquid separation	A sediment or waste volume for 9 volumes of water
Dryness (Siccité)	Between 40 - 50 (%)
Turbidity (water clean)	< 100 mg/L

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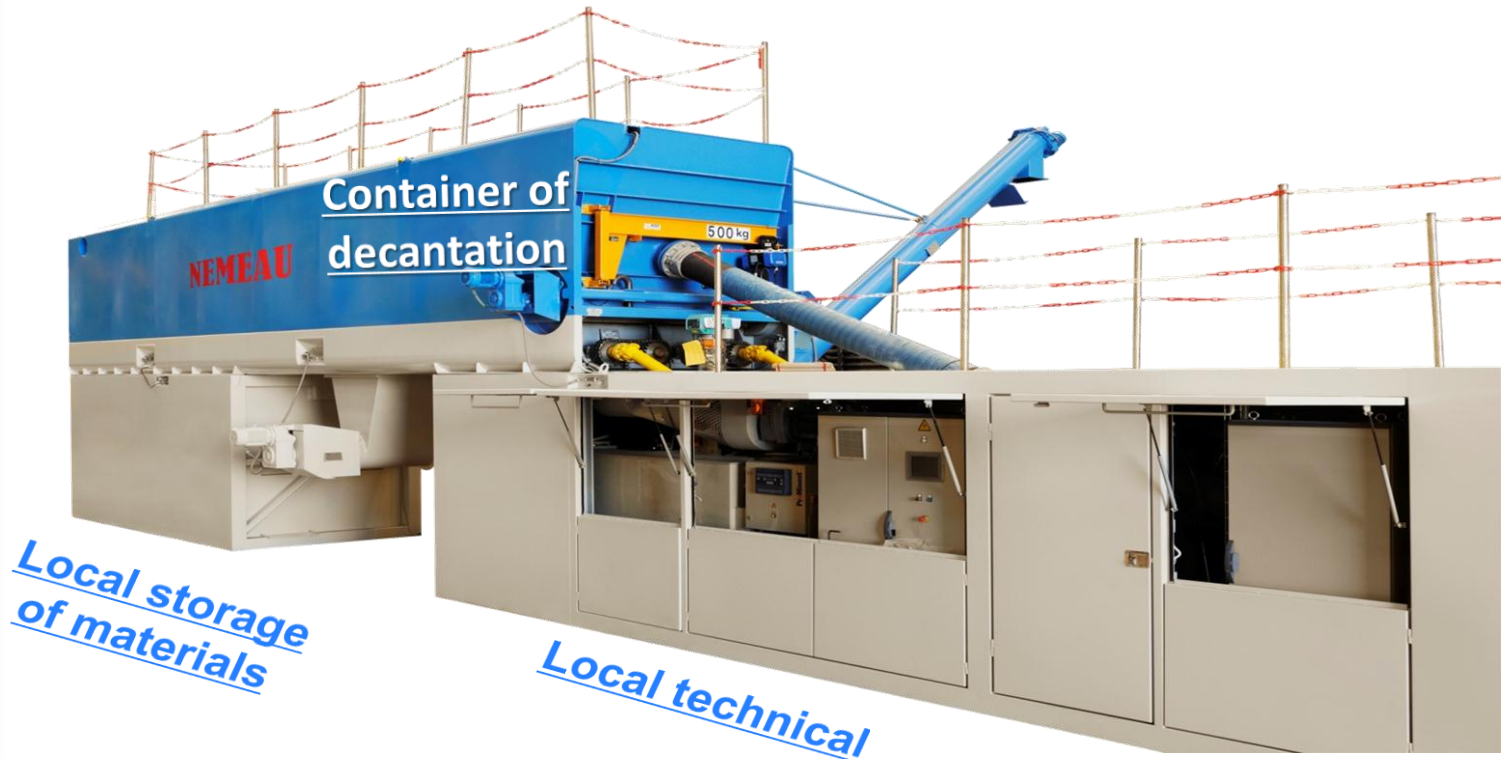
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Hypermobility :

3 containers to road and rail gauges



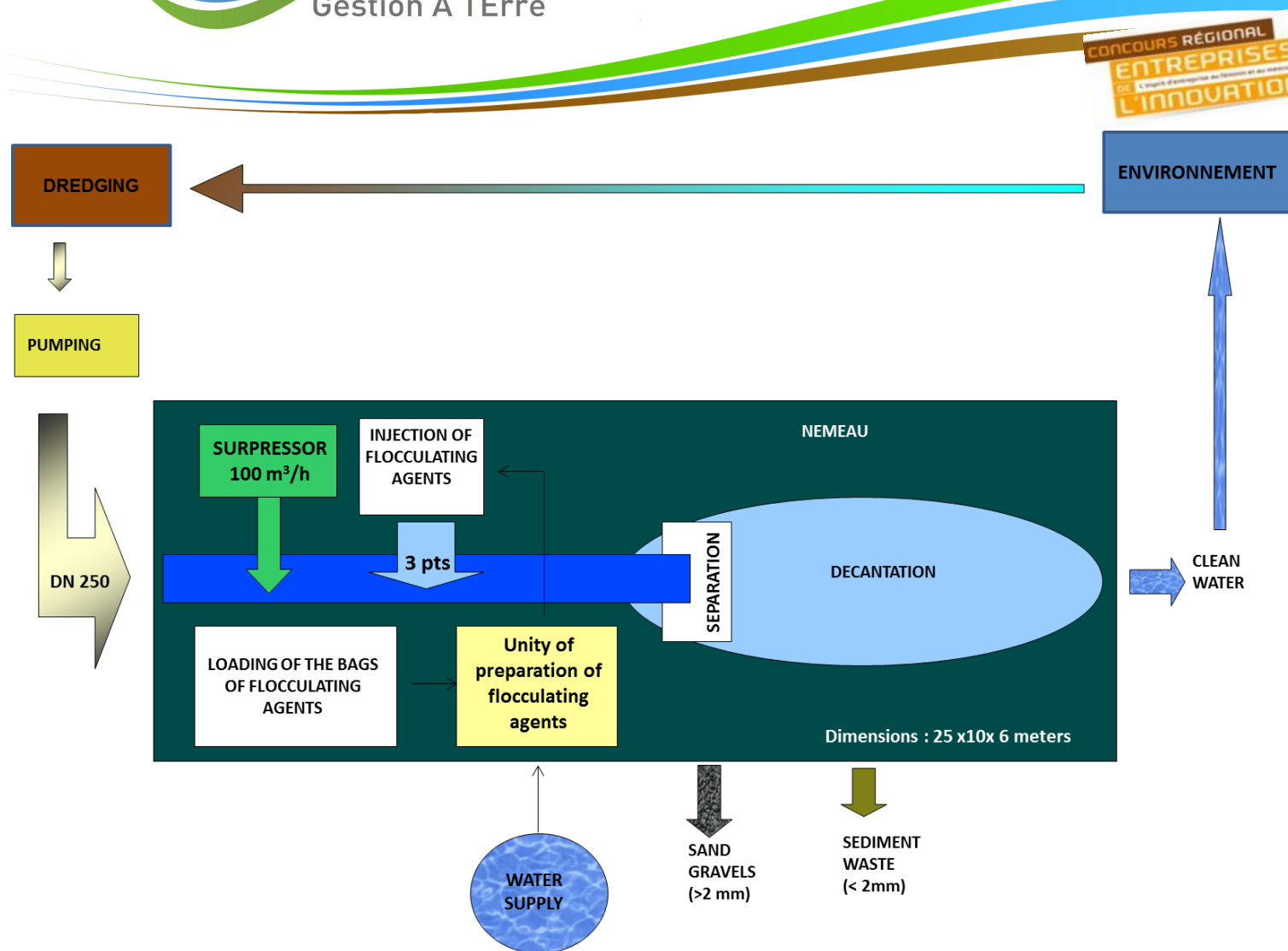
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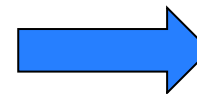
VALORIZATION

Dredging of the port of Dieppe

Objectives : 3500 m³ of dredging in the fishing port



Dredging



Basin of storage



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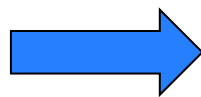
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Dredging of the port of Dieppe

Objectives : 3500 m³ of dredging in the fishing port



Dewatering
(NEMEAU®)



Discharge from
class 2

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Physical-chemical characterization of sediment

Comparison with levels of 09/08/2006 and 23/12/2009

Inorganic compounds	Pollution
Cd	N1 < < N2
PCB	
Cu	>N2
Hg	
Pb	
Zn	



Managment on
ground

Comparison with Annex II of Directive 1999/31/CE

Leaching compounds	Pollution
FS	> Levels
HAP	
Mo	
Se	



Dangerous wastes,
Discharge from class 2

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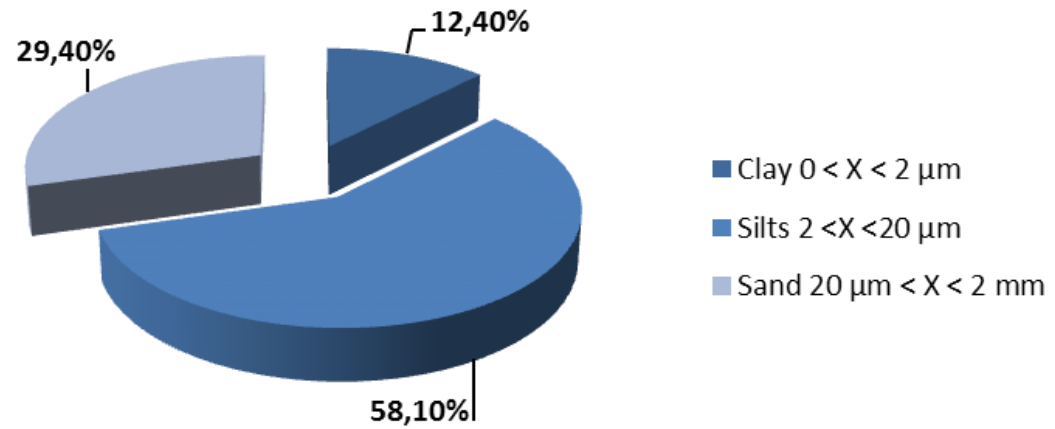
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Grain size



Organic matter : 7 %

Test of decantation :

- ✓ Flow inside
- ✓ Concentration of the flocculating agent

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Muds at exit :

Dryness (45 %)

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Others major building sites

Place	Objectives	Dryness (%)	MES (mg/l)
Sites of deposits (Rouen)	Dewatering Of sediments	43	80 - 90
Quarry from Vignats	Dewatering of fines	49	50 - 90

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Others major building sites : Quarry of vignats



Water clean

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According to the applications, various analysis

❖ Geotechnics characterizations :

- ✓ Proctor test,
- ✓ Water content initial,
- ✓ Granulometry,
- ✓ Organic Matter,
- ✓ Atterberg limits.

❖ Mechanical characterizations :

- ✓ Compressive strength simple and traction tests,
- ✓ Durability (freezing-thawing, damping – drying...) .

❖ Formulations :

- ✓ Technical, ecological and economic factors.

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CONCOURS RÉGIONAL
ENTREPRISES
DE L'ÉCO-INNOVATION

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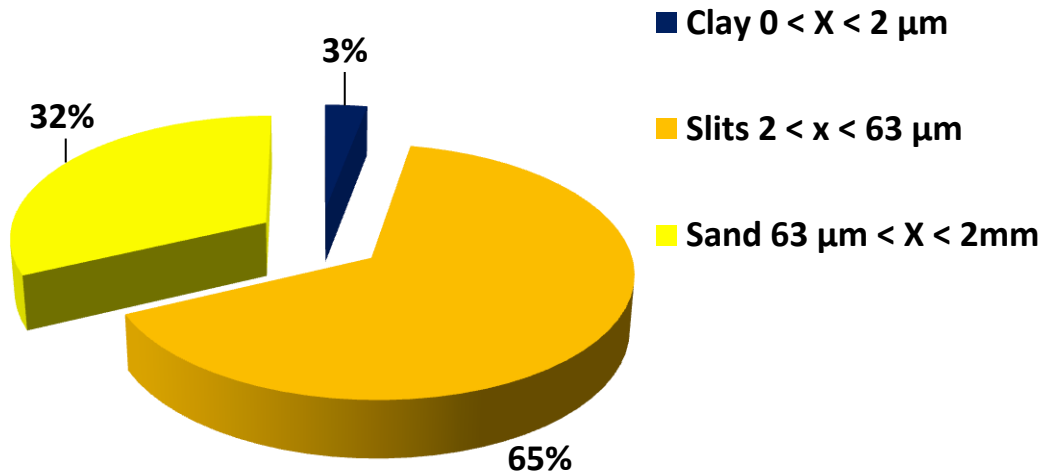
Geotechnics characteristion :

Water content initial : 261 %

Organic Matter : 15 %

Atterberg limits : I_p : 59

Granulometry :



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Requirement of specifications

Formulations with cement 20%

Formulations

References	Pouzzolanic binder (%)	Hydraulic binder (%)	CaO (%)	
Formulation 1	10	-	4	5
Formulation 2	8	2	4	5
Formulation 3	7	3	4	5
Basic formulation	-	20	-	-

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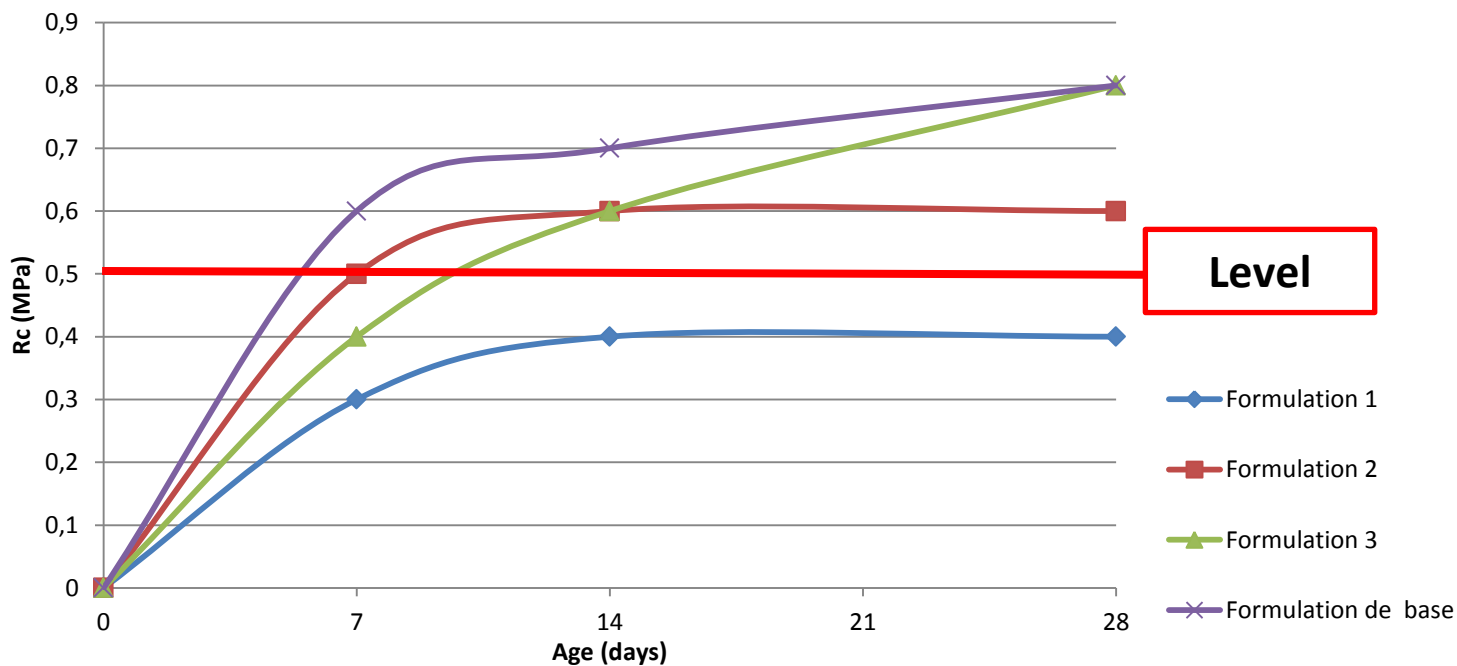
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Compressive strength



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CONTEXT

Port 2000, Le Havre, 800 000 m³ of sediments developed in platform

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Before building site



End of building site

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« Tange » from Mont Saint Michel (70 000 m³)

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Real solutions

For the future our ports

Thank you for your attention

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