

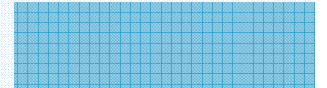


# Waste Framework Directive

2008/98

Dredging Perspective on

Hierarchy Evolution





## Definition in WFD

-“Waste” – means any substance or object which the holder discards or is required to discard.-

Definition has not changed!



# Hierarchy - old

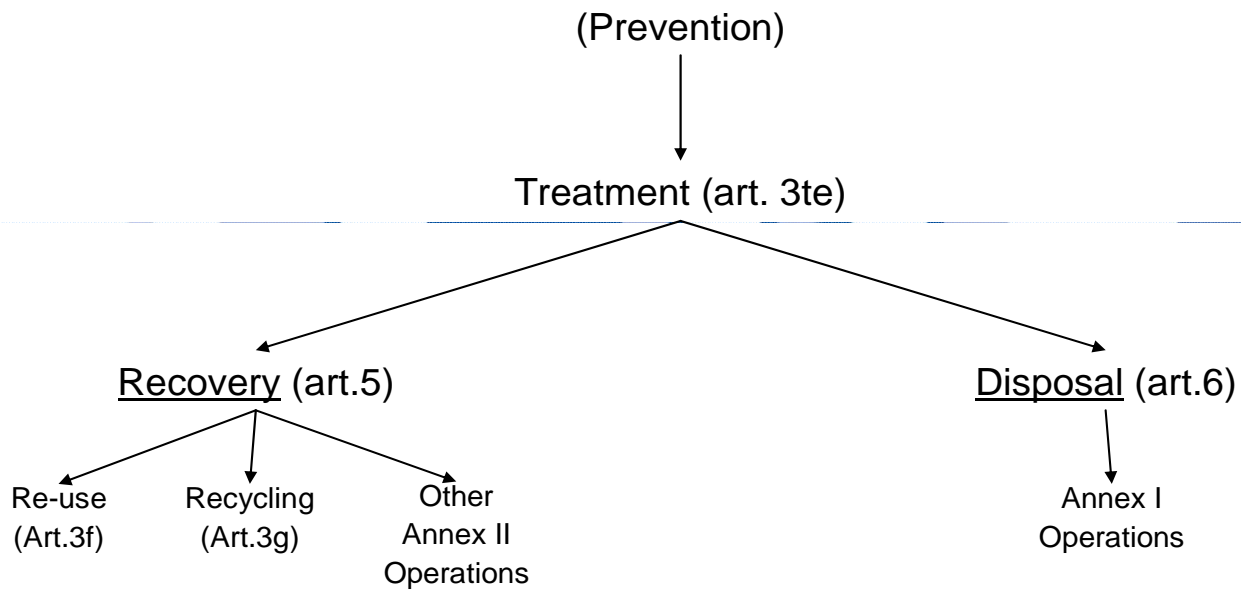
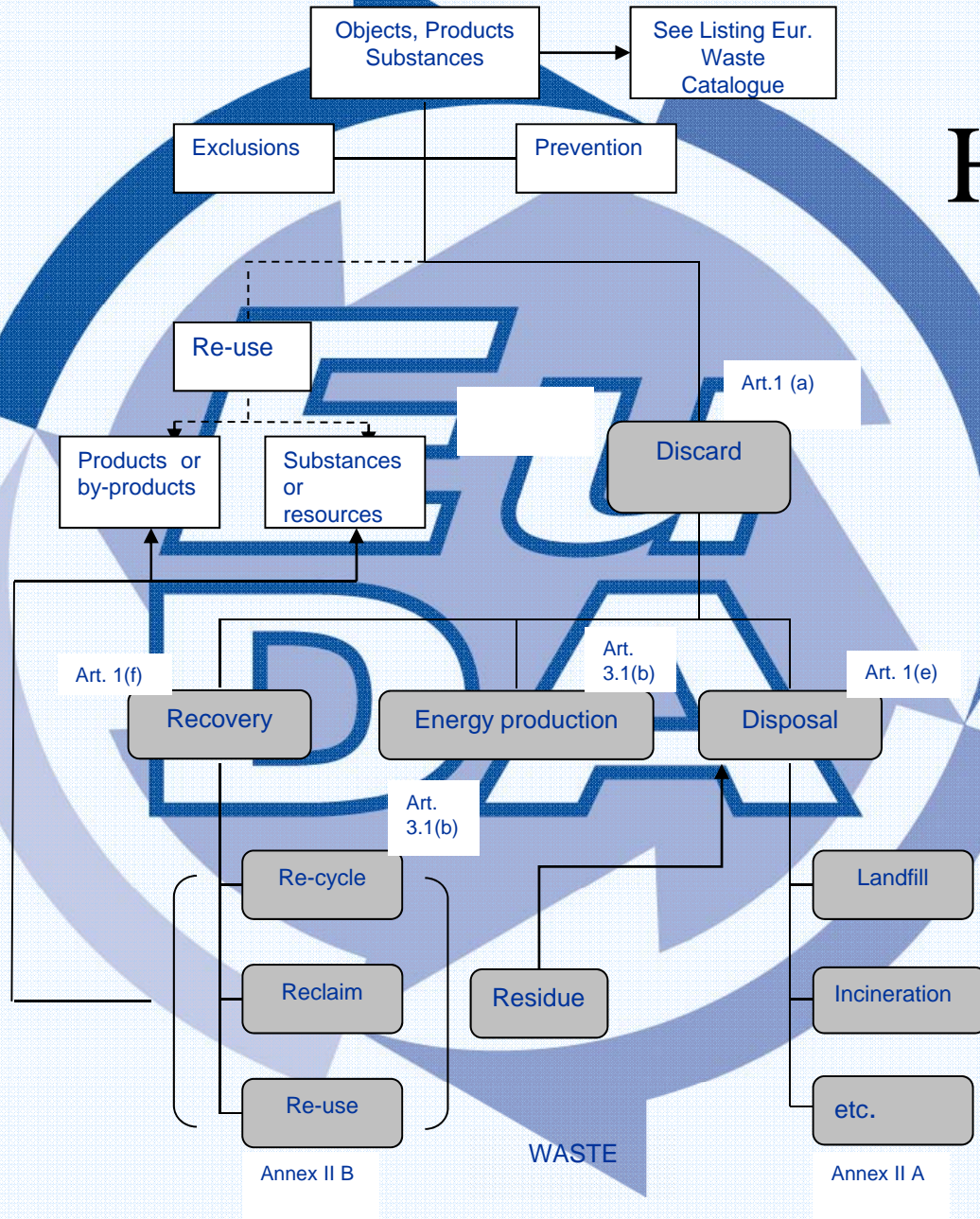


Fig.2: EU Waste Management Hierarchy

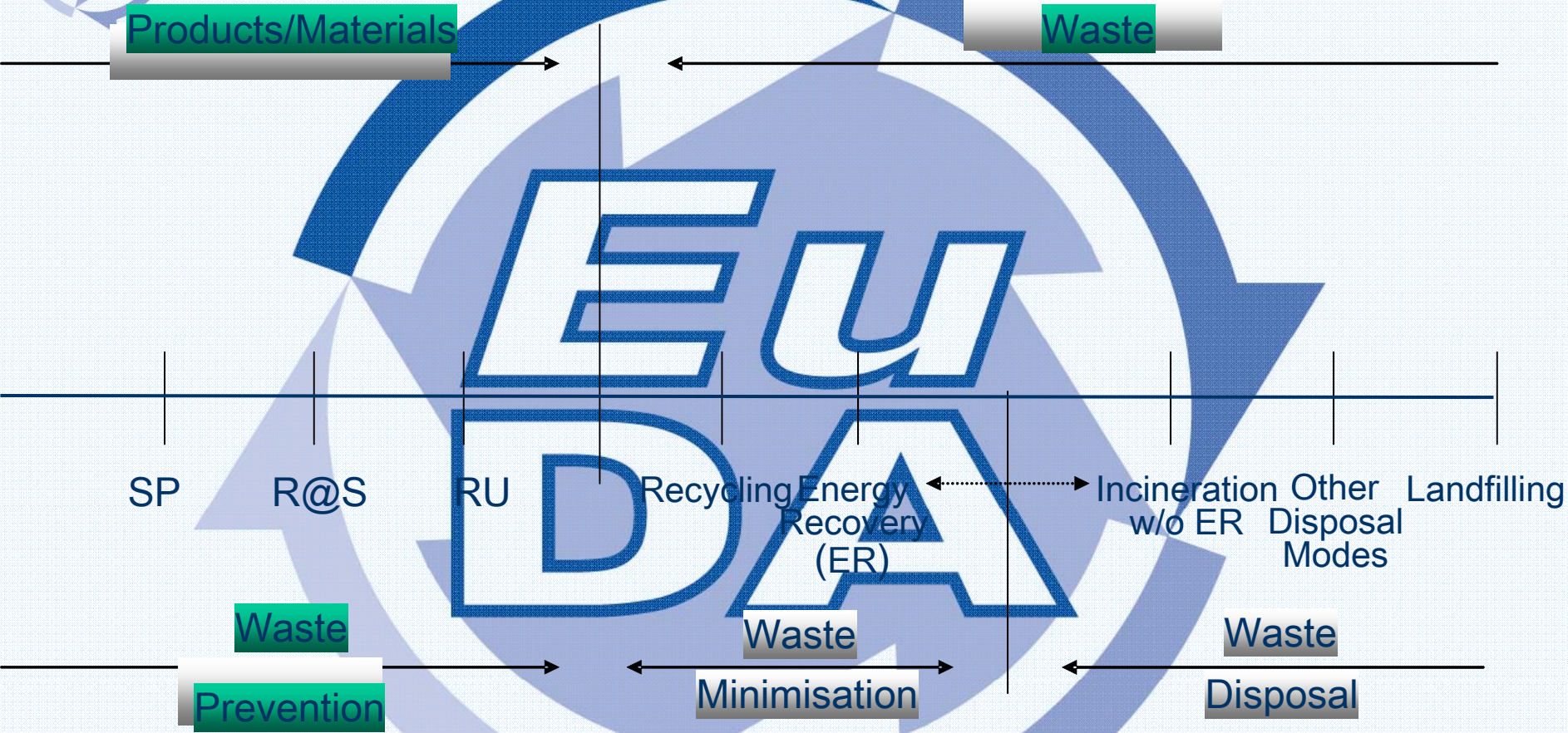




# Hierarchy - old

Waste Framework  
Directive 75/442  
(2006/12/EC)

# An outline of the OECD Waste Management Hierarchy



SP=source prevention

R@S = re-use at source; RU=re-use







# Hierarchy - new

- Non-waste: -prevention
- -re-use

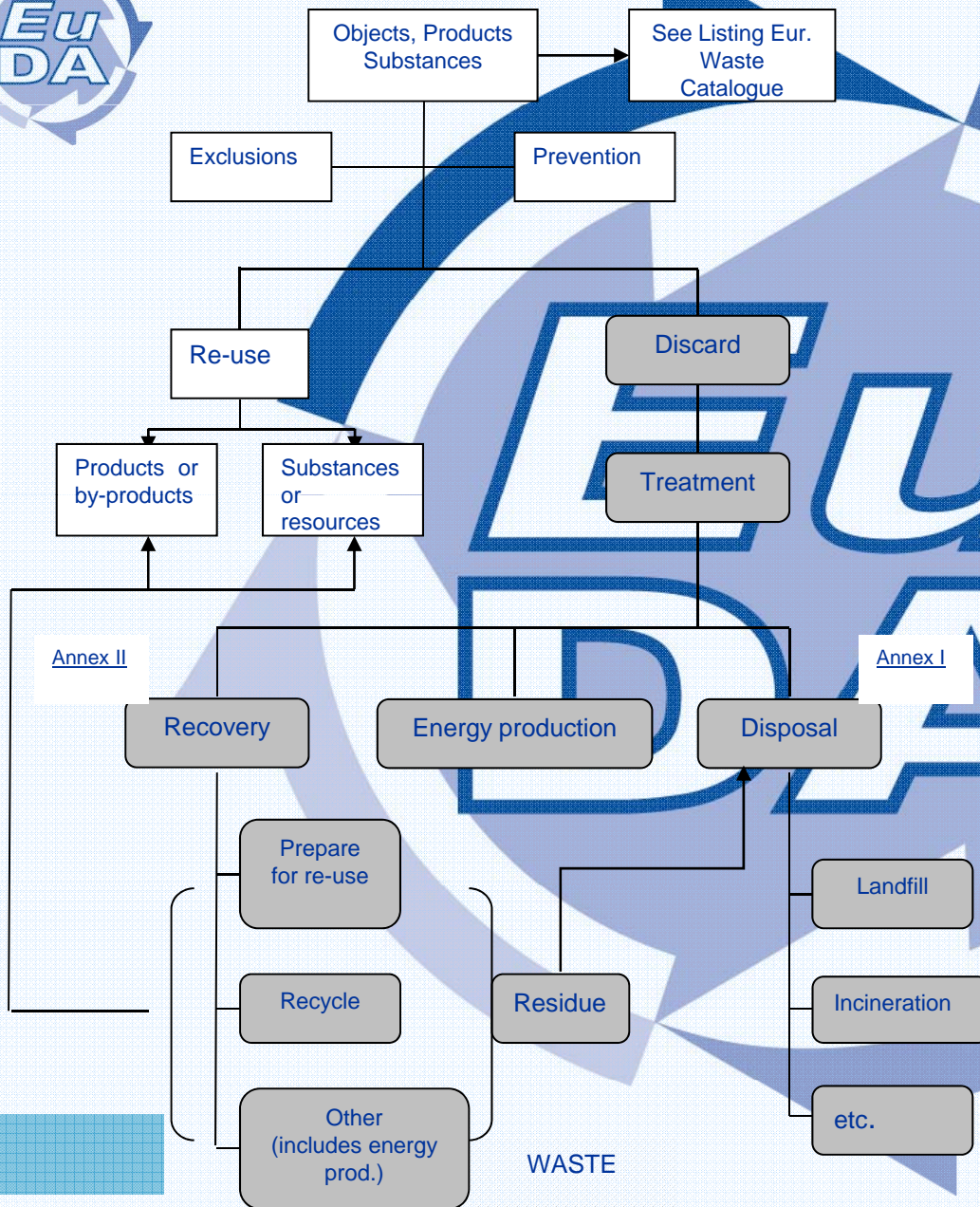
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- Waste: -recovery
- -recycle
- -disposal



# Hierarchy new

New draft Waste  
Framework  
Directive







# New WFD

- The essential difference with the old WFD is better analogy with the OECD logic as well as Marine Conventions:
- Material that is re-used or kept as resource does no longer enter the “waste” phase;
- It is easier to exclude categories from becoming “waste”.





# WFD exclusion

- “ ...sediments relocated inside surface waters for the purpose of
  - managing waters and waterways
  - preventing floods
  - mitigating the effects of floods and droughts
  - land reclamation
- shall be excluded if proven non-hazardous”



# Regulatory Framework

Disposal site	AQUATIC	UPLAND
Dredging Site	Excluded from scope WFD	EU Landfill Directive ??
INLAND	INTERN. CONVENTIONS	Excluded from scope WFD
MARINE		





## EU WASTE HIERARCHY

- Prevent
- Re-use



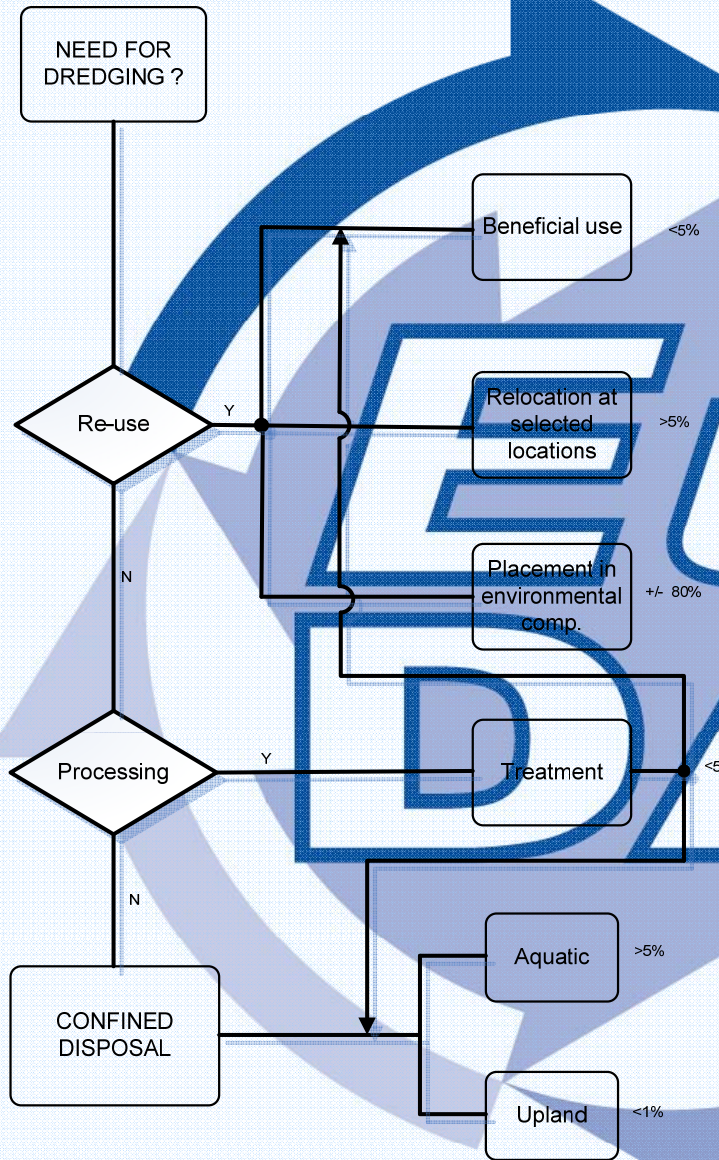
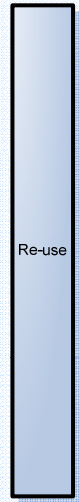
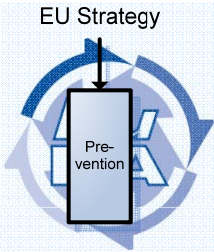
- Recover
- Recycle
- Disposal

## DM HIERARCHY

- Prevent
  - Beneficial Use
  - Relocate (Placement)
- 
- Treatment/Processing
  - Controlled Disposal







# Dredging Hierarchy

Decision logic for dredged material in a marine environment

N.- B.: the annual volume of dredged material in the marine environment is estimated at 200-250 million tons/year for the EU. The % in the diagram indicates roughly the estimated breakdown.