



CIRCULARITY IN THE CONSTRUCTION SECTION

ETSA (Universitat Politècnica de València)

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UNIVERSITAT
POLITÈCNICA
DE VALÈNCIA



Waste Framework Directive (2008/98/EC) objective is to provide a framework for moving towards a European **recycling society** with a high level of resource efficiency.

In particular, Article 11.2 stipulates that "Member States shall take the necessary measures designed to achieve that **by 2020 a minimum of 70%** (by weight) of non-hazardous construction and demolition waste excluding naturally occurring material defined in category **17 05 04 in the List of Wastes** shall be prepared for re-use, recycled or undergo other material recovery"

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CADERSA

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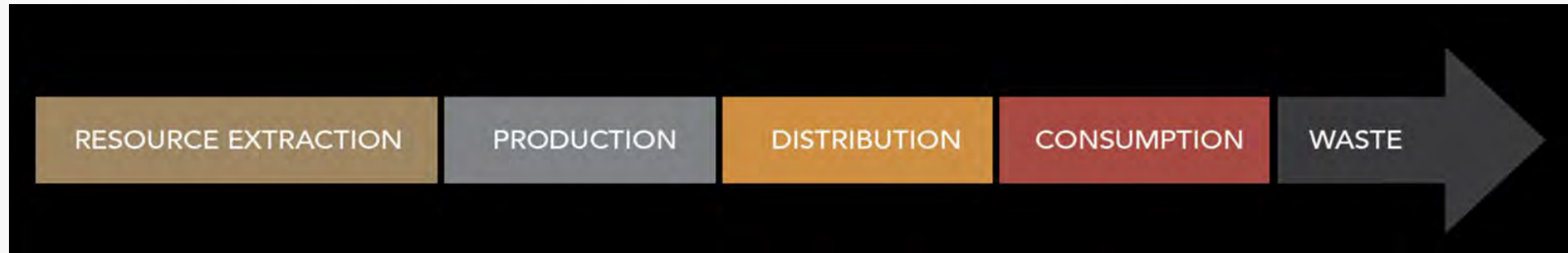


CONSTRUIR LA
SOSTENIBILITAT

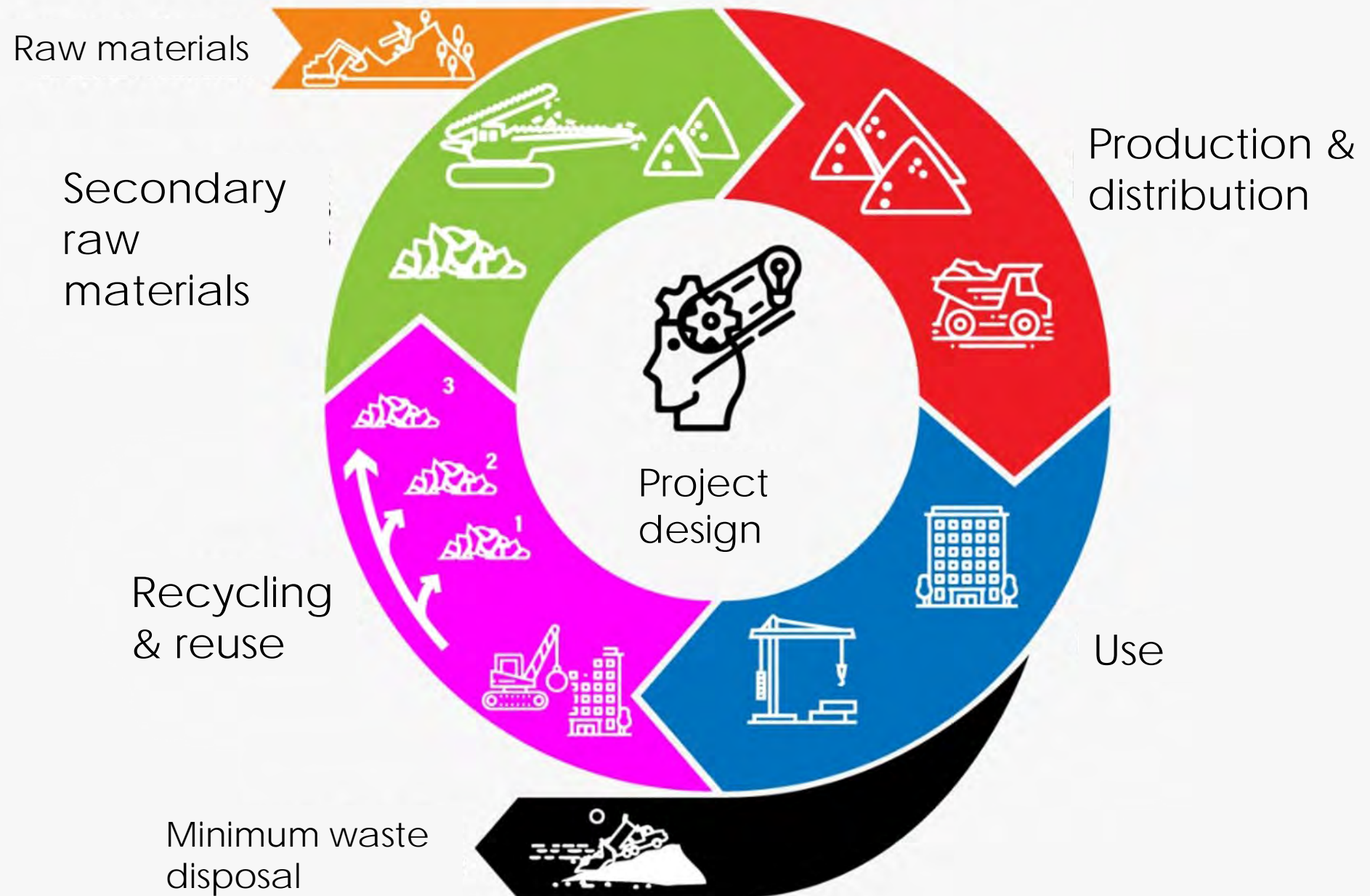
<http://construirlasostenibilitat.net/>

www.cadersa.net

LINEAR ECONOMY



CIRCULAR ECONOMY





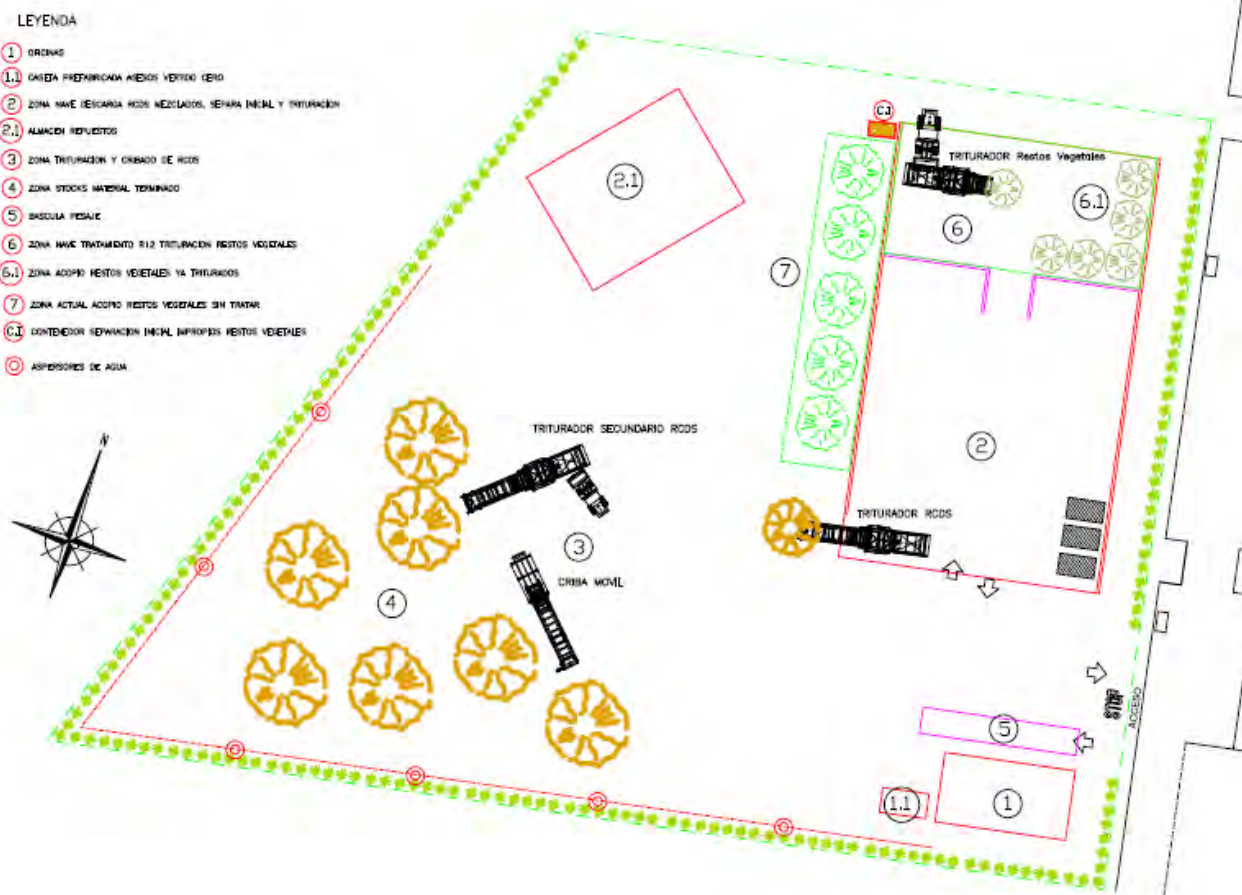
- Recycling plant of construction & demolition waste (CDW)
- Aggregate use
- Movable machinery and equipment
- EC labelling and sale
- Extend the recycled aggregates use



RECYCLING PLANT

- Located in an industrial park
- Restoration project at 700 m
- High turnover of the product

ADOR INDUSTRIAL PARK



RESTORATION AREA: CDW non-recoverable fraction & soil



CE Labelling

- UNE-EN 12620:2003+A1:2009: Aggregates for concrete.
- UNE-EN 13242:2003+A1:2008: Aggregates for unbound and hydraulically bound materials for use in civil engineering work and road construction





90.000 t/year recycled CDW & CE labelling

Main uses

- Pipelines basis
- Ditch filling
- Housing development basis
- Buildings fillings
- Non-estructural concrete

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Pipelines basis

Storm sewer

Water cycle

Electricity &
communications



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Ditch filling

Storm sewer

Water cycle

Electricity &
communications



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Housing development
Streets
Warehouses



BUILDINGS FILLING



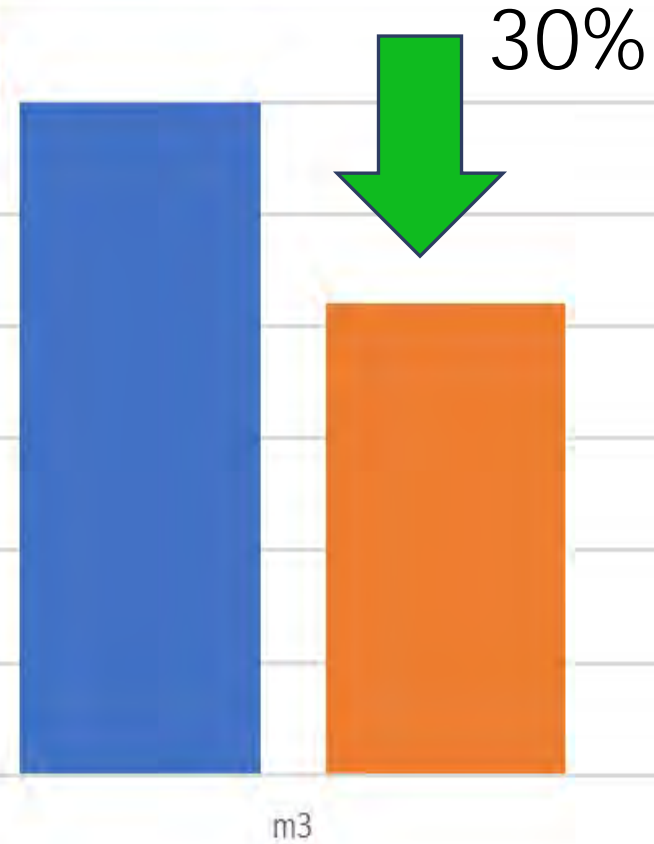
- Non-structural concrete
- Stamped concrete
- Pedestrian zones



“One more twist”

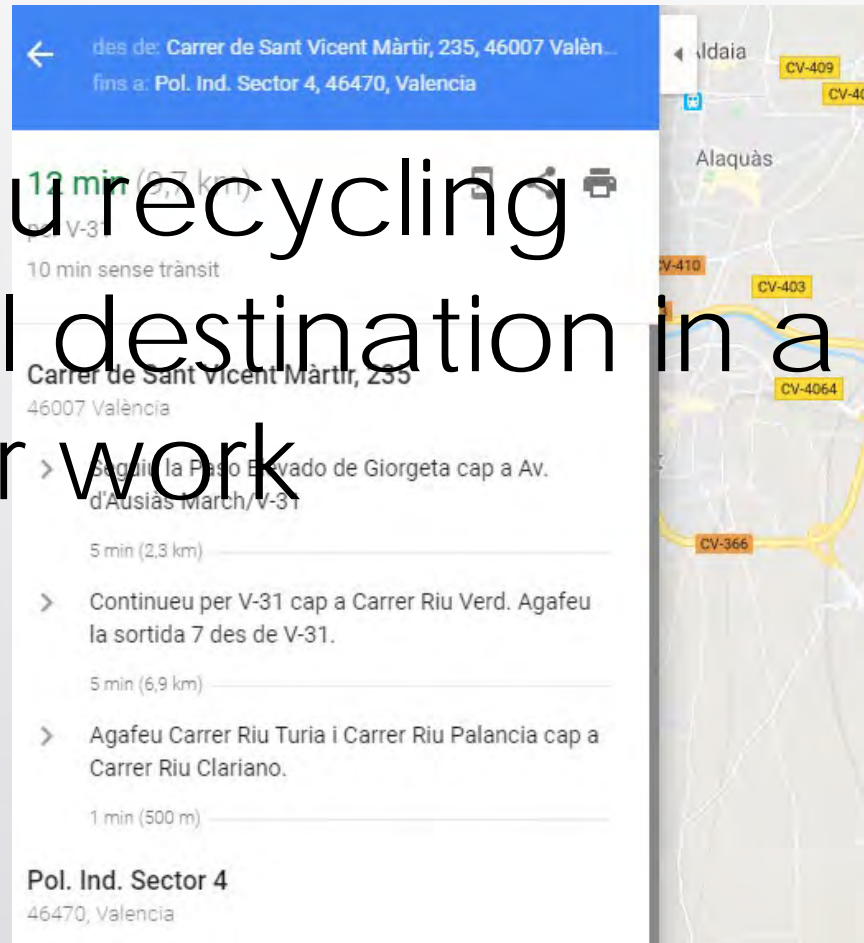


Movable equipment



“One more twist”

In situ recycling
Final destination in a
near work





CONCLUSIONS

- Compulsory in project design
- or in the proposal assessment



Demolition works

- Selective demolition
- CDW recycling
- In situ crushing
- Distance to final destination



Any type of project

- Re-used materials
- Recycled aggregates



Thanks for your
attention

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