



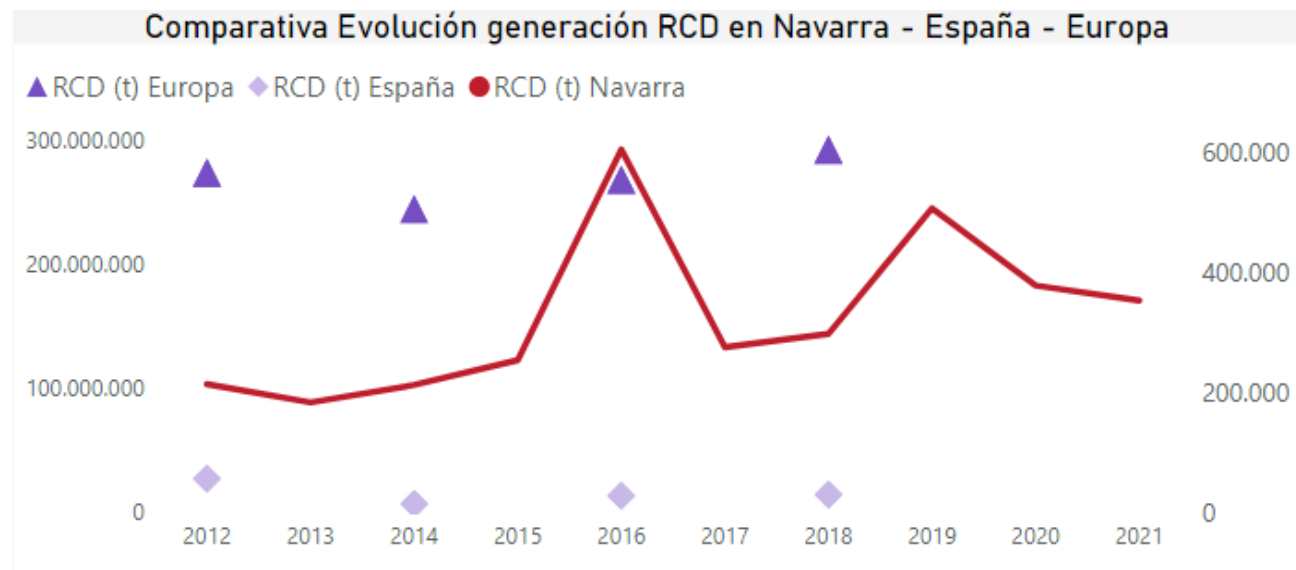
WASTE FROM THE CONSTRUCTION SECTOR IN NAVARRRE

State of the art in Navarra

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Generation

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
215.979	183.567	212.890	254.539	613.722	275.360	297.837	507.064	378.302	353.345



The trend line is ascending, with some notable peaks in 2016 and 2019 due to the execution of large works.

Valorisation

Evolución Valorización RCD

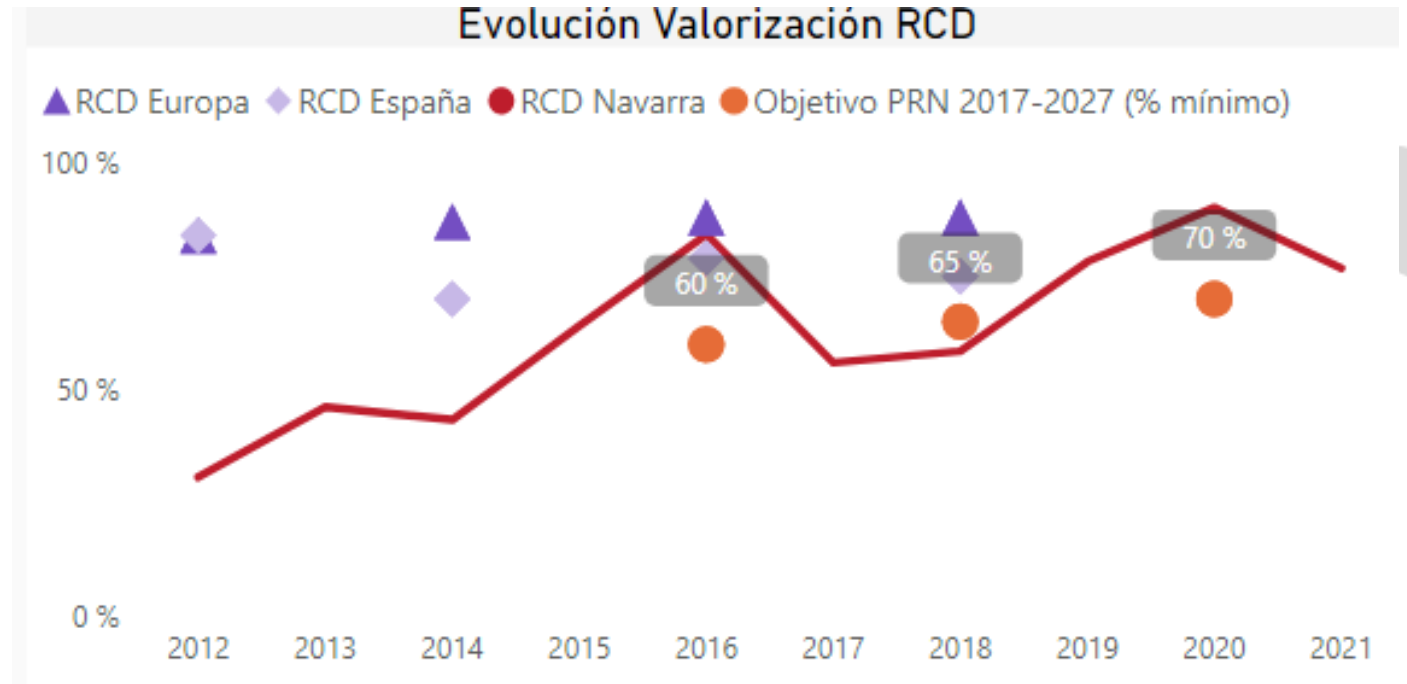
Ejercicio	Valorización (t)	% Valorización
2012	64.027	31 % ▲
2013	87.355	46 % ▲
2014	96.799	43 % ▲
2015	195.613	64 % ●
2016	568.079	84 % ●
2017	189.758	56 % ◆
2018	226.297	58 % ◆
2019	449.521	78 % ●
2020	405.484	90 % ●
2021	349.969	77 % ●

Progressive Objectives of valorisation:

2016: 60%

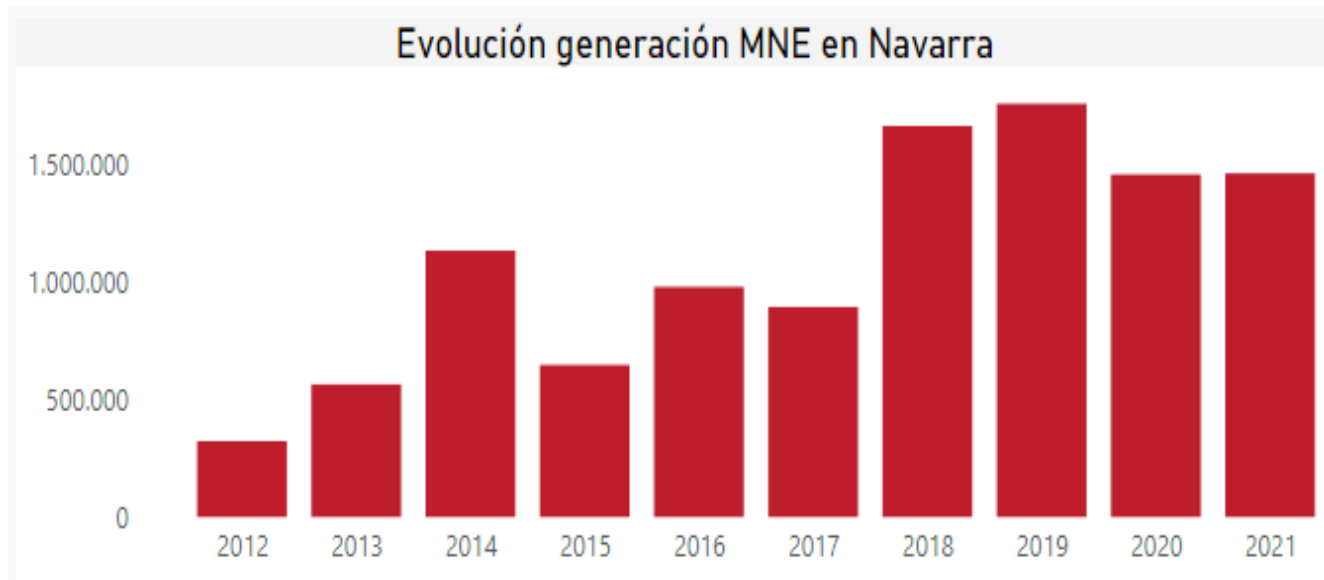
2018: 65%

2020: 70%



The trend line is ascending, with some notable peaks in 2016 and 2020 due to the use of mobile recovery plants on site.

Generation



The trend line is ascending, with some notable peaks in 2014 and 2018-2019, due to the increase in authorizations for land managers.

Valorisation

Evolución Valorización MNE		
Ejercicio	Valorización (t)	Valorización %
2012	987	0 % ▲
2013	71.416	12 % ▲
2014	224.811	18 % ▲
2015	209.890	31 % ▲
2016	181.614	18 % ◆
2017	359.669	39 % ◆
2018	724.814	43 % ◆
2019	1.031.194	54 % ◆
2020	1.142.068	78 % ◆
2021	813.457	49 % ◆

Progressive Objectives of valorisation:

2016: 75%

2018: 85%

2020: 90%



The trend line is ascending, with a notable peak in 2020, due to the increase in recovery operations compared to disposal in landfills.

- National and Regional regulation
- Policy instruments:
 - Navarra Waste Plan 2017-2027
 - Ecological Public Procurement Plan (2023 to 2030)
- Europeans Projects
- CE Chair in “Transfer and Innovation in Circular Economy”
- Others

National and regional regulation on the production and management of construction and demolition waste (CDW): RD 105/2008 and DF 23/2011

Obligations for producers, owners and managers
Technical requirements for treatment plants (mobile plants)

National legislation on waste and contaminated soils: Law 22/2011

Objectives of valorisation:

CDW: 2020: 70%

ENM: 2020: 90%

Valorisation rate of CDW:
2010: 13%,
2012: 31%
2020: 90%

Valorisation rate of ENM:
2010: no data was available
2020: 78%

Very ambitious objectives

Navarra Waste Plan 2017-2027. December 2016 Revision in 2022

- Specific working group for CDW and ENM: working table
- Strategic line of CDW-ENM in the waste prevention program: Promote more sustainable construction and deconstruction
- ENM: Restoration of degraded spaces: Database of degraded spaces (BBDD SPADE)
- ENM: Land exchange



Regional law 14/2018 about waste and its taxation

- Tax on landfill disposal : Waste Fund (Promote the first steps in the waste hierarchy)
 - 2018 onwards:
 - CDW: 3 €/t
 - ENM: 1 €/t
 - Change in trend in the valorisation curve
 - CDW (58% to 90%; 2018 to 2020)
 - ENM (42% to 78%; 2018 to 2020).

- 2023 onwards:

Waste	Characteristic	Type of landfill destination	Tax rate (€/t)
CDW/ENM	Inert	Inert	1,5
	Inert	No dangerous	15
	No dangerous	No dangerous	15

European Project: RCdiGREEN (2019 to 2022)



- Circular Economy of the CDW as a strategy for the prevention of climate change
 - GAN-NIK: technical partner
 - Government of Navarra: stakeholder
- Uses for construction waste
- Two demonstrative pilot experiences:
 - use of recycled aggregate in cycle paths, in synergy with another Poctefa project (Bicimugi)
 - simulation experience of restoration of degraded spaces with construction waste of little value.

<https://rcdigreen.eu/>

European Project: LCA4Regions (2019 to 2022)

- Improved Environment and Resource Efficiency through use of Life Cycle Instruments for implementation of regional policies of the European Union
 - Government of Navarra: lead partner
 - GAN-NIK: stakeholder
- Experiences from other regions about CDW:
 - Life Cycle Analysis (LCA)
 - Life Cycle Cost (LCC)



<https://projects2014-2020.interregeurope.eu/lca4regions/>

Waste Fund 2021

- Waste Fund 2021, CDW and ENM: 625,250 euros for subsidies to companies (262.710 euros) and local entities (362.540 euros) to optimize and improve the recycling and recovery systems for this waste.
 - Companies
 - innovation actions in the field of construction waste and excavated natural materials
 - use of recycled aggregates and excavated natural materials in construction works.
 - Local entities
 - Drafting of restoration projects for degraded spaces that use excavated natural materials
 - Actions aimed at the use of excavated natural materials in restoration of degraded spaces
 - Creation of collection and/or treatment areas for construction and demolition waste in remote towns, as well as financing the total cost of on-site treatment through a mobile plant.

Waste Fund 2021

- Waste Fund 2021, CDW and ENM: 625,250 euros for subsidies to companies (262.710 euros) and local entities (362.540 euros) to optimize and improve the recycling and recovery systems for this waste.

- Companies

<u>Amount requested</u>	<u>Amount granted</u>	<u>Amount justified</u>	<u>Amount paid</u>
281.804,49	262.710,00	234.163,31	234.163,31

- Local entities

<u>Amount requested</u>	<u>Amount granted</u>	<u>Amount justified</u>	<u>Amount paid</u>
14.600,00	14.600,00	14.100,00	14.100,00

The call for local entities was practically deserted.

Waste Fund 2022

- Waste Fund 2022, CDW and ENM: 629.460 euros euros for subsidies to companies (350.000 euros) and local entities (279.460 euros) to optimize and improve the recycling and recovery systems for this waste.
 - Companies:
 - innovation actions in the field of construction waste and excavated natural materials
 - use of recycled aggregates and excavated natural materials in construction works.
 - Local entities:
 - Restoration projects for degraded spaces that use ENM
 - Use of recycled aggregates and ENM in construction works.
 - Drafting and/or execution of projects, for the creation of collection areas and/or treatment of CDW in remote towns, as well as the financing of the total cost of on-site treatment by means of a mobile plant.

Waste Fund 2022

- Waste Fund 2022, CDW and ENM: 629.460 euros euros for subsidies to companies (350.000 euros) and local entities (279.460 euros) to optimize and improve the recycling and recovery systems for this waste.

- Companies

<u>Amount requested</u>	<u>Amount granted</u>	<u>Amount justified</u>	<u>Amount paid</u>
1.159.534,16	141.283,90	107.728,87	107.728,87

- Local entities

<u>Amount requested</u>	<u>Amount granted</u>	<u>Amount justified</u>	<u>Amount paid</u>
44.777,56	44.777,56	5.000,00	5.000,00

In the call for companies, the amounts granted and justified were very low, and the call for local entities was again practically deserted.

Ecological Public Procurement Plan (2023 to 2030)

- Approval before June 2023
- Objectives: sustainable construction in public works: use of wood, recycled aggregate and excavated land.
 - Promote the use of wood, until **40%** of public works contracts use more wood than the minimum required in the regulatory framework
 - Increase the quality of the wood used, until **100%** of the wood used in public works contracts is wood with sustainable forest management certification, certified recycled wood, or wood whose production or transportation generates a lower carbon footprint
 - Promote the use of recovered materials (such as recycled aggregate, excavated earth, rubber, plastic, etc.), in the execution of public works contracts, until **100%** of public works contracts use recovered materials

National legislation on waste and contaminated soils: Law 7/2022

Objectives of valorisation:

CDW: 2020: **70%**

ENM: 2020: **90%**

- Demolition works, dangerous substances, in particular asbestos, must be removed
- July 1, 2022, non-hazardous construction and demolition waste must be classified into at least the following fractions: wood, mineral fractions (concrete, bricks, tiles, ceramics, and stone), metals, glass, plastic and plaster
- The demolition will preferably be carried out selectively, and on a mandatory basis as of January 1, 2024

CE Chair in “Transfer and Innovation in Circular Economy”

- GAN-NIK and the Public University of Navarra
- Objective: to generate knowledge in the area of the circular economy, enabling the integration of the academic and business worlds
- The chair will research:
 - the uses of biomass for the development and application of the circular economy, analysing the sustainability of producing clean and renewable energy by recovering natural waste such as forestry waste or other products from industrial management
 - It also will promote the use of secondary raw materials in the construction sector for the recovery of waste.

Construction industrialization

- **Construction cluster:** it advocates for the public-private collaboration and it is part of Navarra's commitment to leading the industrialization processes in the construction sector at a national level with the aim of positioning itself at a European level
- **National Centre for industrialization of construction:** the centre for industrialization and robotic of construction is going to be installed in Navarra to develop capacity building and applied research for companies.

European Project: Inertwaste (2023 to 2026)

- Valorisation of inert waste (construction and industrial) for the restoration of degraded spaces and other types of valorisation and industrial symbiosis.
 - Government of Navarra: lead partner
 - GAN-NIK: technical partner

Upcoming performances

- Poctefa project on circular economy in rehabilitation works
- Analysis of the value chain of the construction sector
- CDW traceability
- adaptation of regulations.



CONCLUSIONS

The instruments that contribute mainly to the achievement of objectives are:

- legislation by establishing obligations
- the tax on landfill disposal and its return through the Waste Fund for the promotion of the first links in the hierarchy
- participation in European projects that allow an exchange of experiences between regions.



WASTE FROM THE CONSTRUCTION SECTOR IN NAVARRRE

State of the art in Navarra

Thank you very much for your attention!

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