



14-15 November 2023 Pamplona (Spain)





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# 1. Introduction - INERTWASTE and the Transnational Learning Journeys

The Interreg Europe INERTWASTE project focuses on the valorisation of inert and inorganic waste from industrial and construction processes, aiming at extending the life cycle of resources, reducing the extraction of raw materials, and avoiding environmental impacts. The project intends to contribute to a more effective implementation of environmental policy instruments through the exchange of European regional experiences and the discussion of ideas for resolving current policy challenges.

INERTWASTE exchange and mutual learning process is based on the methodology of the 'Transnational Learning Journeys' (TLJs). This methodology is adapted to the specific context of INERTWASTE management policies, which requires the direct involvement of public and private actors in the development and implementation of local and regional policy improvements.

Transnational Learning Journeys bring together partners and stakeholders from different countries to share challenges, opportunities and good practices on one specific theme with the aim of improving partners' regional policy instruments. A TLJ includes: Regional Peer-review Workshops; Sustainability Jam Session with policy makers and industry representatives; study visits.

#### The INERTWASTE TLIs are:

- 2023 Navarra Region (ES) Regulatory frameworks for sustainable inert waste management;
- 2024 Podravje Region (SI) Societal, technology and market challenges for sustainable management of inert waste from industrial and construction processes;
- 2024 Region SUD (FR) How to promote and support the integration of the circular economy in construction contracts for a better management of construction waste? The role of the waste prevention and management planning authority
- 2025 Region Zealand (DK) Local public authority and policies as driver for green transition in industrial and construction sector and future skills and knowledge

This document focuses on the first Transnational Learning Journey that took place in November 2023 in the region of Navarra (northern Spain). It belongs to the series of TLJ Learning Documents which summarizes the practices discovered, the discussions held, the lessons learnt, and elaborates some inputs to be further explored by the project. Finally, this document proposes some elements to be considered for improving the quality and effectiveness of the next TLJ.

### 2. Transnational Learning Journey #1

#### 2.1. Overview



On **14 and 15 November 2023,** the partners of the Interreg Europe INERTWASTE project met in **Pamplona (ES)** for their first TLJ, bringing along actors engaged in inert waste management in their territories.

Organised by the Government of Navarra and the public company GAN-NIK, the TLJ focused on **regulatory frameworks for inert and inorganic waste**. It aimed to:

- Understand the regulatory framework for the valorisation of inert and inorganic waste from industrial processes and from the construction sector in different regions.
- Share good practices and innovative approaches from 4 different countries in the implementation of public policies for the efficient use of resources.
- Identify strategies for enhancing valorisation of inert and inorganic waste (focused in Navarra/Spain, with input from other regions).
- Facilitate knowledge exchange, enhance capacity building and foster networking and collaboration.

Through several presentations and sessions, participants delved into the situation in Europe, Spain (and especially Navarra) and France, making links and finding differences with the other represented countries (Denmark and Slovenia).

Participants represented different sectors (mining and its restoration, insulation, concrete production by recycled construction waste, extended producer responsibility scheme for building waste or valorisation of used materials) and actors (public authorities, private companies, research centers and environmental consultancies) of both the industrial and construction/demolition waste value chain.

The TLJ included a match-making session during which invited stakeholders could book a one-to-one meeting with another participant, with the aim of fostering business synergies and networking.

I would like to meet	(DK) BIRKELINK	(DK) RECYCON	(FR) NEO-ECO	(FR) Valobat	(SL) Termit d.d.	(ES) Acciona	(ES) ATE & COMPACTA DOS	(ES) Fundación Laboral de la Construcción	(ES) Magnesitas Navarras	(ES) PROLESOGAL	(ES) ROCKWOOL PENINSULAR	(ES) Universidad Pública de Navarra
(DK) BIRKELINK	-											
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(ES) Magnesitas Navarras									-			
(ES) PROLESOGAL										-		
(ES) ROCKWOOL											-	
(ES) Universidad Pública de Navarra												-





# 2.2. Agenda

#### **Tuesday 14 November**

09:00 - 09:10	Opening and welcome by a representative of the Government of Navarra
09:10 - 09:30	Introduction of participants
09:30 - 09:45	The INERTWASTE project
	Peer workshop (part 1)
09:45 - 11:15	The EU regulatory framework for inert and inorganic waste (DG ENV, European Commission)
	Territorial state of the art in Navarra/Spain, policy context and challenges to foster recirculation of
	inert and inorganic waste (Government of Navarra)
	Regulatory framework in France with a specific focus on inert waste (Region SUD)
	Panel discussion: the valorisation of inert and/or inorganic waste and the context in the different
	regions of the project
11:15 - 11:45	Coffee break
	Peer workshop (part 2) - Good Practice presentation by each region
	"Rehabilitation of abandoned mining areas with waste processed into building composites and
	building aggregates" - GP in Slovenia ( <i>Termit d.d.</i> )
11:45 - 13:30	"Extended producer responsibility scheme for building waste and materials" - GP in France (VALOBAT)
	"Building with no waste: concrete with 100% recycled aggregates" - GP in Denmark (Recycon A/S)
	"Valorisation of rock wool via by-product" - GP in Spain (ROCKWOOL Peninsular S.A.U.)
	Q&A
13:30 - 15:00	Lunch
15:00 - 16:30	Sustainability Jam Session
	Presentation of a qualitative evaluation of current policy instruments, main gaps and limitations in
	Navarra/Spain ( <i>GAN-NIK</i> )
	Discussion of the evaluation, gaps and limitations.
	Brainstorming and discussion of potential strategies and recommendations for improving the current
	situation.
16:20 17:00	Matchmaking session for stakeholders to promote business synergies or industrial symbiosis and
10.30 - 17.00	exchange of experiences
15:00 - 16:30 16:30 - 17:00	Discussion of the evaluation, gaps and limitations.  Brainstorming and discussion of potential strategies and recommendations for improving the curre situation.  Matchmaking session for stakeholders to promote business synergies or industrial symbiosis a

# Wednesday 15 November

09:00 - 09:30	Welcome, overview and conclusions of Day 1 SWOT analysis
09:30 - 10:00	How to address ERDF Programme of Navarra 2021-2027 with experiences from partner regions
10:00 - 13:00	Study visit to the biomass plant of Acciona in Sangüesa - Focus on options for the valorisation of ash and slag
13:00 - 15:45	Lunch and return to Pamplona
15:45 - 17:30	INERTWASTE Steering Committee (partners only)



# 3. The host: Navarra Region

#### 3.1. National (legal) context

First of all, it is important to understand the various roles involved in the waste management scenario (Figure 1). There are different figures such as "producers" and "waste managers", and their classification depends on the type of material they handle, whether it is classified as "waste" or "byproduct". Each figure has its own distinct characteristics and requirements.

#### The Navarra Region

Country: Spain

Capital City of the Region: Pamplona Population: approx. 650.000 inh.

Producers generate waste that is sent to waste managers, or they generate by-products that are sent to other producers. Waste managers, on the other hand, receive waste from producers or from other waste managers and have the possibility to enhance the value of the waste they receive, and even transforming waste into a non-waste material that can be reintroduced among producers.

At national level, the most relevant change in the legal framework of Spain has been the introduction in 2022 of Law 7/2022 on waste and contaminated soils for a circular economy, which transposes the EU Directive 2018/851 to the national context. Within this law, certain articles are highlighted as particularly important for promoting the valorisation of inert and inorganic waste in the industrial and construction sectors, such as those including the new concept for by-product, the end-of-waste statues, self-sufficiency and proximity and exemptions of permit requirements.

"Article 4. By-products" establishes the conditions for classifying materials as "by-products". It emphasizes that for a material to be considered a by-product, its further use must be certain, it should be used directly without processing, it must be an integral part of a production process, and its further use must lawful (i.e. comply with environmental and health protection requirements). This article is a transposition of EU regulation into national law and empowers regional authorities to grant by-product declarations.

"Article 5. End of waste status" sets the conditions for determining when waste achieves the "end of waste" status. It states that for waste to be considered at its end of life, it must be used for specific purposes, there must be a market or demand for the material, it must meet technical requirements, and it must not have any significant environmental or human health impact. Similar to the previous article, this is a transposition of EU regulations and empowers regional authorities to grant authorizations for the end of waste status.

"Article 34. Exemptions from permit requirements" focuses on specific exemptions related to waste managers. It allows for on-site disposal of non-hazardous waste, recovery of non-hazardous waste, and the operation of research and development facilities. This article in encompassed in waste managers adhering to national regulations and regional communication.

There are also exemptions regarding the recovery of non-hazardous waste authorization requirements, which are covered under Order APM/1007/2017. This order provides general rules for the recovery of excavated natural materials.

Returning to the national Law 7/2022, "Article 9. Self-sufficiency and proximity" also affects waste managers. It emphasizes the need for an integrated network of disposal facilities and encourages closer advanced recovery facilities.

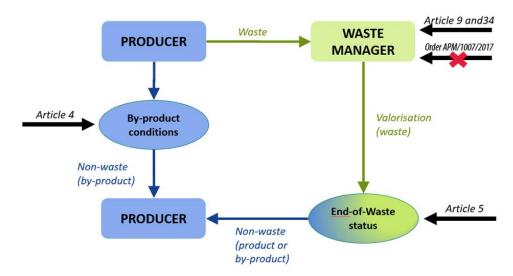


Figure 1. Scheme of the different figures involved the waste management scenario (producers or waste managers), type of material that they handle (waste or by-products), and focus of relevant articles of Law 7/2022 and Order APM/1007/2017.

### 3.2. Regional policies

At regional level, relevant recent public policies that foster the valorisation of inert and inorganic waste in the industrial and construction sector include:

- Navarra Waste Plan 2017-2027 published in December 2016 and reviewed in January 2024 including:
  - Specific working group for CDW and ENM.
  - Strategic line of CDW-ENM in the waste prevention program to promote more sustainable construction and deconstruction.
  - ENM to restore degraded spaces includes a database of degraded spaces (BBDD SPADE).

- ENM land exchange to share the availability of excavation lands and the existing destinations for their valorisation.
- Regional law 14/2018 on waste and its taxation that sets taxes on landfill disposal
  and the creation of the Waste Fund to promote the first steps in the waste
  hierarchy to optimize and improve the recycling and recovery systems through
  subsidies for companies and local entities. It also includes the development of a
  Green Public Procurement Plan.
- Waste Fund, this tool, created in 2018, offers financial support to projects aimed at reducing waste, improving efficiency, and promoting the valorisation of industrial and construction waste. The fund is financed through taxes, penalties, and donations, and is distributed through annual calls to various entities. Since 2020, more than €15 million have been allocated in numerous waste flows. The fund has assigned over €740,000 for CDW and industrial waste among 17 private entities and one public body.
- Agenda for Circular Economy in Navarra 2030 published in 2019 including actions to work on the higher steps of the waste management hierarchy (from prevention and reuse to proper management).
- Participation in European projects that allow an exchange of experiences between regions:
  - <u>RCdiGreen</u> (2019-2022): Circular Economy of the CDW as a strategy for the prevention of climate change including two demonstrative pilot experiences on the use of CDW.
  - <u>LCA4Regions</u> (2019-2022): Improved Environment and Resource Efficiency through use of Life Cycle Instruments for implementation of regional policies of the European Union including interchange of experiences about CDW.
- Circular Economy Chair in "Transfer and Innovation in Circular Economy", signed
  in 2023 between GAN-NIK and the Public University of Navarra to generate
  knowledge in the area of the circular economy. Special focus is on to the use of
  secondary raw materials in the construction sector and the implementation of
  more sustainable construction techniques based on the use of construction
  materials with a reduced environmental footprint for the building sector.
- Navarra Zirkular, a public-private initiative presented in October 2022 to boost the
  circular economy among companies including collaboration between construction
  and built environment companies, research centres and universities as well as
  facilitating specialized knowledge through technical studies such as the supply
  analysis of the construction sector.
- <u>Construction cluster</u>: it advocates for the public-private collaboration and it is part of Navarra's commitment to lead 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



#### 3.3. Behind the TLJ

#### The Government of Navarra



The Government of Navarra is the Lead Partner in the INERTWASTE project. The Directorate of Environment of the Government of Navarra plays a crucial role in the project, focusing on planning and promoting the circular economy,

controlling pollution and waste, and authorizing and monitoring activities with environmental impacts. The Government of Navarra is dedicated to the proper development and monitoring of the Waste Plan of Navarra, aiming to position the region as a leader in the use of resources and waste minimization. It oversees various aspects of waste management, including monitoring the Waste Management Plan and controlling industrial activities related to waste production and management.

Through the INERTWASTE project, the Government of Navarra aims to improve public policy of the European Rural Development Fund (ERDF). Other instruments can also benefit from the participation in the project, such as the Waste Plan, to find valorisation solutions for waste and create business synergies. The Directorate of Environment will also benefit from ideas and criteria from other regions for selecting projects supported by the Regional Waste Fund.

The Government of Navarra is also involved in another Interreg Europe project related to waste management, specifically focused on challenges in WEEE. It expects to find policy solutions through interregional cooperation.

#### **GAN-NIK**



GAN-NIK is a public company that primarily serves the Department of Rural Development and Environment of the Government of Navarra. It is a partner in the INERTWASTE

project. Its involvement in INERTWASTE comes from its Circular Economy (CE) Area, which specializes in waste management and circular economy practices. The CE Area of GAN-NIK actively supports the Directorate of Environment of the Government of Navarra in activities related to waste prevention and management, including technical aspects, communication, and awareness-raising. Additionally, the company plays a crucial role in the Office for the Prevention of Waste and the Promotion of the Circular Economy, collaborating with local entities and waste managers.

The CE Area of GAN-NIK has actively contributed to the drafting and preparation of the Waste Plan of Navarra (WPN), as well as to the recent reviewing and monitoring of the plan.

GAN-NIK offers consultation services on waste to both companies and citizens, facilitating continuous interaction with businesses. It assists companies in finding new recovery routes and identifying synergies between high-value waste and other products or land, promoting the circular economy. GAN-NIK's participation in the INERTWASTE project is of great interest not only due to its technical expertise but also because of its understanding of the challenges faced by businesses in waste management and the potential value of certain waste materials.

# 4. Peer workshop

### 4.1. The EU Regulatory framework

The first keynote speaker of the day, Florian Flachenecker from the European Commission Directorate of Environment, provided an overview of existing and upcoming EU initiatives on construction and demolition waste, as 98% of this type of waste is inert and inorganic.

In the current European policy context, two pieces of legislation refer to inert and inorganic waste: the Landfill Directive and the Waste Framework Directive. The first lays out a definition of this type of waste. On the other hand, the Waste Framework Directive promotes selective demolition, preparation for reuse and recycling of C&D and overall waste reduction, but so far, no specific targets have been established beyond 2020 for this type of waste.



In parallel, Florian Flachenecker explained that the European Commission Joint Research Centre is conducting assessments on current construction and demolition waste management in the EU. One of the major challenges to recycling and preparing for reuse of C&W that emerged from the studies, and pointed out by the speaker, is that this shift comes with increased costs for most material fractions. Mr Flachenecker highlighted how, alongside relevant waste policy, the EU taxonomy can play an important role in addressing this gap, by helping to raise the needed investments.

With the EU Taxonomy, buildings must adhere to environmentally sustainable principles and practices in their design, construction, and intended use. Among the key requirement for new buildings is that a minimum of 70% of non-hazardous construction and demolition waste generated at the construction site is managed in alignment with the waste hierarchy and the EU Protocol on the Management of Construction and Demolition Waste. This includes re-use, recycling, and other material recovery methods, such as backfilling, where waste serves as a substitute for different materials.

The presentation and the discussion highlighted that several initiatives and studies are ongoing at EU level, but that no silver bullet exists to boost more circular approaches in the construction and demolition sectors. Only a combination of several instruments, including the EU taxonomy and waste policy, will enable the transition.



### 4.2. Regulatory framework in France



To summarise French legislation on the circular economy, with impacts on public and private players involved in inert and inorganic waste, 3 laws are worth noting:

- Law on the Energy Transition for Green Growth August 2015 (LTECV in French)
- The Anti-Waste and Circular Economy Act February 2020 (AGEC in French): which incorporates certain elements of the TLCV Act, but adds a number of important new objectives and measures to the regulations.
- A new law published in October 2023 on green industry reinforces certain aspects of the circular economy.

#### 4.2.1. <u>LTECV law on the Energy Transition for Green Growth</u>

The TECV law establishes the foundations regarding the goal of 70% valorization of construction waste and defines the hierarchy of waste treatment methods. It also sets objectives for the construction and demolition of roads for public project owners: only for local authorities and the State (TECV) and road construction or maintenance sites for which they are project owners.

- For materials and waste PRODUCTS on construction sites: At least 70% are reused or directed towards recycling or other forms of material recovery.
- For materials USED: 60% by mass of all materials used during the year on construction sites and at least 30% by mass of materials used in the base layers come from re-use, reuse or recycling of waste.

#### 4.2.2. The Anti-Waste and Circular Economy Law

The AGEC law sets highly ambitious targets for reduction, reuse, recycling, and imposes limits on waste. These ambitious objectives are mirrored in the waste planning of the SUD Region.

New obligations now apply to the operational chain of construction stakeholders: from the project owner to the construction company, including waste collection, valorization, and treatment operators. The aim is to promote reuse and recycling on-site, but also to anticipate and optimize valorization, ensuring better traceability.

- Diagnosis Equipment Products Materials Waste: the project owner has the obligation to carry out a diagnosis relating to the management of products, equipment materials and waste (PEMD) resulting from this work during demolition or rehabilitation work on buildings over 1000 m2: Accueil PEMD (developpement-durable.gouv.fr)
- Obligation of Traceability: for any operation on excavated earth used outside the site of their excavation (production, import, export, treatment, collection, transport, brokerage, trading), and for data relating to waste entering and leaving the operators of the installations. Declaration to the "RNDTS" National Register of Waste Excavated Earth and Sediments is mandatory on the government digital platform: Accueil | Registre National des Déchets (developpement-durable.gouv.fr)
- **Dematerialized waste tracking slips**: Concerning hazardous waste, a "management system" dematerializing the process of issuing and managing waste tracking slips (BSD) must be created => This system uses the Trackdéchets application (tele-service / computerized data exchange)
- Mayors or local authorities (group of municipalities) in the event of transfer of competence: in the event of illegal dumping, mayors (elected municipal officials) may impose an administrative fine of a maximum amount of EUR15 000 against the producer or holder of waste and put them on notice to carry out the operations necessary to comply. of this regulation within a specified period + Extended police powers
- **Construction companies**: The quotes relating to construction, renovation and demolition work on buildings as well as the quotes relating to gardening work mention the methods of removal and management of waste generated by the work as well as the associated costs. They specify in particular the facilities in which it is planned for this waste to be collected

#### The implementation of an Extended Producer Responsibility (EPR) for the Building

Construction Products and Materials sector is underway, involving approximately 43 million tonnes of building waste out of the total 240 million tonnes of construction waste

Any producer or holder of construction and demolition waste must sort waste at source and, where waste is not treated on site, collect it separately, in particular for wood, mineral fractions, metal, glass, plastic and plaster.

- Compulsory sorting from 2025 for all producers or holders of: Glass, plastic, metal, wood, paper and cardboard, textiles (Compulsory since 2016 for volumes greater than 1100 litres per week)
- Compulsory sorting from 2025 for all producers or holders of: Mineral and gypsum fractions

Any producer or holder of waste shall set up separate waste collection systems in its establishments, adapted to the different activities carried out in these establishments and, where appropriate, accessible to staff, to enable waste to be sorted at source, including waste generated by the consumption of everyday consumer products by its staff.

#### 4.2.3. <u>Law on Green Industry</u>

The green industry law aims to meet a dual objective:

- **Environmental**, to face the climate emergency: a reduction of 41 million tonnes of CO2 equivalent is expected by 2030
- And **Economic**, aiming at the reindustrialization of the country and job creation.

At the time of the TLJ, this law was new, and the detailed instructions for how to apply it were expected to be published in the following months.



#### 5. Good Practices

# 5.1. Rehabilitation of abandoned mining areas with waste processed into building composites and building aggregates (Termit d.d.)



Termit d.d. is a mining company from Slovenia that excavates more than 200,000 tons of quartz sand annually. Excavation pits need to be rehabilitated. For rehabilitation, Termit uses the material removed during the production of quartz sand separation. This material is quartz clay, with the trade name MKG. However, for rehabilitation more material is need, for which Termit is using custom-made building materials, based on inert waste, that match natural materials.

By properly processing waste into materials that have the same properties as natural material, we preserve natural resources, acquire new quality land, prevent waste disposal and preserve natural resources.

By processing waste into materials that replace natural material, Termit helps industries that generate large amounts of suitable non-hazardous waste (such as waste foundry sand, slag, ash, paper sludge, waste from sand pits, construction waste...). It relieves waste owners of the worry of where to dispose of the waste and reduce their production costs. Composites can replace the use of conventional construction materials by natural resources remain preserved, and negative environmental impacts are reduced.

This was selected as a good practice case because it contributes to use of inert waste for rehabilitation of quarries and with the implementation of this process the company Termit has set innovative practices in Slovenia, which also need to consider national regulation on usage of waste as resource, an area which requires administrative changes rather than technological solutions.



# 5.2. Extended producer responsibility scheme for building waste and materials (VALOBAT)

Valobat is the eco-organization for the building industry approved by the public authorities, created by and for the building industry, offering solutions adapted to all building products and materials and to all collection channels.

The PMCB EPR sector, which covers waste from the deconstruction, renovation and construction of buildings, as well as waste from the manufacture of construction and building products, has been operational since 2023.



On the scale of the Provence Alpes Cote d'Azur region, this new EPR will be responsible for 700,000 tonnes of non-hazardous waste, or 12% of regional production, and 2 Mt of inert waste, or 11% of regional production. This makes the new REP a key player in waste prevention and management and in the development of the circular economy.

4 eco-organisations have been approved (30/09/2022 and 6/10/2022) by the Ministry of Ecological Transition to manage the PMCB EPR stream, as well as an approved coordinating eco-organisation for the building sector (OCAB or OCA-Bâtiment approved on 17 February 2023: OCA-Bâtiment decree):

- ECOMINERO (Category 1 Inert)
- ECOMAISON (Category 2 Non-hazardous waste)
- VALDELIA (Category 2 Non-hazardous waste)
- VALOBAT (Categories 1 and 2 Inert and non-hazardous)

The eco-organisations are putting in place common specifications for the organisation of public drop-off centres, and specific contractual agreements for the waste collection, sorting and massification market, with professional drop-off centres, materials distributors and waste managers on building sites. The purpose of these contracts will be to implement the established network of collection points and the gradual introduction of free waste take-back.

The aim of the scheme is to offer local solutions tailored to the needs of construction companies and tradespeople to ensure that construction waste is properly managed.

The eco-organisations set up by the producers of the products referred to in 11° of article L. 541-10-1 (AGEC Act) are required to cover all the collection and sorting costs of the waste management operators with which they enter into an agreement, as well as all the costs associated with the reuse of waste collected on national territory, under the conditions set out in the specifications referred to in article L. 541-10. The assumption of these costs shall take account of the revenue generated by re-use and shall not exceed the provision of cost-effective waste management services.

The agreement provided for in the first paragraph of this article provides for the ecoorganisation to take back sorted waste at a positive or zero price, when the operator so requests, with a view to recycling it under the conditions provided for in article L. 541-10-6.

VALOBAT proposes the drafting of an operational best practice for the implementation by a materials distributor (including commercial signs accessible to private individuals).



#### View the presentation

# 5.3. Building with no waste: concrete with 100% recycled aggregates (Recycon A/S)

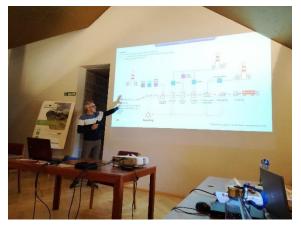
RECYCONTM Element was established in February 2022 as a result of increased market demand for a more resourceefficient and climate-friendly concrete. It specialises in casting concrete elements with 100% recycled construction waste aggregates and other waste fractions for use where structural or certified concrete is not required. It casts silo system elements, barrier blocks, traffic elements and customised concrete elements etc. with aggregates made primarily from recycled construction waste. The materials are broken down to 0-4mm and 4-22mm respectively, replacing natural raw materials of both the sand/gravel and stone fractions in concrete production.





View the presentation

# 5.4. Valorisation of stone wool via by-product (ROCKWOOL Peninsular S.A.U.)



ROCKWOOL Peninsular is the Spanish subsidiary of ROCKWOOL Group, the world's leading manufacturer of volcanic rock wool products (thermal, acoustic and fireproof insulation) with 75 years of history and origins in Denmark. Today, the company employs more than 10,000 people in more than 30 countries and owns 25 factories in Europe, America and Asia.

This good practice discussed addresses challenges in the waste valorisation process under the former national law, characterized by a long and bureaucratic decision procedure managed by the central government. The introduction of the national "Law 7/2022 on waste and contaminated soils for a circular economy" has significantly improved the situation. This legislation, transposing EU Directive 2018/851, simplifies the valorisation process by shifting management to local authorities. The decision procedures are now shorter. Furthermore, the new law introduces the concept of "by-product".

ROCKWOOL Peninsular has traditionally experienced long bureaucratic procedures related to the former national law on waste (which could take from 1 to 4 years). Under the new law regulatory framework, ROCKWOOL managed to reclassify its stone wool scraps as a "by-product" instead of "waste" with a more manageable procedure (which took 7 months). The declaration of by-product of stone wool scraps is the first one approved by the Government of Navarra for inert or inorganic waste in the new regulatory framework, which makes this a relevant good practice in the region.

With the new regulatory framework, ROCKWOOL Peninsular successfully applied for the "by-product" status of its stone wool scraps, which are now classified as by-product instead of waste. Stone wool scraps are used as insulation in construction, and the reclassification from "waste" to "by-product" elevates the status of this material in the waste hierarchy and promotes its reuse. This reclassification has simplified the administrative management of the company (since it no longer needs to manage this material under the category of "waste manager") and has reduced costs associated to waste management (related to the transfer, bail and documentation of waste). The company's reuse of stone wool scraps contributes to environmental sustainability by minimizing the extraction of raw materials and reducing landfill disposal, which are also regional goals for public authorities, and are aligned with the overarching goal of fostering a circular economy.

The new law empowers regional authorities to evaluate and approve reclassifications, with a simpler administrative process. This was reflected on the fluid communication between ROCKWOOL and regional authorities in comparison to the previous law. The submission process is now less complex, and questions were answered by e-mail, avoiding conventional communication tools which involve other agencies and slow down the process. The by-product declaration of stone wool scraps approved in the region of Navarra will follow a process to expand this classification at national level. If approved, any region of Spain will be able to use stone wool scraps as by-products.

The successful approval of stone wool scraps as a by-product may encourage other companies to follow this example and look for ways to valorise materials that would otherwise be considered "waste", many of which go to landfill disposal. Furthermore, it helps architects and construction companies to get any of the several certifications for sustainable construction, such as: BREEAM. (Building Research Establishment Environmental Assessment Method); LEED. (Leadership in Energy and Environmental Design); Green certificate (Evaluation of efficiency of building sites).



# 6. Sustainability Jam

The sustainability Jam consisted in a discussion session, facilitated by Kristan Birkegaard, CEO of the Danish enterprise Birkelink APS, on the evaluation, gaps and limitations for the valorisation of inert and inorganic waste in the project regions. The Jam offered an opportunity to brainstorm on the aims and scope of the project; which level of regulation to tackle; whether to target construction or industrial waste, or both; what can Navarra learn from other regions to improve its policy instrument, etc.



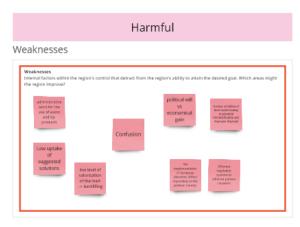
As a base for debate, a presentation was given showing the evaluation that stakeholders from Navarra made some weeks in advance of the different policy instruments in place in the region. Later on, the discussion was fed by examples of challenges and opportunities for inert and inorganic waste in Denmark. It emerged that the Danish approach to INERTWASTE consists in a public-private co-creation process, focused mainly on high level disassembly (supply) to new showcase-buildings in 2027.

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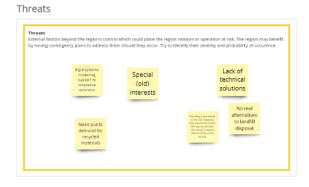


# 7. SWOT analysis









# 7.1. Strengths

The following strengths have been highlighted:

- Construction waste could be a no-cost raw material
- A clear demand of raw material opportunity for reuse and recycling
- A part of the new economy even though it is biobased
- Network and knowledge between the countries
- Strong support from EU Commission and EU Directives and regulations
- Nowadays companies know how to recycle inerts, they have the minimum equipment to crush, screen, clean the material and reuse
- Clear needs and political commitment on the issue

#### 7.2. 7.2 Weaknesses

Regarding internal factors within the region's control that detract from the region's ability to attain the desired goal, the following has been identified:

- administrative work for the use of waste and by-products
- Low uptake of suggested solutions and low level of valorisation of the inert

- political will vs economical gain
- Unclear definition of inert waste leading to potential misclassification and improper disposal
- The implementation of European directives differs depending on the partner country, with different regulation systems in different partner countries

#### 7.3. Opportunities

Some opportunities have been mapped:

- Arrival of new actors, specialised in research, engineering and work on recycling
- Meeting with other communities about the waste in collaboration with the Government of Navarra is a big opportunity
- Showcasing practical cases that provide valid solution
- Finding technically and economically viable alternatives to storage and backfilling
- Chair on circular economy
- Have a global territorial strategy in terms of circular economy
- Cost reduction for the management of waste (sent to landfil)
- Forcing the speed of the change by copying legilsation and policies

In addition, existing regulatory frameworks were mentioned:

- Navarra Zirkular public-private initiative
- ERDF and regional waste fund
- National law 7/2022, Art. 4, 5, 3, 4 (carrying out tests exempt from authorization)
- Regional law 14/2018: tax on landfill disposal

#### 7.4. Threats

Threats include:

- Rigid systems hindering support to innovative solutions
- Special (old) interests
- Need public demand for recycled materials
- Recycling is sometimes more CO2 impacting than natural extraction! We have to consider the saving of natural resources has a CO2 impact
- No real alternatives to landfill disposal
- Lack of technical solutions

#### 7.5. Conclusion

The SWOT analysis shows that, for the regional transition to more circular and sustainable management of inert and inorganic waste to take place, the sharing of knowledge and

good practices among regions, as well as the support and willingness to learn from local and regional initiatives from the European Commission side, are key points of strength. Moreover, companies in the C&D sectors have the necessary equipment to prepare the material for reuse and operationalize this shift, while at the same time the demand for greater recirculation of raw materials is rising. The additional economic and administrative burden that might derive from reuse and recycling of construction materials instead of using raw ones is a barrier that could hinder the shift. To this adds the policy fragmentation on the issue among different EU member states and the often-unclear definition of inert waste.



# 8. Peer review: How to address ERDF Programme of Navarra 2021-2027 with experiences from partner regions

During the second day of the TLJ, the partners from Navarra took the opportunity of having experts present to inquire about how Navarra can improve its ERDF programme 2021-2027. The Navarra ERDF programme is the policy instrument that the region has committed to enhance within the INERTWASTE project framework, so suggestions for improvement based on the experience and knowledge of the entities present in the meeting were welcomed.

Firstly, Navarra provided context for its ERDF 2021-2027 programme. One aspect highlighted was the fact that it is the first time that the ERDF includes the word "waste", which is an opportunity to develop the field of waste valorisation in the programme. Specifically, the action that allows for the recovery and restoration of degraded spaces was mentioned. This action involves restoring spaces degraded by former extractive activities using recycled aggregate and inert waste, without any impact on human health and the environment. The attendees were asked about: the types of inert waste that could be used in this action; the possibility of expanding this action to include inorganic non-hazardous waste; and whether any partner regions have funded similar projects.

Regarding the valorisation of inert or inorganic waste in ERDF programmes from different regions, some questions were raised, such as: whether waste is a priority in other ERDF programmes; whether

the present regions have used the ERDF programmes to fund waste projects; and how they believe the valorisation of inert and/or inorganic waste could be included in the ERDF programmes.

The objective of the discussion was to gather the experiences of partner regions in order to introduce improvements to the Navarrese target policy instrument in INERTWASTE, the ERDF. All the regions represented in the project (from Denmark, France, and Slovenia) provided their insights on how this issue could be addressed.

Among the feedback received, it was emphasized that allocating budget for research is essential. Governments do not have all the solutions to the various challenges, especially since the term "waste" is being included in the Navarra ERDF programme for the first time. Therefore, conducting research is crucial. Increasing the budget for calls targeting larger companies, where their criteria can be requested and an Action Plan can be developed, was suggested as a possibility.

Another perspective suggested that, at this stage, the focus should not be merely on obtaining research results, but rather on a preliminary step. It was recommended to also include organic waste and to first create an inventory of industrial waste.

Another viewpoint proposed that the first step should involve setting clear objectives of what needs to be achieved. It was suggested to consult private consultants and make a pre-analysis of the global, national, and regional situation before initiating research. However, some expressed concerns about the difficulty of conducting a pre-analysis or exchanging views with consultants, as their contributions should have already been included in the Navarra ERDF programme document.

Overall, the comments and contributions from the different regions were greatly appreciated, as they provided valuable insights and suggestions to progress on the improvement of the ERDF 2021-2027 programme of Navarra.

# 9. Study visit

During the last day of the TLJ, the host partner took all guest organisations and regional partners on a study visit to the Acciona biomass plant in Sanguesa, twenty minutes bus drive away from Pamplona. The Sanguesa biomass plant is one of the 4 biomass plants in Spain, converting agricultural straw into electricity through combustion. The plant has been in service since 2002 and the generated electricity covers 5% of the demand in the region. Every year, the plant produces an average of 200 GWh, equivalent to the electricity demand of around 60,000 homes.





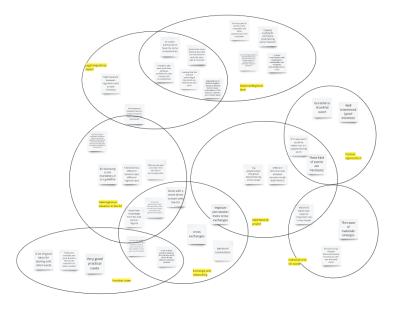
The key aspect of interest for INERTWASTE partners was the use of slag, the inorganic residue generated from the biomass combustion, which represents 83% of the company's waste. During the field visit, it was explained that the slag finds several, simultaneous uses:

- for recovery of degraded areas, neutralizes acid soils and providing potassium for fertilizing;
- for manufacturing of insulating material, as fire-retardant and insulation;
- as fertilizer, given its high content of potassium;
- for construction, given the good mechanical properties, replacing quarry material on roads;
- for cement production.





#### 10. Lessons learnt



Lessons learnt from this TLJ belong to two main areas: the thematic focus / content and the practicalities of organising and attending such an event. Two tools helped identify these lessons learnt: an interactive post-it session during the TLJ (translated into an online Miro board) and an evaluation survey post-TLJ.



#### 10.1. Content

Regarding the content, the TLJ helped participants acknowledging the heterogenous situation in the EU. Despite a common approach and direction at EU level, the reality is different in the Member States and situations vary when it comes to the green transition in general, the actual processing of waste, the inert waste laws, levels of competencies. Participants agreed on the need for an EU-based regulatory framework. The TLJ helped understanding the problems faced in other territories. This being said, similarities can be found at national or regional level in the fact that there is often a fragmentation of actors and the need to bring together public authorities and companies (industrial, producers, etc.). Also, as a general trend, it has been noticed that the reuse of material emerges, public policies should promote valorisation of waste and advance as the same time as business, and finally that a strong interaction between construction and demolition waste is yet to be found. The TLJ showed also that knowledge and experience as well as good ideas for dealing with inert waste can be found in each country and transferred to other contexts, for example to build new regulations.

#### 10.2. Practical aspect

This is connected to the lesson learnt from a practical aspect. Participants understood the importance of exchange and networking, to building cross exchanges and personal connections to advance on one's own territory. Thus, this first TLJ is a very good base on which building the upcoming ones and the following point has to be taken into consideration following answers provided to a satisfaction form after the TLJ.

- Two days is the perfect length for a TLJ, according to nearly all respondents (8/9)
- It is better to have only in-person TLJ (compared to hybrid) and to dedicate some time for break-out/smaller groups to encourage discussion
- Extensive work has to be carried out before the TLJ to collect information on who
  will be participating (area of expertise/activity), prepare the stakeholders, share
  presentations in advance, prepare some discussion topic, know what the region
  would like to improve.
- The most relevant sessions for participants were the study-visit, the presentations of regulatory frameworks during the peer workshop, the evaluation of Navarra ERD and the Good Practices during the peer workshop.

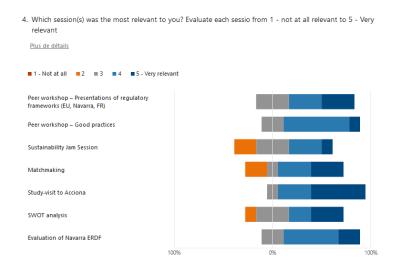


Figure 1 Answers to question 4 on the relevancy of sessions

- The Sustainability Jam session was the weakest point (although evaluated at an average of 3.5/5). More exchange and dynamic discussion could be beneficial. For this, a solution could be to share the topic in advance (so questions can be prepared), use a more focused methodology, and to separate into smaller groups to enable everyone to share his/her opinion.
- In general participants found interesting all the good practices presented although one would appreciate more technical details in the presentation (and thus more time for each practice). Recyclon is the good practice that interested the most participants, they were less interested in Termit. The session was important for participants to compare actions, provide further guidance on the importance of terminology harmonization.

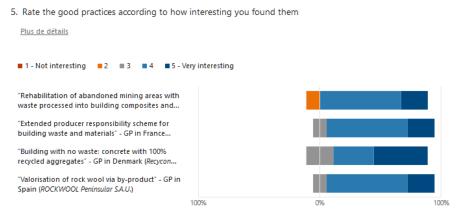


Figure 2 Answers to question 5 on the interest of the good practices presented

 Regarding the participation of stakeholders, partners agree that it is a plus (even necessary to widen opinions) to have them on-board, although they could have been more active in the discussion during the sessions. The three stakeholders who gave feedback made relevant contacts during the TLJ, felt they had the opportunity to express their ideas and opinions, felt enough involved and increase

- their knowledge or capacities. Two of them will contact other participants (one for project ideas).
- Project partners all increased their knowledge or capacities after this TLJ.
   Additional information would be welcome on the comparison of regulations between regions and how each region implements common EU tools (e.g. ERDF) and inert waste policies.

#### 11. Conclusion

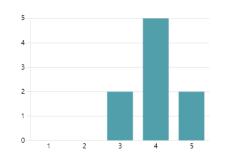


Figure 3 Answer to the question: "How did this TLJ meet your expectations" (1 lowest, 5 highest)

The feedback received from participants shows that this first TLJ was a success as it greatly met their expectations (with an average of 4/5). With no hesitation, stakeholders would recommend attending this TLJ to another company and partners appreciated the quality of the organisation, making it an enriching event from technical and personal point of view. When asked to describe the TLJ in one word, participants used the following: super, informative (x2), great, interesting, potentiality, hopeful, fun and communication.

The TLJ was a very good start for the project, the strong spirit of exchange key to Interreg Europe projects clearly marked the two days at several levels. Partners shared experiences, challenges, contacts to continue discussions beyond the TLJ.

Discussions highlighted the heterogeneous situation at all levels. Despite the ambition to streamline efforts in one direction at EU level, there are different national and regional systems and legal frameworks that influence the management of inert and inorganic waste. Situations in partners' territories are different and present local specificities such as fragmentation of the municipal level, public entities with different competencies, ways of processing waste. Nonetheless, some practices presented during the TLJ could be relevant in other contexts. Participants experienced directly an example of valorisation of ash and slags during the study visit to the biomass plant of Acciona in Sangüesa.

Heterogeneity is one of the challenges for the INERTWASTE project and strategy, but also a source of inspiration. After these two days, stakeholders and partners reached some first conclusions and ideas for dealing with inert waste ranging from capacity building for institutions implementing policy measures to involving more companies and other departments from companies, finding the right balance between regulation and private initiatives, how to reduce costs of the best environmental option and make it competitive compared to the standard ones.