



# **JUST TRANSITION PLATFORM MEETING - COAL REGIONS IN TRANSITION VIRTUAL WEEK**

16 - 19 NOVEMBER 2020



# **ADDRESSING THE EMPLOYMENT AND SKILLS NEEDS FOR A JUST TRANSITION**

18 November 2020



# Pact for Skills

Working together

Anna Nikowska, Unit VET, Apprenticeships & adult learning, DG EMPL

# WHY?

- 50 million low-qualified adults
- 70% of companies report that lack of skills hampers their investment
- 15% of business leaders communicate about upskilling initiatives







# HOW?

All relevant stakeholders



Concrete commitments

# JOINING THE PACT

1. Sign up to the Charter and its key principles
2. Translate engagement into concrete commitments
3. Monitor commitments





# KEY PRINCIPLES OF THE CHARTER

1. Promoting a culture of lifelong learning for all
2. Building strong skills partnerships
3. Monitoring skills supply/demand and anticipating skills needs
4. Working against discrimination and for gender equality and equal opportunities



# THE PACT CAN BE IMPLEMENTED BY:

Individual  
companies or  
other private  
or public  
organisations

Regional or  
local  
partnerships

Industrial or  
cross-sectoral  
partnerships





# SUPPORT UNDER THE PACT



EU funding



# ALREADY WITH US

- Automotive
- Microelectronics
- Aerospace and defence





[ec.europa.eu/social/PactforSkills](https://ec.europa.eu/social/PactforSkills)

[EC-PACT-FOR-SKILLS@europa.eu](mailto:EC-PACT-FOR-SKILLS@europa.eu)



**THANK YOU**





# Clusters and Innovation ecosystems as driving force in recovering territories and employment in the Just Transition

Dr. Santiago Cuesta-López

**ICAMCYL**

Centro internacional de materiales avanzados y materias primas  
International center for advanced materials and raw materials



Dr. Santiago Cuesta Director General

FUNDACION ICAMCYL:

Centro internacional en materiales avanzados y materias primas de Castilla y León

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**BUILDING THE SUSTAINABLE FUTURE OF  
THE EU MINING TERRITORIES,  
CREATING RESILIENCE IN RAW  
MATERIALS AND ASSEMBLING THE  
SPANISH MINING INDUSTRY**

**IBERIAN SUSTAINABLE MINING CLUSTER**

## HEADQUARTERS

Polígono Industrial El Bayo, 19  
24412 Cubillos del Sil (León), SPAIN

## LEON OFFICE

Parque Tecnológico de León, Edificio  
de Usos Múltiples  
C/ Julia Morros S/N Primera Planta,  
Oficinas 106-108  
24009 Armunia (León), SPAIN





AXIS A. PROMOTING THE ECOLOGICAL TRANSITION OF ECONOMIC SECTORS

AXIS B. SPECIFIC SUPPORT TO INDUSTRIAL STRATEGIC SECTORS

AXIS C. REDUCING INEQUALITY AND SUPPORTING CONSUMERS

AXIS D. REACTIVATION

AXIS E. ACTIVE POLICIES ON GREEN EMPLOYMENT AND SOCIAL PROTECTION

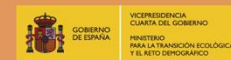
AXIS F. PROFESSIONAL GREEN TRAINING

AXIS G. RESEARCH+DEVELOPMENT+INNOVATION PROMOTION

AXIS H. IMPROVING KNOWLEDGE ABOUT THE IMPACT OF THE ECOLOGICAL TRANSITION IN EMPLOYMENT

SPAIN A REFERENCE IN THE JUST TRANSITION METHODOLOGY

ESTRATEGIA DE TRANSICIÓN JUSTA



MARCO ESTRATÉGICO DE ENERGÍA Y CLIMA



Climate change is caused by an energy model based on fossil fuels and, to curb it, it must be radically transformed into one based on energy efficiency, energy from renewable sources and the incorporation of intelligence into energy consumption.

Spain, due to its meteorological and geographical characteristics, is in a privileged position for the development of renewable sources. Its economy is well positioned to take advantage of opportunities from these renewable sources, distribution networks, energy efficiency, rehabilitation of buildings or desalination, it has a business fabric, human resources and specialized and competitive research centers.

The energy transition is based on advances in some main axes such as: energy generation, sustainable mobility and energy efficiency in buildings. There is broad agreement that the transition in power generation is already started and advanced, while in sustainable mobility and rehabilitation it is still in the very early stages. However, each area will require specific transition plans because they must respond to very different economic and institutional realities.

The energy transition must be carried out on the basis of a broad agreement between the agents involved and on the basis of social dialogue.



GOBIERNO  
DE ESPAÑA

VICEPRESIDENCIA  
CUARTA DEL GOBIERNO

MINISTERIO  
PARA LA TRANSICIÓN ECOLÓGICA  
Y EL RETO DEMOGRÁFICO

**#ESTE  
VIRUS  
LO  
PARAMOS  
UNIDOS**



# SPANISH STRATEGY OF THE JUST TRANSITION

Taking profit of employment opportunities to minimize the impacts



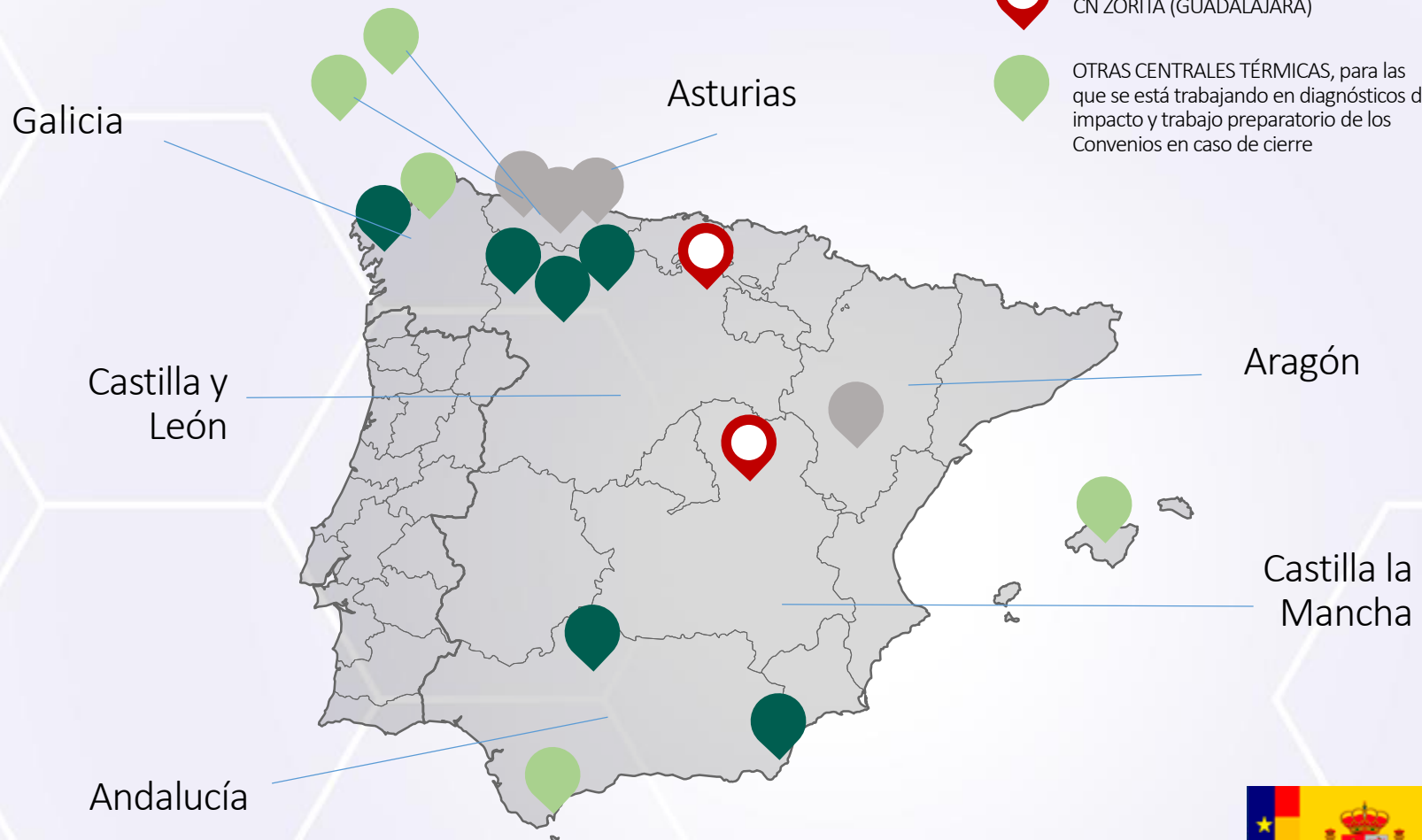


# URGENT ACTION PLAN

CONVENIOS ACTUALES

CN. GAROÑA (BURGOS)  
CN ZORITA (GUADALAJARA)

OTRAS CENTRALES TÉRMICAS, para las que se está trabajando en diagnósticos de impacto y trabajo preparatorio de los Convenios en caso de cierre







European Commission



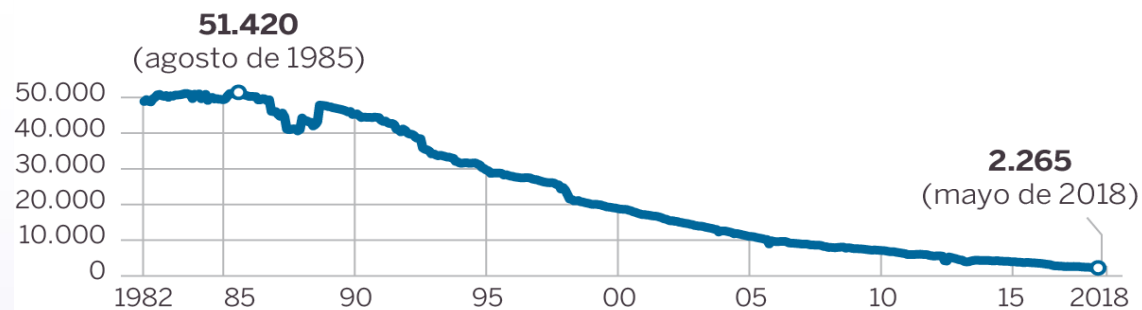
Fuentes: Carbuniión, Ministerio de Trabajo, Red Eléctrica de España y Comisión Europea. EL PAÍS



fuelle: Diario de León

### EMPLEO

Trabajadores en el Régimen Especial la Minería del Carbón



Fuentes: Carbuniión, Ministerio de Trabajo, Red Eléctrica de España y Comisión Europea. EL PAÍS

FROM LIGHT TO DARKNESS IN LESS THAN 50 YEARS  
 Loss of close to 50.000 jobs !!





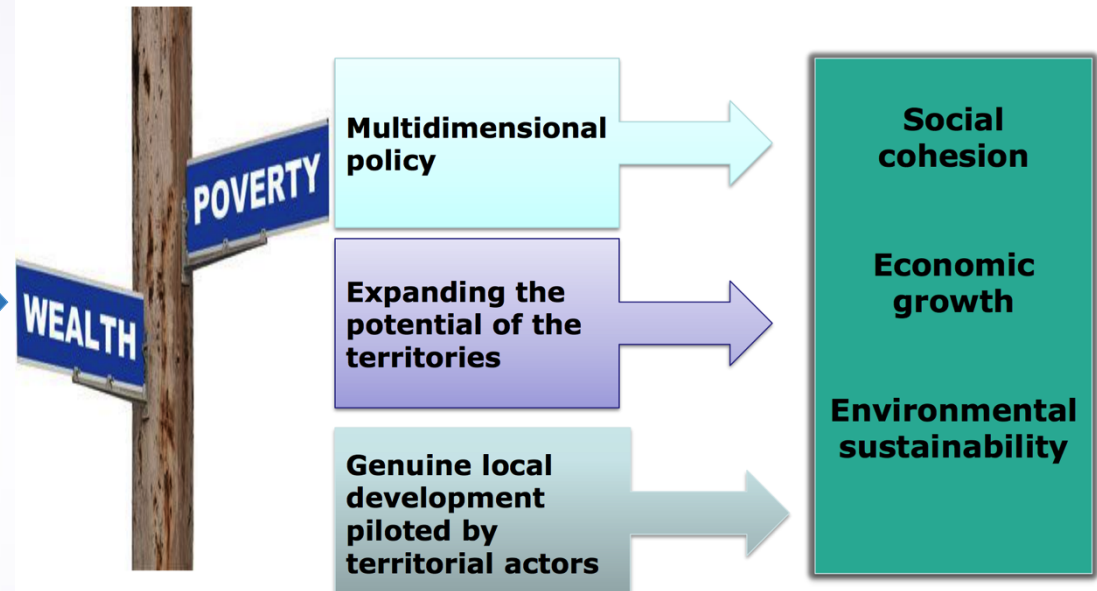
SUSTAINABLE DEVELOPMENT  
RECOVERY OF REGIONS – CITIES –  
LANDSCAPES - SOCIETIES

ENDOGENOUS  
RESOURCES  
HERITAGE

*Territorial approach  
to local development*

REGIONAL SMART  
SPECIALIZATION

## What is the TALD?





As part of its 'Europe 2020' strategy, the EU has been encouraging regions **to develop Smart Specialisation Strategies(S3)** since the beginning of this programming period. The aim is to **direct their investment efforts towards growth-oriented innovation**. As such, it appears as *"a valuable tool to tackle the innovation gap, and boost jobs and growth in Europe."*

Introduced as an ex-ante conditionality in the 2014-2020 programming period of Cohesion Policy, the **development of smart specialisation strategies is currently a prerequisite to receive funding from the European Regional Development Fund (ERDF)**.

Linking the development of S3 to the allocation of ERDF funding has improved the quality of the implementation of these strategies across Europe.

*Connecting research and industry "The main goal of a smart specialisation policy is to concentrate resources on the development of those activities that are likely to transform effectively the existing economic structures through R&D and innovation."*

*Dominique Foray, École Polytechnique Fédérale de Lausanne*

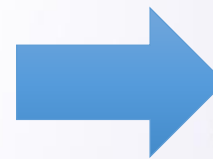
*Mikel Landabaso of DG Regio, writing in 1993: "..technology cannot be expected to assist in resolving the problems of competitiveness unless it functions as part of a system which is institutionally and organizationally capable of adapting to changing demands on a continuous basis" - (Landabaso, 1993)*

S3  
EU investment &  
development funds

Oriented Innovation  
Industrial Innovation  
hubs  
Creating Innovation  
Ecosystems

Improving SMEs  
competitiveness  
Boosting the core EU  
economical engine  
Redefining employment  
and worker skills

***Our  
success***



*Connecting with the regional system and its associated industrial network. Looking abroad for good lessons learnt. Identifying and connecting opportunities at similar ecosystems of innovation*





European Commission

### Regional strength

(sectoral and cross-sectoral cluster mapping)

### Regional priorities

(research and innovation policy priorities)

### Regional partners

(cluster organisations, European Partnerships)

European Cluster Observatory



European Cluster Collaboration Platform



Clusters as accelerators for innovation & industrial change



Cluster Excellence Programme



Inter-regional & international cluster cooperation

Capacity-building

## 1. Upgrading SME competitiveness in mining to industrial services?

- role of clusters, digitalisation, access to finance, piloting, and technologies?

## 2. Sustainability of mining?

- circular economy, industrial symbiosis, recovery-reuse, reduce pollutants, and social licensing?

## 3. Inter-Regional Business Hubs?

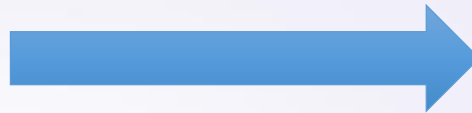
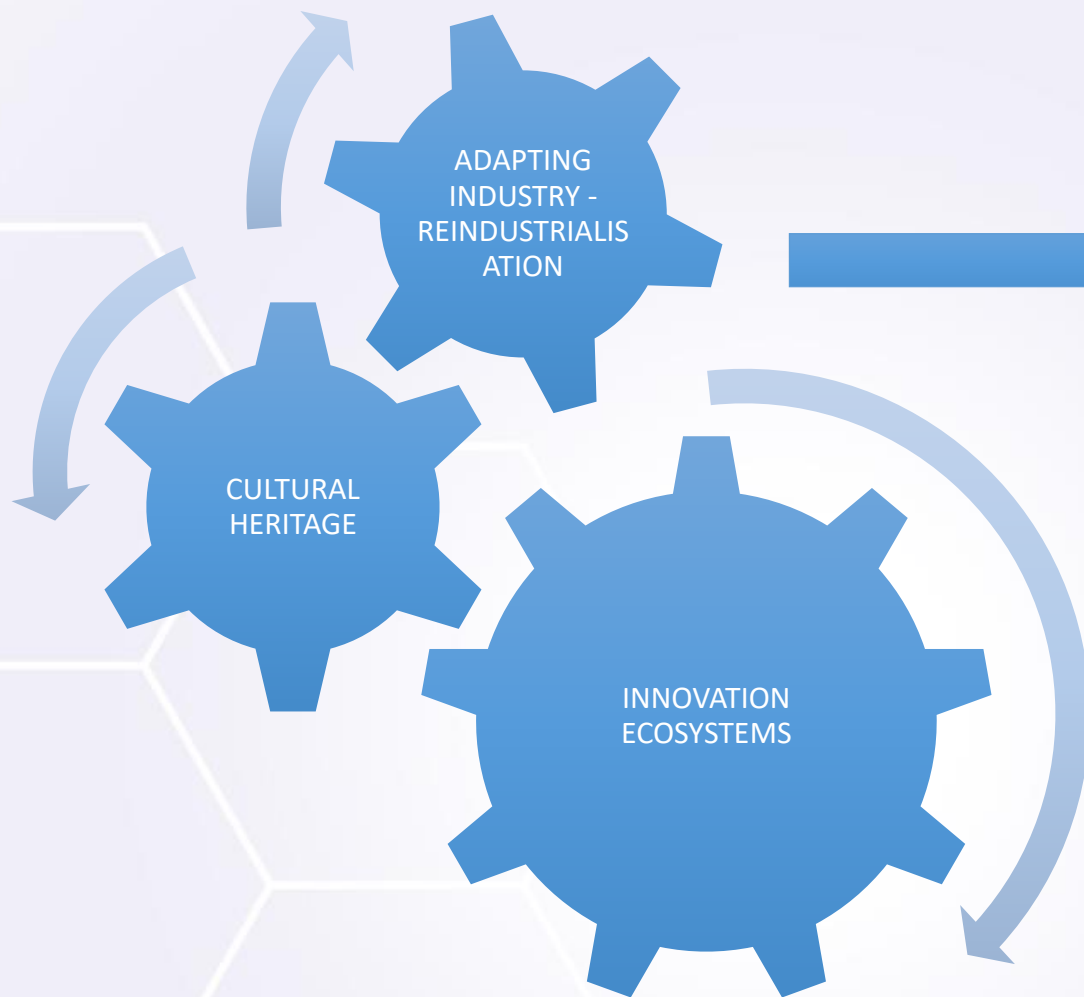
- Potential for public funding/financing of SMEs?

## 4. Social and industrial related value chains?

- highly synergetic raw materials value chains?

## 5. Value chain elements?

- digitalisation of the industry related to the development of the testing centre or the automation of mining?



RECOVERING MINING  
COMMUNITIES





## Key existing elements:

- Framework for an innovation ecosystem
- Endogenous richness
- Human capital of value
- Collection of SMEs with skills from a former industrial scenario

CLUSTERS ARE THE KEY VEHICLES

USE INNOVATION ECOSYSTEM

GIVE THE SMEs through the CLUSTER an INTERNATIONAL DIMENSION

USING INNOVATION ECOSYSTEMS - THE BENEFITS OF THIS SCENARIO

INNOVATION ECOSYSTEMS: Strong innovation ecosystems are needed to profile the region as a hotspot for innovation, to attract industrial investment and to develop the regional economy.

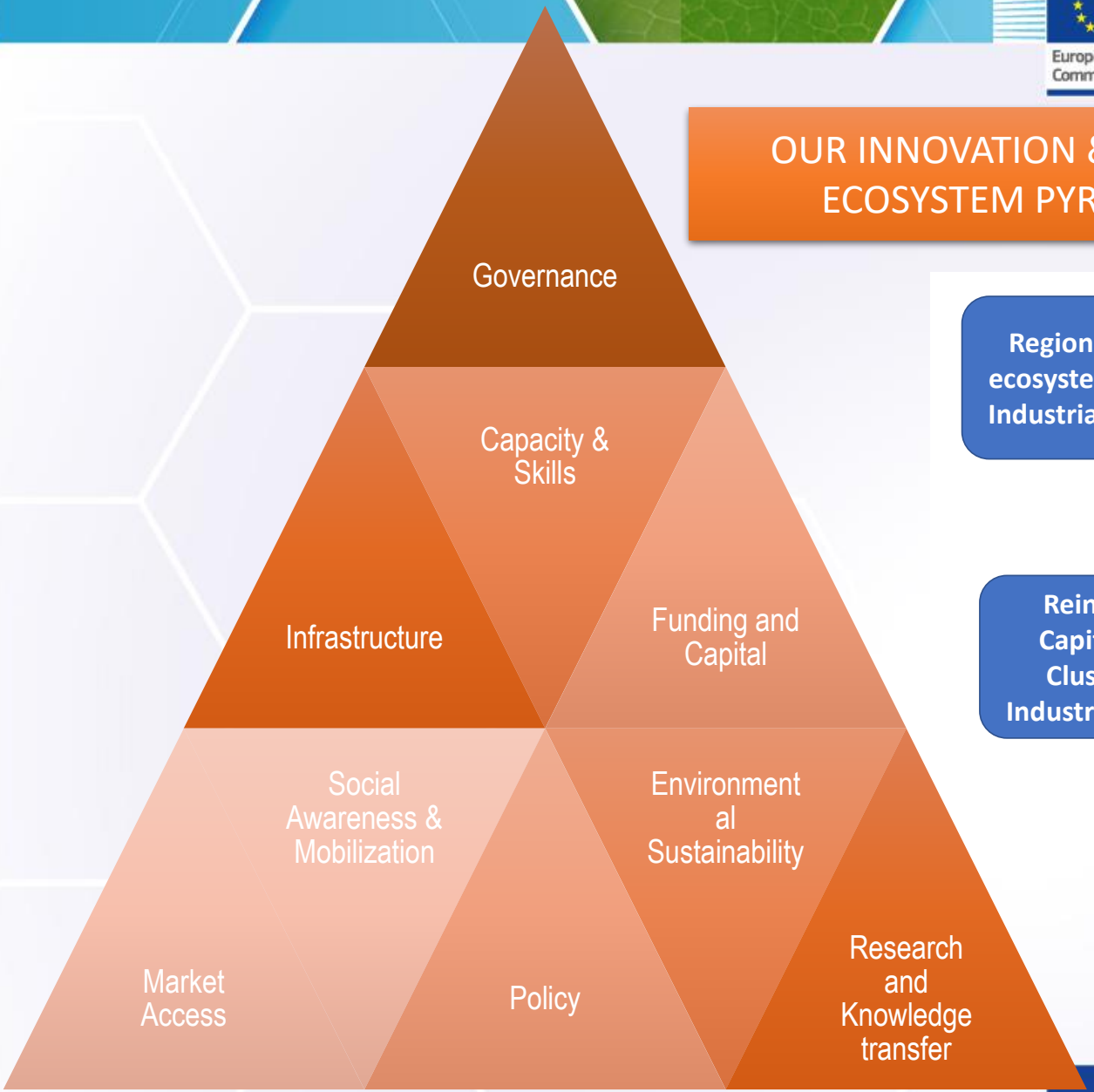
Interregional collaboration and the regional ecosystems will foster European-wide innovations and establish (inter)regional innovation ecosystems. Further, it provides risk sharing by bringing together all stakeholders along the value chain from academia & industry.

Innovations enabled by interregional collaboration and the regional ecosystems will result in reduced costs for technology and hence increased development, and deployment.



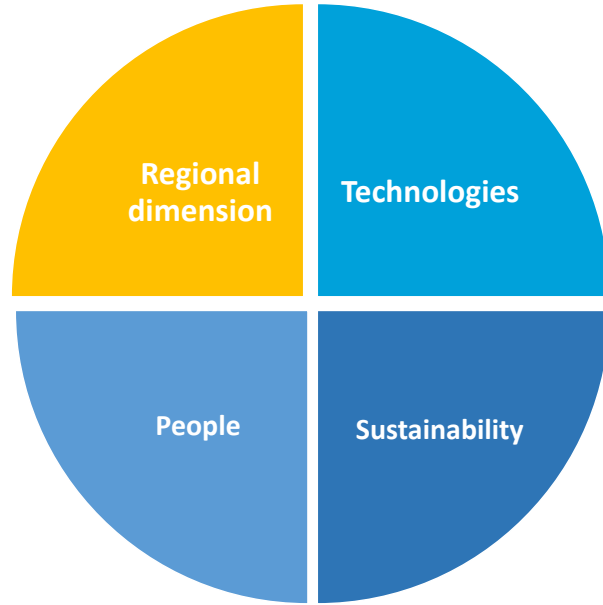


# OUR INNOVATION & SOCIAL ECOSYSTEM PYRAMID



Regional Innovation ecosystems as pillars of Industrial development

Reinforce Human Capital, Skills and Cluster policy for Industrial development

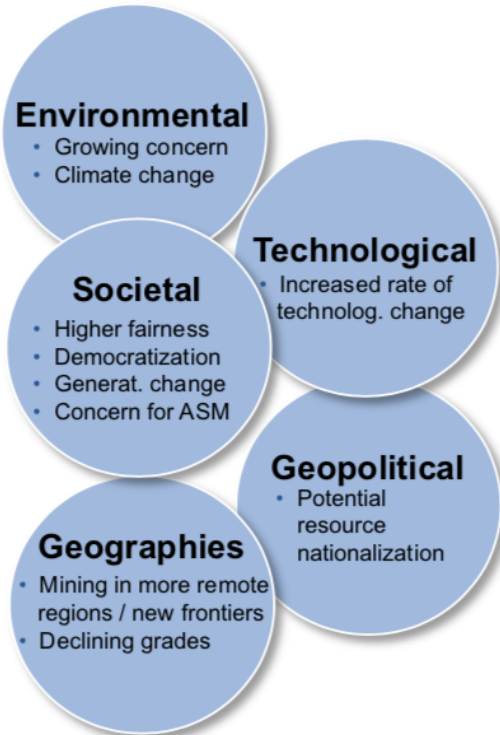


Focus on Industrial uptake of Enabling Technologies , invest in pilot plants & demonstrators

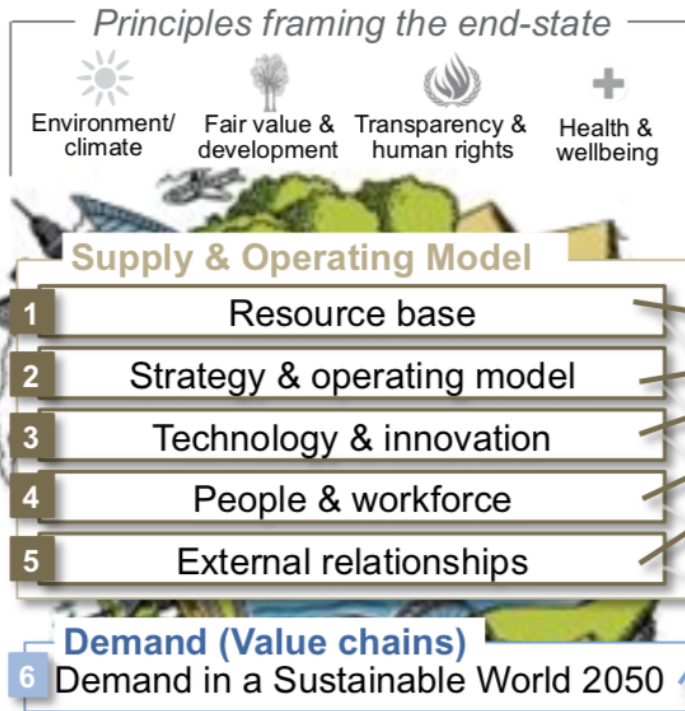
Use the “challenge approach” to combine industrial development and sustainability

# SUCCESS ELEMENTS IN OUR INNOVATION ECOSYSTEM

## Drivers of change

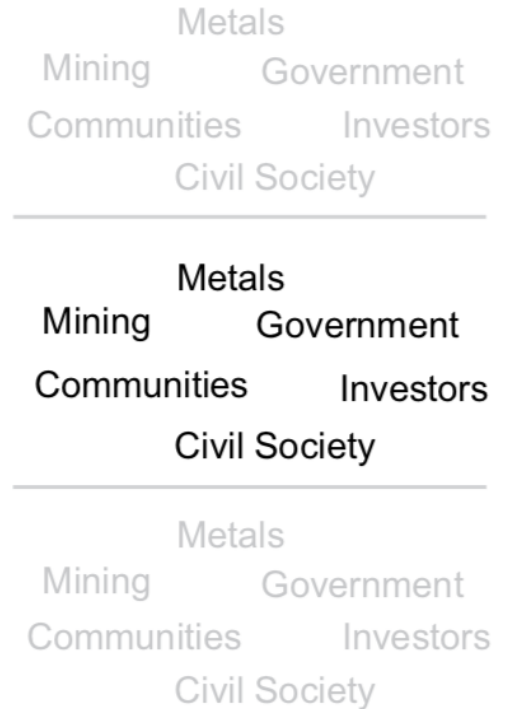


## Themes of transition



## Scenarios on the future of resources

## Roadmap/actions





Just transition generates a mix of policies to protect the environment, encourage biodiversity, improve energy efficiency, and reduce reliance on fossil fuels, with the protection of nature and waste management.

'GREEN JOBS'

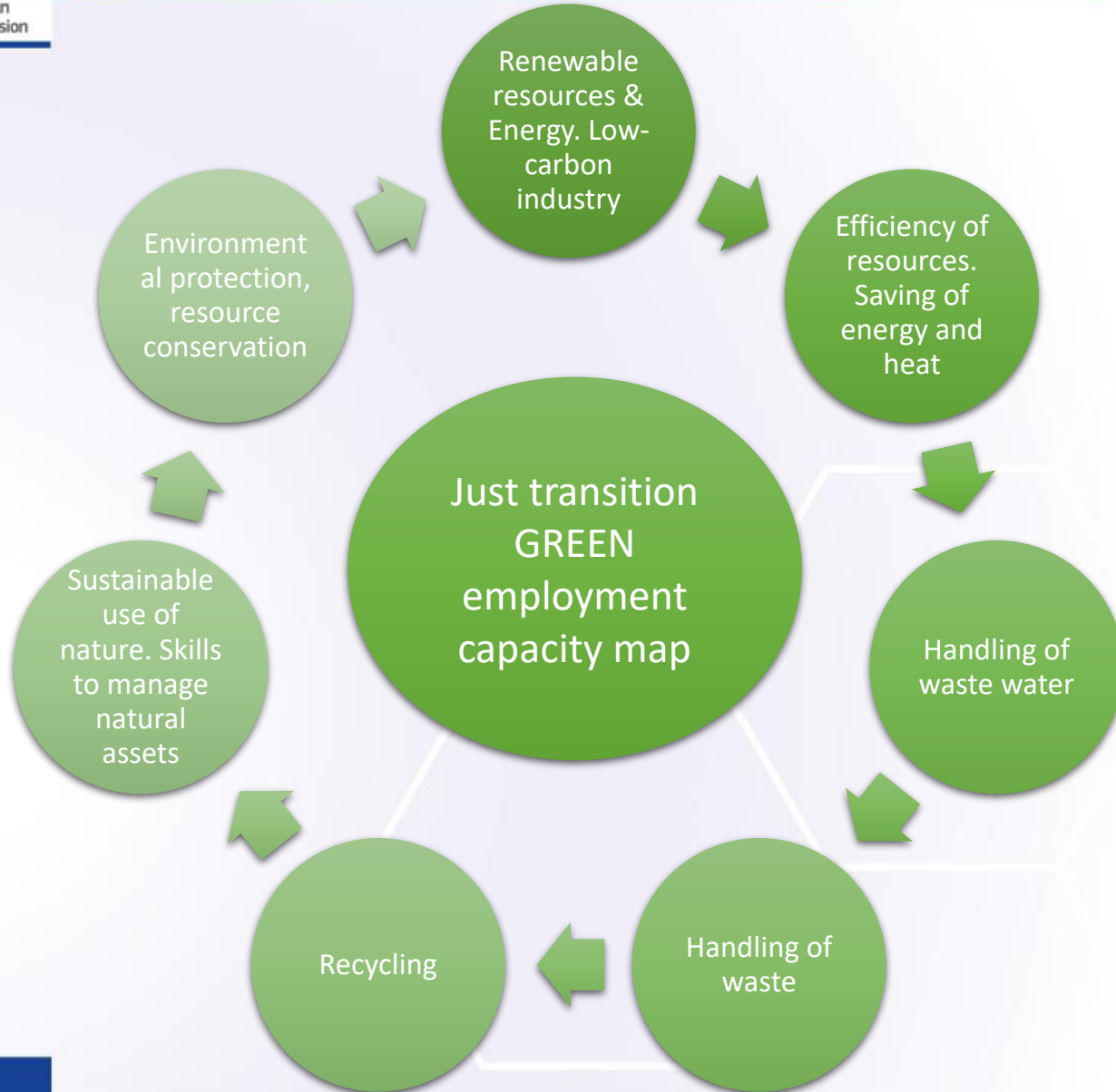
NEED OF CAPACITATION



TRANSFORMATION OF JOBS 'TRANSPOSITION'

There is a need of knowledge transfer into training for adoption of new skills. Clusters usually gather the full value chain in one or several sectors, involving providers, adopters and multidisciplinary experts capable of train workers on the new skills.

Clusters as Innovative Business Associations are the correct vehicle for specialized and multidisciplinary training

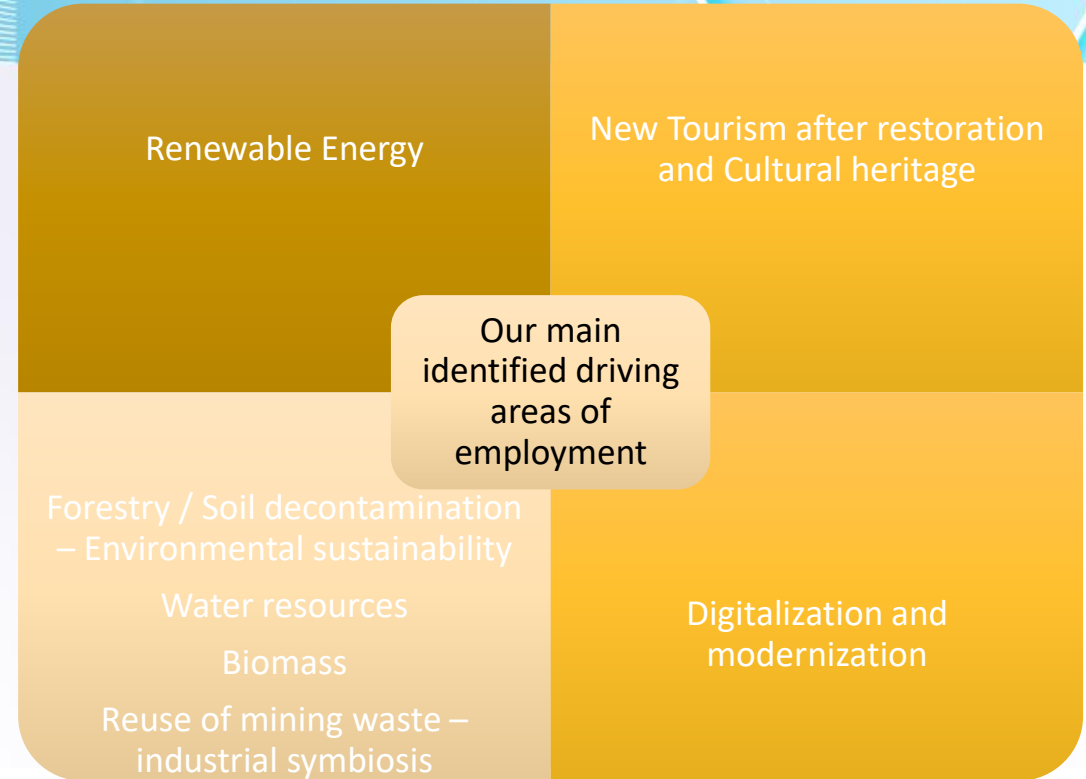




**CHANGING OCCUPATIONS:** Existing occupational classifications are being modified thus requesting from the workers different skills or an adaptation

**NEWLY EMERGING OCCUPATIONS:** Derived from the adoption of Just Transition and Green Deal policies. Deep knowledge of technology is needed

**NEW SKILL NEEDS ACROSS OCCUPATIONS:** In some areas there is a need of existing skills to be supplemented. Cross fertilization and multidisciplinary training must be the axis of the jobs Just transition





Brussels, 3.9.2020  
COM(2020) 474 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**Critical Raw Materials Resilience: Charting a Path towards greater Security and  
Sustainability**



SECURING ACCESS TO CRITICAL AND  
SUSTAINABLE RAW MATERIALS AND  
ADVANCED MATERIALS FOR THE EU  
INDUSTRIAL ECOSYSTEMS

**Study on the EU's list of  
Critical Raw Materials  
(2020)**

Final Report

Critical Raw Materials for  
Strategic Technologies and Sectors  
in the EU

*A Foresight Study*



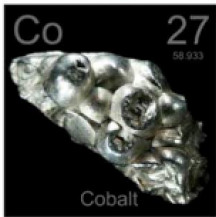
European

# Currently -> Towards strategic mining

83 Coal deposits and tailings -> under identification for REE, graphyte amd other strategic minerals

10 Fe / 8 W / 6 Hg / 5 Cu

Others: Pb, Zn, Co, Si, Graphite and Lithium



León = biggest coal and anthracite reserve in Spain (1.341 million Tn)

Slate: Spain 1st worldwide market, with León covering 33% of national production

Castilla y Leon has 10% reserves of W of the World !

Biggest Uranium EU reserves in Salamanca (CyL)

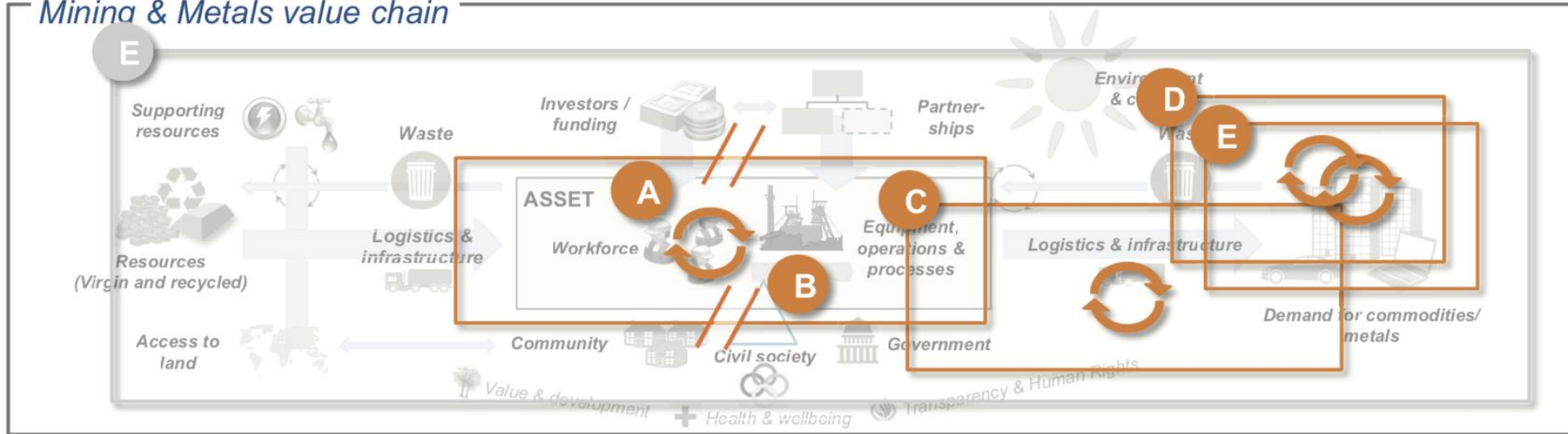
MINAS ABANDONADAS O EN DESUSO		MINAS EN ACTIVO		MINAS CON OTROS USOS			
Barrio de Rosos/Mina Carmina	Mercurio	Toreno	Mina carbón Caleyo III/Mina Santa Leocada	Carbón	Boñar	Mina de carbón de Silice	Silice
Mina de mercurio Puerto de Los Sables	Mercurio		Mina de carbón de Peñafrada	Carbón	Barrios de Luna, Los	Mina Salinitas de Miñera	Mercurio
Minería del mercurio del puerto de Tarna	Mercurio		Mina de carbón Grupo Galego	Carbón	Cistierna	Cañtería de la Jageritz	Caliza
Toreno	Carbón		Mina de carbón Grupo Escandal	Carbón	Ercina, La		
Mina de La Valcueva (Camón)	Carbón		Mina de San Luis	Carbón	Anereño de La Ercina		
Mina de Matallana de Toro/Mina "Bardaya"	Carbón		Pozo Matallá	Carbón	Cantera de Barrios		
Mina de Onamo (MSP)	Hierro		Mina de carbón Grupo Torre	Carbón	Lavadero de carbón/Lavadero de Estaban Conral		
Mina de Paradaxosiana	Hierro		Mina de carbón Minax	Carbón	Fabero		
Mina de Paraxosiana	Hierro		Conjunto minería del carbón en Bierzo Alto	Carbón	Pobrado de Diego Pérez		
Mina de Oencia	Wolframio		Valderrueda		Mina de carbón de Jaminas/Antracitas de Lillo		
Mina de Tejedo del Sil	Cobre		Fábrica briquetas Puente Almuhey, ovoides, cok	Carbón	Ponferrada		
Mina Salientes/Mina San Jacinto	Oro		Minas de carbón de Caminayo I	Carbón	Mina de wolframio de Espinoso de Compuado		Wolframio
Mina Victoriano González (Santa Oza)	Carbón		Minas de carbón de Caminayo II	Carbón	Prado de la Guzpeña		
Mina de Victoriano González (Santa Oza)	Carbón		Cargadero de carbón de La Espina	Carbón	Fábrica de cok de Prado		
Mina de Hierros de Fabero/Lavadero de la Recueja	Carbón		Cano abierto San Martín Valdeolapar/Las Lagos	Carbón	Sabero		
Mina La Cazadora	Carbón		Minas de carbón de La Sota de Valderrueda	Carbón	Pozo Herrera I		
Mina de El Escobio	Carbón		Minas de carbón de La Espina/Minas La Pachuca	Carbón	Cantera de caliza de La Herrera		
Mina de La	Carbón		Mina de carbón de Soto de Valderrueda	Carbón	Torre del Bierzo		
Mina de Cargadero Santa Lucía/Socavón Santa Lucía	Carbón		Lavadero de carbón de Taramita	Carbón	Lavadero de Victoria		
Mina del Valle/Grupo Competidora	Carbón		Conjunto minas de carbón de Puente Almuhey	Carbón	Villabona		
Mina de Cifra	Carbón		Villabona		Mulleres de Roscosro o Hijos de Baldomero Garcia		
Mina del carbón Cuñera-Matallana	Carbón		Mina Faxalido/MSP Grupo Faxalido-San Miguel	Carbón	Conjunto de la minería del carbón en la Cuenca de Villabona		
Mina de Montearreas W/Mina Carmelita	Wolframio		Mina de carbón Grupo Lumao	Carbón			
Mina de Montearreas E/Mina Ponferradina	Wolframio		Mina de carbón Grupo Paulina	Carbón			
Mina de Sata/S Mina de wolframio	Wolframio		Pozo Calabro	Carbón			
Mina de Grupo Competidora	Carbón		Mina de carbón de Rioldorados	Carbón			
			Grupo Bosada MSP/Grupo Peñas-Boisada	Carbón			
			Pozo María MSP	Carbón			
			Cargadero de carbón Pozo Calderón (Pozo Vilager)	Carbón			
			Diminuta ventilación de Orallo	Carbón			
			Piano inclinado de Villaseca	Carbón			
			Cargadero de carbón de Villaseca	Carbón			
			Mina de carbón de Lumajo	Carbón			
			Vilagatón	Carbón			
			Fábrica de Ovoides	Carbón			
			Villamanán				
			Metafísica de Villamanán/La Fábrica	Cobalto			
			Mina de cobre de Caceres/Mina del Alendán	Cobre			
			Mina de hierro de Villamanán	Hierro			
			Mina carbón Arbás del Puerto/Mina Carbonia	Carbón			
			Mina de piroxeno de Fontán (Betta de la Tejada)	Piroxeno			
			Lavadero de carbón de Busdongo	Carbón			

Use the richness in endogenous resources, restore the old mining activity and re-train workers for a new era of sustainable raw materials resources





## Mining & Metals value chain



- A** Waste retreatment  
*"Tailings on mine"*
- B** Scrap treatment  
*"Home / new scrap in metals production"*
- C** Recycling (from downstream)  
*"Old scrap"*
- D** Reuse through redesign<sup>1</sup>  
*(within downstream)*
- E** Different ownership models  
*(within downstream and x-value chain)*

- ▶ How will waste be optimized and reused within mine processing
- ▶ How will scrap be collected and reused in metal (component and end-product) production
- ▶ Recycling of materials used in end-industry / final products
- ▶ Design for reuse of components after end of life of product (instead of recycling); reuse could be within or outside same industry
- ▶ Increase of life through different ownership – shared economy, leasing, for-use renting or cross-value chain ownership





Strong and proactive collaboration between the government, the mining industry and educational institutions.

Training and education programmes, apprenticeship programmes, industry representatives teaching at educational institutions. Educational system to collaborate with the industry in training for needed skills

Improving workers skills in this transition of sustainable raw materials resilience requires:

Investing in research and development, and promoting promising start-ups and small companies in the mining sector

Forecasting the types of skills needed by the industry and using this information for providing training and education

Skills certification programmes

### IDENTIFIED ADVANCED SKILLS & JOBS BY OUR CLUSTER ACTIVITY IN RAW MATERIALS RESILIENCE

Advanced Mineral processing and recovery technologies operators

Biodiversity, environmental and sustainability experts

Circular Economy and Circular Economy compliance

Recycling Technologies

Pilot & Processing plants engineers and technicians

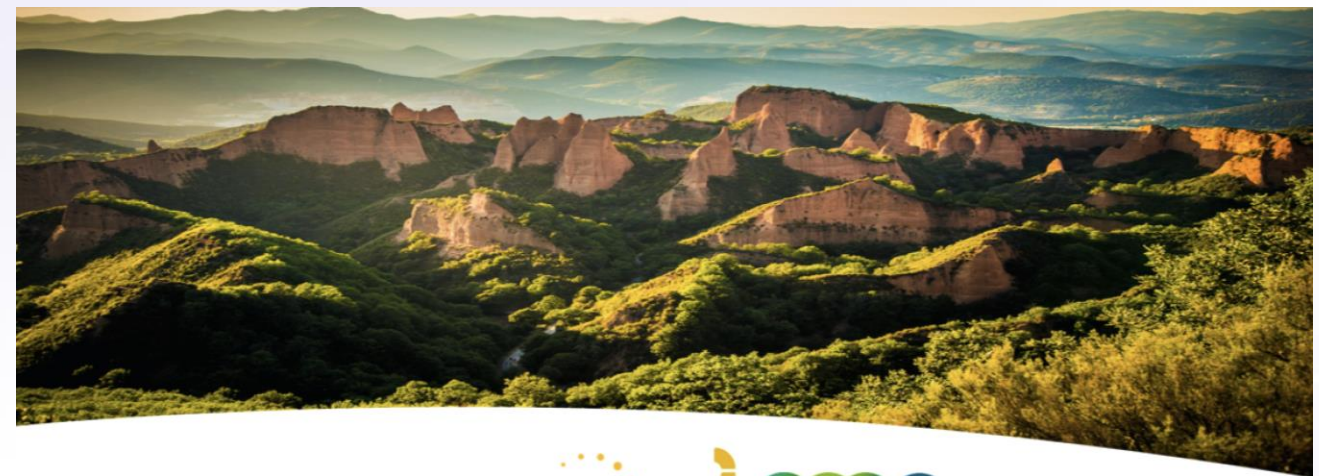
Waste/Water technologists



Thank you for your attention!




Dr. Santiago Cuesta-López  
ISMC Cluster & ICAMCYL Foundation  
Director General



Thank you for your attention

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Presentation by Ludovic Voet, Confederal Secretary at the European Trade Union Confederation (ETUC)