



# Sharing the experience of implementing a Just Transition in Asturias, Spain

**Carlos García Sánchez**  
Director de FAEN

**Patronato y empresas colaboradoras**  
de la Fundación Asturiana de la Energía

## PATRONOS



## EMPRESAS COLABORADORAS



December 15, 2022

## ***FAEN is the Regional Energy Agency of Asturias***

Support to the Regional Government in defining the Regional Energy Strategy

Support to municipalities as a supervisory and independent entity, in energy improvement actions

Supporting councils in Energy and Climate Action

we advise companies and individuals on energy issues

For the general public, dissemination and awareness-raising work on energy efficiency and renewable energies





**Climate change is the greatest challenge of our time. It is an opportunity to build a new economic model**

***One of the most important challenge is the energy transition***






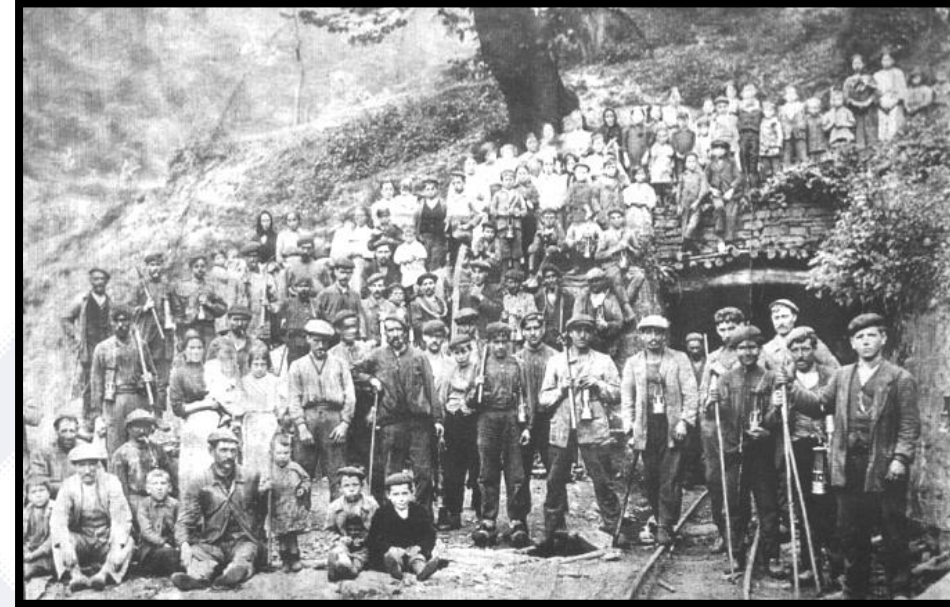


# Asturias: Who we are

- 1.018.784 inhabitants
- Coal Mining, Energy and GHG intensive industry, Urban and Rural
- Around 20% of our regional GDP is based on industry and energy

## 3 transitions:

-  Coal mines closure;
-  closure of coal plants;
-  decarbonisation of heavy industry (steel, cement, chemical, paper...)



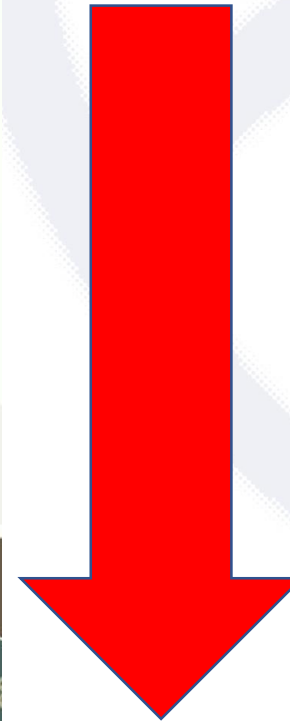
## SCENARIO BY 2030 COMPARED TO 2017

- 👎 Power capacity (MW): -26,4 %
- 👎 Energy generation (MWh): - 54,2 %
- 👎 CO<sub>2</sub> emissions (t CO<sub>2</sub>/year): -96,5 %



***Uncertainty + certain risks: VERTIGO***

# The energy transition in Asturias



CO<sub>2</sub> emissions

Economic activity

Job's lose

Safety and quality supply



# Asturias case

- **Committee to evaluate the impact of energy transition in Asturias.** From October 2019 to today.



**NATIONAL  
MINISTRY**



- **ASTURIAS GOVERNMENT: 12 DG + FAEN**
- **TRADE UNIONS**
- **ASSOCIATION OF EMPLOYERS**
- **COUNCILS**
- **UNIVERSITY AND RESEARCH CENTERS**

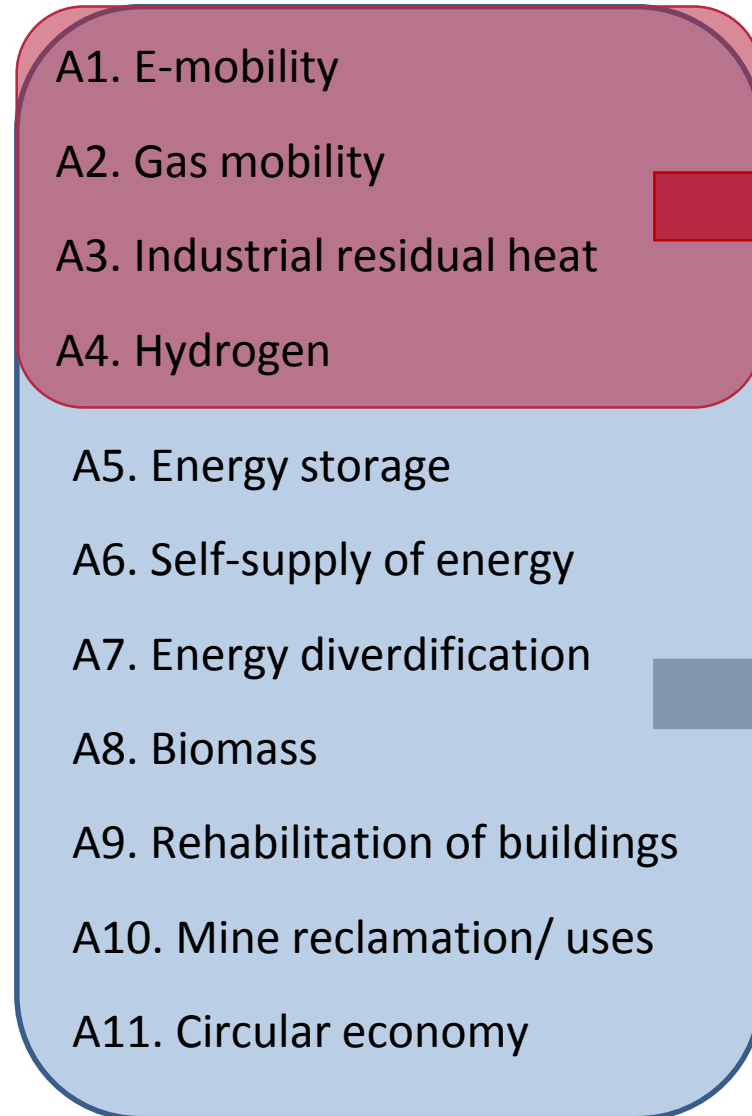


**5 working groups:**

- ✓ **Energy**
- ✓ **Industry**
- ✓ **Primary sector**
- ✓ **Tertiary sector**
- ✓ **Environment**

**“Multidimensional  
approach”**

# Asturias case



**Private-public cooperation**

**COOPERATION**

**Bilateral meetings**

**“We listen to build a  
bottom-up strategy in Asturias”**



## Asturias case

### ➤ Committee works.

### COOPERATION



Economic diversification  
and transformation

Support for workers

- Involvement regional stakeholders
- Document -Executive Summary
- Public consultation
- Regional position paper in energy transition

### • LESSONS LEARNED

- ✓ Knowledge of situation.
- ✓ weaknesses and threats
- ✓ Assesment of potential, capabilities and strengths
- ✓ Identification of opportunities: Turning transition into an opportunity
- ✓ Never walk alone: being together through social dialogue

**Need for re-skilling: formative itinerary**

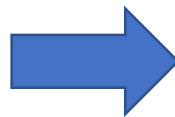
An Energy Transition  
Strategy is needed in  
Asturias

# Energy Transition in Asturias. Cooperation approach



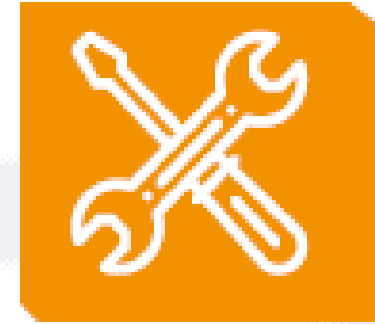
- Strategy
- REGIONAL COMMITTEE ON ENERGY TRANSITION**

Involvement of Regional Administration, Association of Companies and Unions



- Actions
- ROUNDTABLES ON ENERGY PRIORITIES**

Involvement of companies, research centres and Regional Administration



- Projects
- WORKING GROUP OF REGIONAL ADMINISTRATION**

Involvement of regional agencies and DGs

**“We listen to build a bottom-up strategy in Asturias”**

# Assistance and support of the EU Commission





## ESTRATEGIA DE TRANSICIÓN ENERGÉTICA JUSTA DE ASTURIAS

BORRADOR

## ➤ Our strategy aims to

- create **6,300** new employs in 2030
- and mobilize **6,500** millions € of investment.

## ➤ Projects on

- energy storage,
- H2 production and consumption,
- circular economy,
- renewable energy,
- efficiency,
- mobility,
- sustainable mining

**-1480**

### AGRICULTURE

New cultivation methods, sustainable waste management, supply of forest and livestock residual biomass for the new biomass and biogas generation plants.

**New  
employs  
+1100**

### INDUSTRY

R & D & i, manufacturing of goods for processes (CO2 capture, renewable energy, storage, sustainable mobility), production of new materials and fuels (hydrogen).

**+1450**

### TERTIARY SECTOR

Energy service companies, the construction of power plants (renewable energies), the energy renovation of buildings, the digitization and automation of processes and training tasks for the new skills required.

**+4730**

### ENVIRONMENTAL SECTOR

Water treatment and purification, waste management and treatment and other environmental services related to the circular economy

**+500**



Pozo San Nicolás



Planta de La Pereda



Lavadero de Batán

- HUNOSA: Created in 1967
- Public owned coal mining company towards diversification

## FROM COAL MINING => ENERGY DIVERSIFICATION

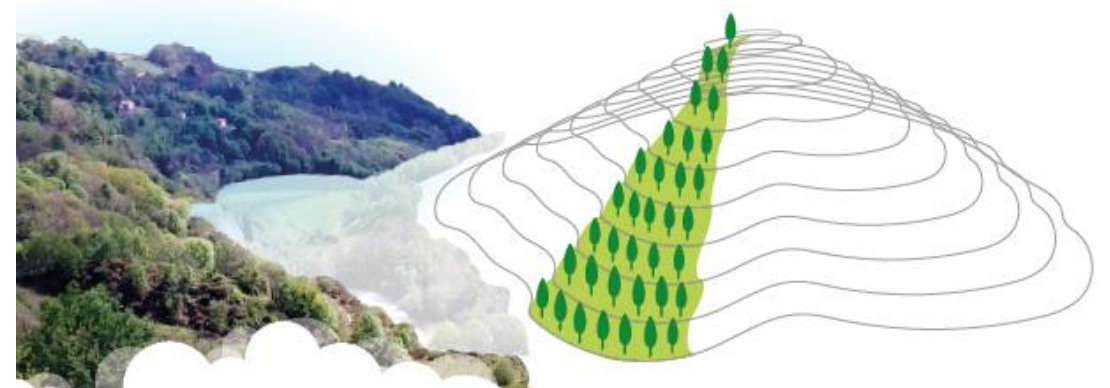
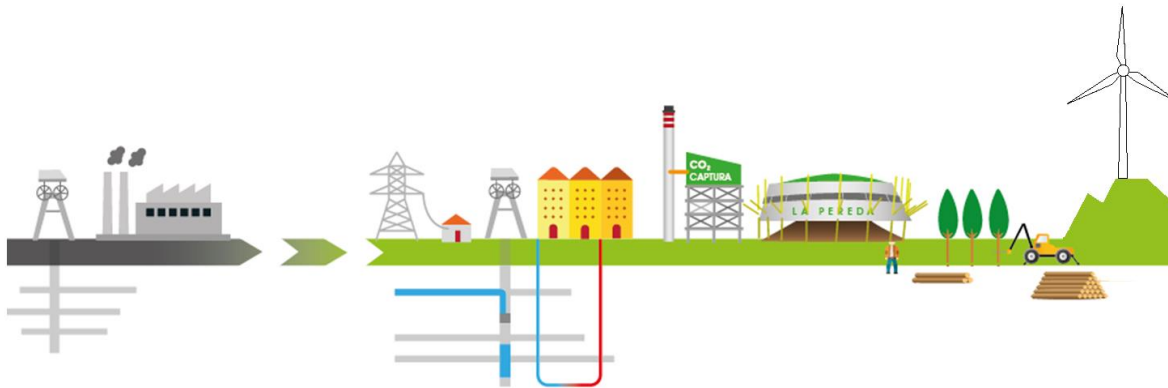
- Mine water and its pumping costs are an eternal (infinite) environmental
- Annual pumping costs: 10 M €
- Mining vertical shafts are within cities or in their urban environment: potential interesting energy sources



## New resources

Many reclaimed coal waste deposits: forest and wood waste biomass

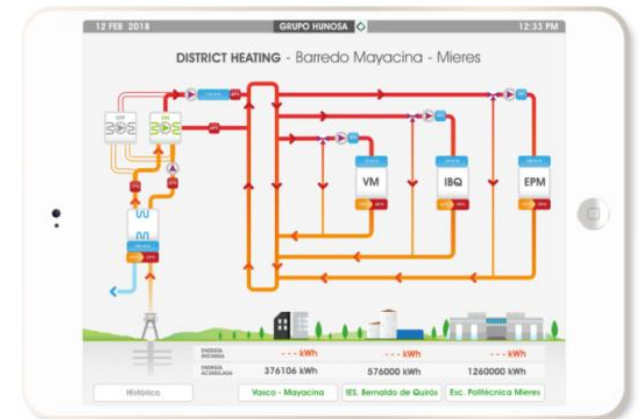
**Forest biomass** that involves the enhancement of more than 3,864 Ha of forest with a forest resource of more than 9,000 tons / year (22,950,000 kWh useful in thermal energy), for supply energy service contracts.



- Assets linked to mining activity: District heating through Mine water geothermal energy

## 1. District Heating Barredo – Mayacina:

- Main University Building in Barredo and FAEN
- Bernaldo de Quirós High School
- 2 buildings with 117 and 131 flats in Vasco Mayacina



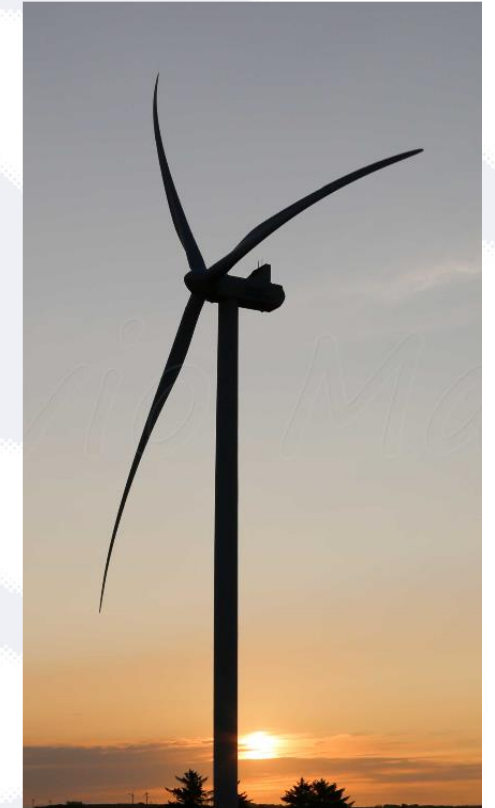
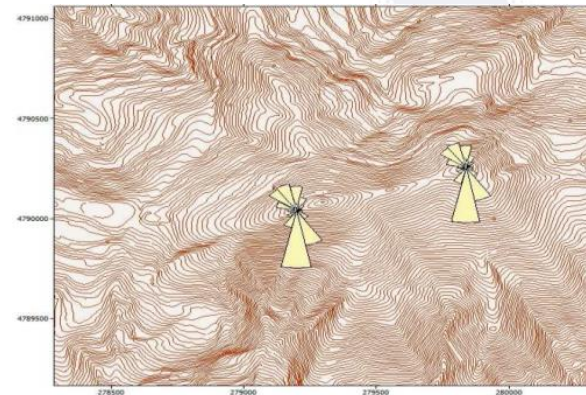
*“The future geothermal heat network project in Barredo will install an additional 2MWt, which will mean a total power of close to 6MWt, making up the first geothermal district heating in Spain”*



## OTHER ENERGY DEVELOPMENTS

**Wind measurement tower Polio Mountain area: to assess wind resource.**

**The study shows that there is feasibility to install two 2MW wind turbines operating 2,000 equivalent hours per year that would generate 8 GWh per year to cover the 7 GWh demanded by pumping water from abandoned wells .**



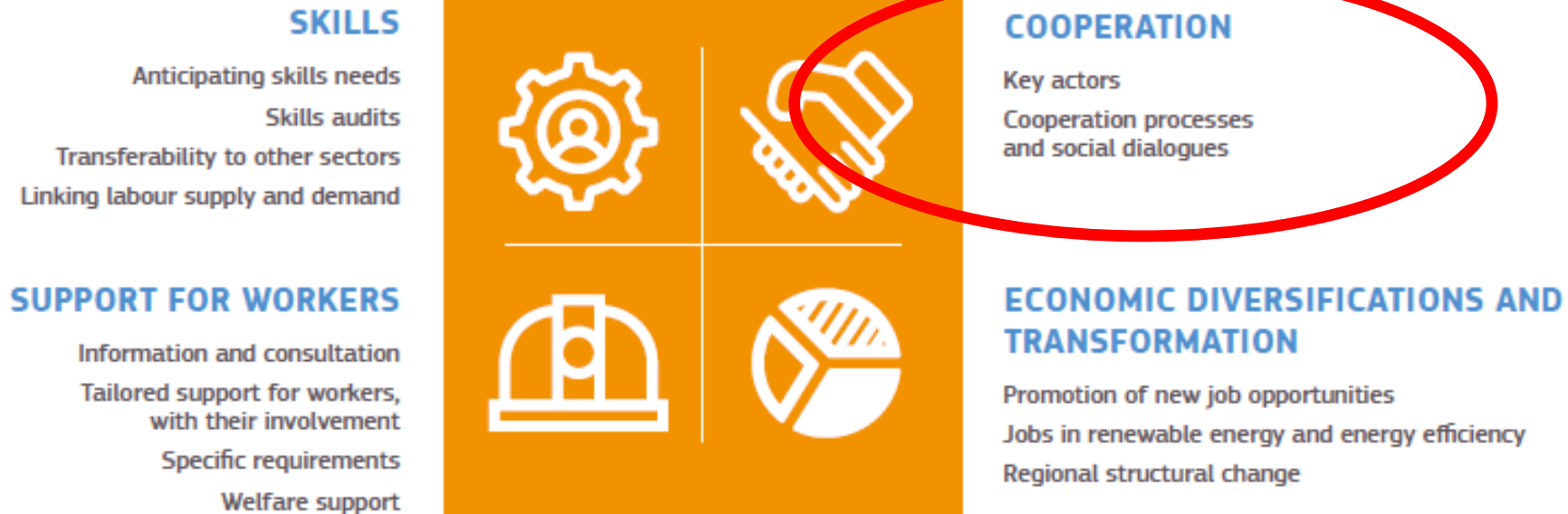


# Asturias case

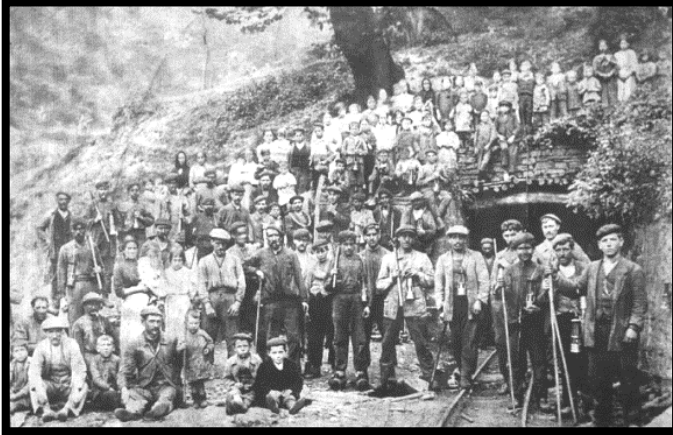


**“People at the centre”**

# About people: 4-pillar approach



# Just transition in coal regions

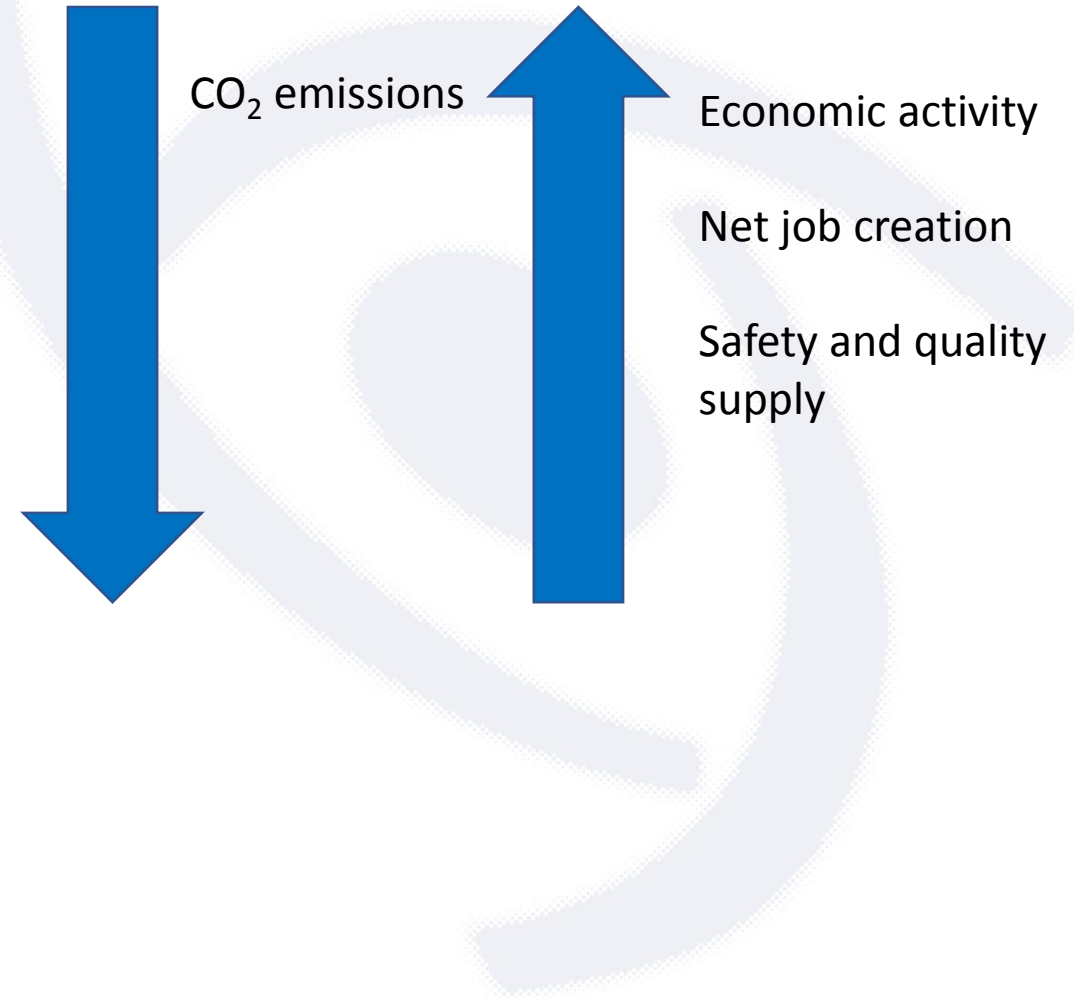


**COOPERATION**





# we must turn the risks of transition into an opportunity



# Our experience

- **Cooperation between private companies and public administrations is key for an optimal solution of this process**
- **Awareness-raising and training activities are needed to turn threats into opportunities**





# Thanks!!!

## Patronato y empresas colaboradoras de la Fundación Asturiana de la Energía

### PATRONOS



### EMPRESAS COLABORADORAS



December 15, 2022