SYNTHESIS DOCUMENT

Multi-Stakeholder Dialogue on Climate Action: Barriers in Spain's Green Industry

ORGANIZED BY ALINNEA - IE FOUNDATION

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Alinnea is a dynamic Think & Action Tank established in 2024 to accelerate effective and equitable climate solutions in Spain and beyond. We are supported by the European Climate Foundation (ECF) and hosted by the IE Foundation.
Alinnea's commitment is to identify specific barriers in different economic sectors and propose incentives and recommendations to reduce existing bottlenecks. We do this through multi-stakeholder dialogue. Our mission is to serve as a dynamic and independent platform, bringing to the table a broad interdisciplinary knowledge, from the public, private and social sectors, which allows us to understand and analyze proposals from the different actors that are part of each of the sectors analyzed. Alinnea relies on collaboration, knowledge sharing and innovative thinking to catalyze impactful solutions to the climate agenda.

Alinnea's main pillars of action are:

Multistakeholder Dialogue:

To foster an inclusive understanding of climate challenges and opportunities, we engage in open dialogue with all stakeholders, regardless of their level of involvement in the climate agenda. Through active listening, Alinnea surfaces concerns, interests, and potential losses associated with the transition, while also uncovering pathways for effective and equitable climate action.

Research & Knowledge Dissemination:

We generate comprehensive knowledge on topics aligned with its mission through in-depth analysis and by addressing gaps in existing research. This positions Alinnea as a valuable contributor to the field, providing insights that inform policy decisions and drive effective climate action.

Partnerships & Alliances:

We actively engage with other think tanks and national and global organizations and networks dedicated to advancing climate action to amplify impact and resources, and create shared strategies. By encouraging collaboration across sectors, Alinnea promotes transformative initiatives and mutually beneficial solutions.

Strategic Communication & Advocacy:

We share data-driven briefs and reports to provide incentives and inform key actors about the most efficient measures for climate action and just transition. By leveraging insights and advocacy strategies, Alinnea catalyzes transformative ideas for climate action.

Introduction

Green industrialization is emerging as a transformative global force, paving the way for the production of cleaner technologies, significant reductions in carbon emissions, and the widespread adoption of circular economy principles. This shift is crucial as the world faces the dual challenges of climate change and the need for sustainable economic growth.

By optimizing energy consumption, transitioning to renewable energy sources, electrifying industrial processes, and embracing sustainable practices, countries can build climate-resilient economies that protect the environment while creating high-quality jobs. This global transition aims to enhance the competitiveness of industrial sectors while ensuring a just and inclusive pathway for workers, promoting social well-being and innovation.

To explore these challenges and opportunities, Alinnea conducted several one-on-one interviews to prioritize key issues in the Green Industry in Spain. We also organized an exploratory dialogue with experts from various sectors and organizations to discuss and develop concrete recommendations for overcoming these challenges.

Objectives

The objective of the exploratory dialogue was to identify the main bottlenecks hindering climate action on the selected topic, assess each bottleneck based on its potential impact and feasibility for resolution, explore actionable solutions, and highlight best practices that could serve as models.

This synthesis document outlines the key findings and actionable recommendations proposed by participants during these discussions, providing a roadmap for future work on Spain's green industry.

Methodology

To facilitate the exploratory dialogue, we employed the "Pro-Action Café" technique - a dynamic facilitation method designed to foster collaboration, creativity, and actionable outcomes. Participants were organized into small groups of 6-7 individuals per table, each focusing on one of the following topics:

Table 1: Just Transition
Table 2: International competitiveness of the Spanish Green Industry
Table 3: Industrial Decarbonisation, Electrification and Recycling

At each table, a "host" was assigned to represent a person directly affected by the challenge. The host guided the discussion, ensuring the group remained focused on the topic. Meanwhile, a "harvester" was responsible for capturing key insights and ideas, using flipcharts as the primary workspace.

The discussions followed a structured approach:

1. **Identifying Bottlenecks:** Participants shared their perspectives on the barriers hindering climate action in each area.
2. **Prioritizing Challenges:** The group evaluated the bottlenecks based on their potential impact and the feasi bility of addressing them.
3. **Exploring Solutions: P**articipants proposed actionable solutions, identified key stakeholders, and highlighted best practices that could serve as models.

The barriers identified were categorized into the following themes:

1. Training, communication, and information needs
2. Dialogue and stakeholder engagement requirements
3. Regulatory frameworks and institutional coordination
4. Incentives and fiscal measures
5. Defining the scope of the problem or solution
6. Economic implications of proposed solutions or barriers
7. Data requirements and socioeconomic analysis
8. Systems thinking and integrated approaches

These categories provide a common framework for understanding the obstacles to advancing climate action. They are linked to actionable recommendations and best practices, as well as the stakeholders required to drive progress. While time constraints limited the ability to identify all barriers, actions, or actors across all thematic tables, the framework offers a robust foundation for future efforts.

Participants

The following table presents the organizations and people who participated in this exploratory dialogue on barriers in Spain's green industry.

1	**Juan Requejo**	Socio, Arenal Grupo Consultor, CEO, At Clave
2	**Enrique Dans**	Professor, IE University
3	**Pablo de Juan García**	Manager, Club Español de la Energía
4	**Irene Ogea Ruiz**	Head of ESG, Engie
5	**Jesús Crespo**	Responsable Estatal de Materias primas, CCOO Industria
6	**Teresa Parejo**	Head of sustainability, Iberia
7	**Angel Muñoa**	Secretario de energía, CCOO Industria
8	**Laura Vélez**	Spain e-mobility expert, Transport & Environment
9	**Manuel Calvo Diaz**	Responsable Energía y Medio Ambiente, Fundación Naturgy
10	**Elena Lopez Gunn**	CEO, ICATALIST and Senior Associare Researcher, Real Instituto Elcano
11	**Miguel Muñoz Rodríguez**	Head of the Climate Policies and Alliances, Iberdrola
12	**Jorge San Vicente**	Senior Associate, European Climate Foundation
13	**Gonzalo Sánchez**	Programme Manager, European Climate Foundation
14	**María Suarez**	Directora técnica, Centro de Innovación en Tecnología para el Desarrollo Humano itdUPM
15	**Javier Mazorra**	Professor, Universidad Politécnica de Madrid
16	**Lara Lázaro**	Principal Researcher, Real Instituto Elcano

MAIN FINDINGS

TABLE 1: JUST TRANSITION

BOTTLENECKS IDENTIFIED

Training, communication, and information needs

For attendees the following bottleneck may have a HIGH impact and a HIGH feasibility level:

- **Training** – the insufficient education and training of workers hinders the just transition process.

Another barrier that, according to attendees may have a MEDIUM impact and a HIGH feasibility level is:

- **Compensation barrier** – there is an imbalance between the number of green jobs created and the traditional jobs dismantled, as well as the skills required for these new jobs. While there is a positive trend in the creation of brown jobs that require low skill levels, green jobs are increasingly available for medium and high-skilled professionals. This creates a barrier not only related to training but also affects which sectors benefit from the transition and which ones are disadvantaged. As a result, low-skilled individuals - often from lower income households - may feel like they are losing out due to climate action, as they compete with those perceived as winners of this process, namely high-income households and high-skilled groups.

Actions identified as necessary to reduce the barrier:

- Implement training and re-qualification programs for workers in sectors involved in green initiatives.
- Develop targeted transformation policies for "brown" sectors, such as agriculture, tourism, construction, and services, to ensure they also benefit from the green transition.

Dialogue and stakeholder engagement requirements

For attendees, the following bottlenecks may have a HIGH impact and a HIGH feasibility level:

- **Lack of social dialogue**, and **ideological barriers** – There is a significant absence of a multi-stakeholder platform that brings together individuals from various sectors of society to foster social dialogue. Additionally, political parties have taken positions on climate issues that contribute to societal division and uncertainty. A shift in industrial mentality is necessary; the situation is not merely a matter of fixing an existing system – what is required is a complete transformation. The current strategies focus on product differentiation, which may hinder a genuine transition.

Another barrier that could have a MEDIUM level of impact and a HIGH level of feasibility is:

- **Unique challenges faced by each value chain** – specifically concerning dialogue with suppliers and consumers of "green" products and services. Each chain and process require specific measures, and these sectors are typically characterized by a high degree of fragmentation among small and medium-sized enterprises.

Regulatory framework and institutional coordination

For attendees, the following bottlenecks could have a HIGH impact and a HIGH feasibility level:

- Lack of coordination among different administrations regarding their functions and objectives. It is crucial to implement the EU Net Zero Industry Act, which aims to ensure that “by 2030, the EU’s global strategic manufacturing capacity for Net Zero CO2 technologies reaches at least 40% of the annual deployment needs of these technologies in the Union".
- Insufficient mechanisms and tools to facilitate the transition of industries towards products and services essential for climate action. Specifically, there is a need for mechanisms to promote the transition of workers between sectors, ensuring a just transition that leaves no one behind. This should involve dialogue with civil society, the business sector, trade unions, and adequate transparency measures.

Other barriers that according to the attendees may have a MEDIUM level of impact and a HIGH level of feasibility are:

- **Timing** – the pace of government decisions differs from that of businesses, and society progresses at its own speed as well. These differences manifest not only in timing but also in inconsistencies between intentions and actions.
- **Lack of anticipation** – this issue is related to the first one, but it’s distinct. The lack of anticipation stems from legislative cycles that hinder timely responses.
- **Lack of planning** – how does the Just Transition Strategy align with the new European cycle and its long-term goals? What is the role of the Social Climate Fund? What are the national plans?

Actions identified as necessary to reduce the barrier:

- Propose initiatives focused on a just transition in green industry within the framework of the new law on industrial

policy (the draft bill on industry and strategic sovereignty). Ensure that the benefits are shared adequately with local communities, so that investments in green industry are viewed as opportunities rather than burdens.
- Suggest a tripartite agreement involving unions, companies, and administrations as the foundation for actions arising from the new Industry Law.
- Define and structure the roles of entities and stakeholders responsible for managing the transition to renewable energy and the green industry in local areas.

Incentives and fiscal measures

For attendees, the following bottleneck may have a MEDIUM impact and a HIGH feasibility level:

- **Cooperation and learning** – partnerships with other countries are not being fully utilized, particularly in ways that would lead to mutual benefits.

Actions identified as necessary to reduce the barrier:

- Collaborate with countries to share best practices on just transition policies. For example, with Chile, Colombia, France, and others.

Defining the scope of the problem or solution

For attendees, the following bottleneck may have a HIGH impact and a HIGH feasibility level:

- **Lack of local value** – there is a challenge in providing tangible value at the local level when developing projects in the territory, such as renewable energy or new investments in green hydrogen. This is often due to companies lacking the necessary knowledge or capacity to implement these projects effectively.

Other barriers that according to attendees may have a MEDIUM impact and a HIGH feasibility level are:

- **New Just Transition Strategy** – a new proposal for a just transition aimed at decarbonization is focused on phasing-out fossil fuels (coal, oil, gas), but does not address the need for a parallel phase-in of renewable energy sources. It is important that the new Industry Law, which is currently undergoing a public consultation process, is linked to this Just Transition Strategy.
- **Decarbonisation of mobility** – there is a pressing need to establish priority measures for the decarbonisation of mobility from the perspective of a just transition.

Actions identified as necessary to reduce the barrier:

- Conduct a socio-economic study to assess the impact of the green industrial transition with a focus on social justice. This study should be completed before implementing policies for each legislative cycle, acknowledging that a significant transformation in the industrial sector is necessary, rather than minor adjustments.
- Apply lessons learned from the coal phase-out experience to other sectors, such as the automotive sector, as part of the revision of the Just Transition Strategy (ETJ 2).

Data requirements and socioeconomic analysis

For attendees, the following bottleneck may have a MEDIUM impact and a HIGH feasibility level:

- **Lack of indicators** – the currently used indicators, such as GDP, are of limited relevance. Instead, macro indicators like genuine savings should be adopted. Additionally, there is a need for new indicators that are not currently available from the Instituto Nacional de Estadística (INE), such as changes in GDP, overall economic growth, industrial GDP, job creation or loss, population changes, and other factors. These aspects and how they impact on society and GDP are not measured during the decarbonisation process.

Actions identified as necessary to reduce the barrier:

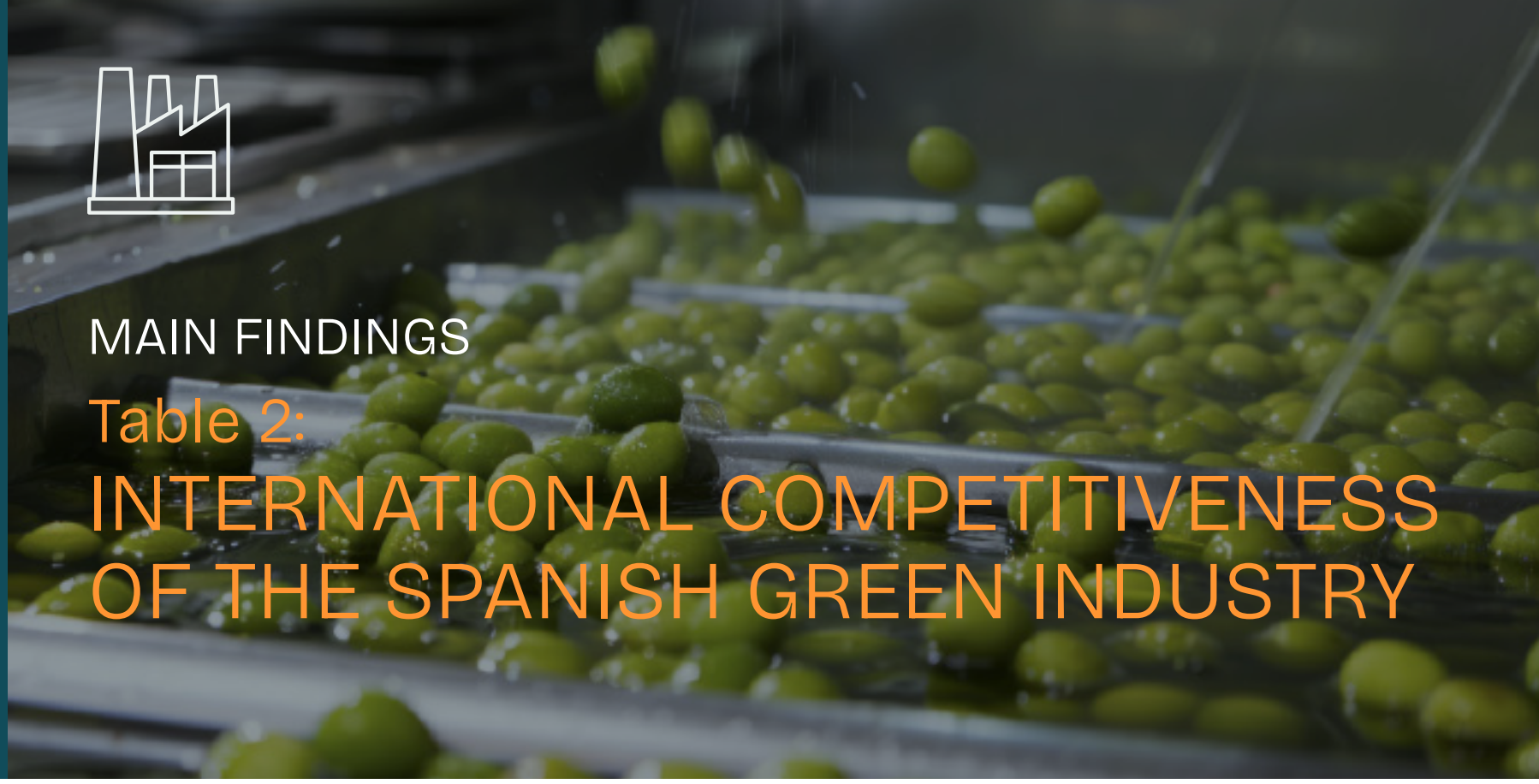
- Development of transition indicators that integrate climate action measures, biodiversity protection measures, and economic activity.

STAKEHOLDERS TO BE INVOLVED

- New rural operators, including developers and investors in rural areas (e.g. renewable energies and new industrial processes)
- Trade Unions
- Civil society organizations
- Relevant private sector companies

BEST PRACTICE EXAMPLES

- Tripartite Agreements – these agreements aim for a Just Energy Transition for thermal power plants facing closure. They involve the relocation of workers and the exploration of alternative activities for the affected areas. This initiative includes efforts from companies, which will engage in renewable energy projects and other activities, as well as support from the government, which will implement aid instruments organized around the Just Transition Agreements. Unions will also participate to facilitate and monitor the fulfillment of commitments.
- Just transition agreements that have been approved for the phase-out of coal.
- Good practices in developer/community agreements related to the implementation of renewable energy ensure benefit sharing.



MAIN FINDINGS

Table 2: INTERNATIONAL COMPETITIVENESS OF THE SPANISH GREEN INDUSTRY

BOTTLENECKS IDENTIFIED

Dialogue and stakeholder engagement requirements

For attendees, the following bottlenecks may have a HIGH level impact and a HIGH feasibility level:

- **Entities participating** – the entities engaged in dialogues about the green industry are often the same, and these discussions are typically not public.
- There is a need to **reach broader audiences,** including the general public, to convey the importance of green industries at this time. It is crucial to understand and communicate the resources these industries require, such as land for renewable energy projects, water for green hydrogen production, and new power grids.
- There is a **lack of coordination** among government agencies involved in the development of various value chains within green industries. Expanding dialogue and listening processes could help address this barrier.
- Many believe there is a l**ack of vision and a cohesive narrative** at the national political level regarding the opportunities offered by these value chains
- There is **insufficient dialogue** with other regions (such as the Mediterranean, Latin America, and Africa) concerning the development of value and supply chains linked to the green industry, as well as the importance of respecting labor rights.

Actions identified as necessary to reduce the barrier:

- Co Create a platform for dialogue among stakeholders (such as entities, organizations, unions, the private sector, and academia) who have a vested interest in the subject. Special attention should be given to those who are not currently participating in the existing dialogue spaces.
- Analyze the current situation and needs of various green industry value chains to identify the technologies required for each and assess the level of advancement in the greening process.
- Propose the establishment of a "National Industry Council" as a consultative body that can guide new industry law and their implementation, with a focus on just transition and reindustrialization.
- Establish dialogue and diplomatic spaces for the European Union to engage with countries of the Global South.

Regulatory framework and institutional coordination

For attendees, the following bottlenecks, related to the development of electric vehicles, may have a MEDIUM impact and a MEDIUM feasibility level:

- Lack of stable **regulatory framework.**
- **Shortage of** skilled labor.
- **Ongoing transition from** current internal combustion vehicle manufacturing processes.

Actions identified as necessary to reduce the barrier:

- Develop training programs to facilitate the transition of the sector toward electric production models and along the supply chain.
- Implement a stable incentive plan for the acquisition of electric vehicles and the establishment of recharging stations.
- Adapt the social leasing model of France to fit the Spanish context.

Other barriers related to European policy and decision-making were identified:

- **Conflict** between **European policies and member states** – there is a noticeable incoherence between European policies and the positions of member states at both national and regional levels (eg, CCAA level in Spain). Attendees proposed developing an integrated plan that considers all three levels of competence.
- **Fragmented industrial sector** – the absence of a united and cohesive **industrial sector hinders** the competitiveness of European industries in comparison to other regions such as the USA China, and India.
- **Unclear direction of the new European Commission's approach** – there is uncertainty regarding whether the new Commission will adhere to the Green Deal approach for the green industry.
- **Ambiguous objectives for Spain - Spain's goals lack clarity; it is uncertain** whether the country aims to become a green industrial hub or a green energy hub that exports energy to other countries (eg., green hydrogen). In this context, Spain could play a crucial role in fostering a united EU.
- **Weak energy interconnection with France** – the inadequate energy interconnection with France poses a barrier

to the development of green hydrogen and renewable energy production.

Actions identified as necessary to reduce the barrier:

- Conduct studies to determine which areas of interest are significant for Europe and Spain regarding green industries.
- Identify mechanisms to align the interests of EU countries and engage with other regions to collaborate efficiently in developing green industry value chains.

Incentives and fiscal measures

For attendees, the following bottlenecks may have a HIGH impact and a LOW feasibility level:

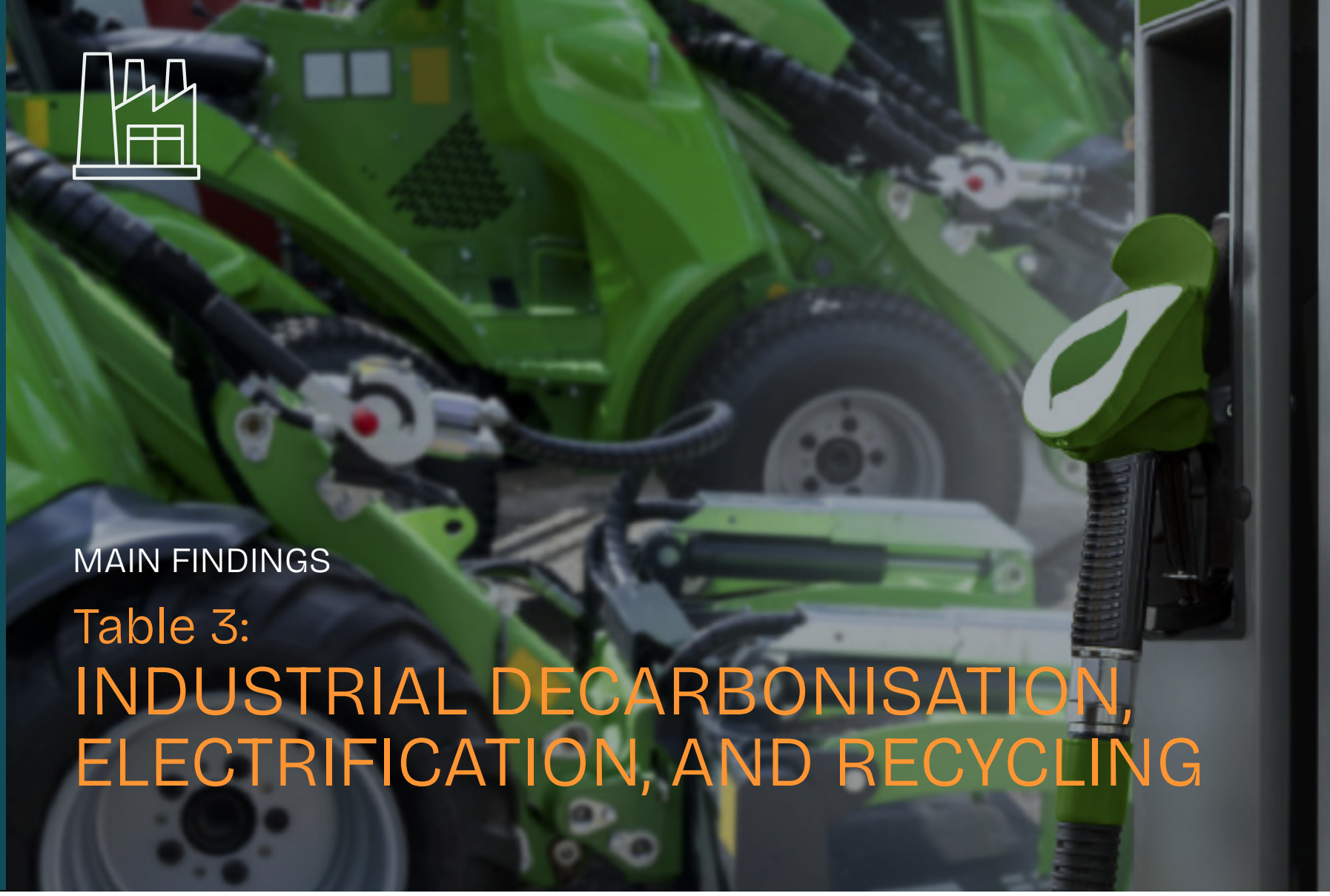
- **New investments**: Decisions regarding which countries to invest in or divest from are made at the business group level for multinationals operating in multiple countries. The primary criterion for selecting a country for new investments is to find the lowest cost. This also encompasses the opportunity to receive some form of public aid, such as subsidies (like Next Gen funds) or soft loans. Consequently, European countries are in fierce competition to attract investments from multinational business groups in the green industry, leading to a race to offer the most favorable conditions for companies looking to develop new investments within Europe.
- Increasing the **competitiveness** of companies can be achieved in two ways:
  a. By establishing a public company that is not focused on maximizing economic benefits, and can lower costs (for example, the public energy company of the Generalitat de Cataluña).
  b. By forming a public-private partnership that creates attractive investment conditions for the private sector, with the public sector serving as a guarantor for debt or providing other forms of support.

Actions identified as necessary to reduce the barrier:

- Establish mechanisms to incentivize industrial cooperation across each supply chain
- Create incentive ecosystems to encourage private investment in green value chains.
- Enhance connectivity at the Small and Medium Enterprises (SME) level throughout the supply chain.

According to attendees, another barrier, related to the development of the electric vehicle, may have a MEDIUM level of impact and a MEDIUM level of feasibility:

- This issue relates to **reduced access of Chinese electric vehicles to the EU** and the implementation of new entry tariffs.



MAIN FINDINGS

Table 3: INDUSTRIAL DECARBONISATION, ELECTRIFICATION, AND RECYCLING

BOTTLENECKS IDENTIFIED

Training, communication, and information needs

For attendees, the following bottlenecks may have a MEDIUM impact and a HIGH feasibility level:

- **Uninformed society** – there is a notable lack of knowledge and widespread misinformation regarding the social and environmental implications of the green industry, and the investments required from the public sector.
- **Lack of knowledge** about available **technological** options – there is a need for sufficient information about existing technologies.
- Common element across society - ignorance and misinformation are prevalent at all levels, including the business and public sectors.

Actions identified as necessary to reduce the barrier:

- Develop a communication plan aimed at educating society. Utilize influencers like Lamine Yamal for outreach.
- The new European Commission is working on a Clean Industrial Deal. This initiative is likely to address several identified challenges, such as enhancing coordination between institutions and promoting the development of industry legislation, which would strengthen free trade agreements and their sustainability provisions.

Dialogue and stakeholder engagement requirements

- **A serious debate** on the challenges of industrial decarbonisation is essential. Spain is in a favorable position to capitalize on this opportunity, provided it knows how to leverage its advantages. The country has several factors thanks to that make it attractive for foreign investment, including lower electricity costs compared to other European countries, a strategic location between America, Africa and Europe, a stable regulatory environment, a highly skilled workforce, among others.

Regulatory framework and institutional coordination.

According to the attendees, the following bottlenecks may have a HIGH impact and a LOW feasibility level:

- Need for **improved governance** and the search for partnerships.
- **Politicization** and polarization regarding climate action measures.
- **Lack of clear strategies**.
- Short-term thinking.
- **Lack of clarity** in priorities.
- Need for aligned industrial strategies – making climate action a driver of Spain's industrial structure.
- Absence of a **unified vision**.
- Failure to **specify future solutions**.
- Procurement challenges related to green products.
- **Lack of regulatory certainty** and visibility.
- Insufficient **commitment** from the administration.
- **Slow administrative processes** hindering the transition.
- Tension between geopolitical and global objectives.
- **Geostrategic implications** complicate the implementation of solutions.

Actions identified as necessary to reduce the barrier:

- Promoting the internalization of environmental costs in the public debate.
- Facilitating closed-door meetings and discussions between stakeholders and decision-makers to generate new alliances and ensure citizen participation.

Incentives and fiscal measures

For attendees, the following bottlenecks may have a HIGH impact and a LOW feasibility level:

- **Taxation not aligned** with decarbonisation efforts.
- Need to promote **demand** for clean energy and green

products.
- **Insufficient focus on ecodesign.**
- **Lack** of energy resource **planning**.

Defining the scope of the problem or solution

For attendees, the following bottlenecks, primarily related to the business sector, may have a HIGH impact and a LOW feasibility level:

- **Fear** of losing competitiveness.
- **Insufficient economies of scale**.
- Barriers to the European single market.
- High **costs associated with green hydrogen (H2).**
- Lack of **technological maturity**.
- Insufficient standardization and interoperability.
- Need for real development in **multimodal transport**.
- Lack of knowledge and expertise.
- Inadequate analysis of the societal impacts of proposed solutions.
- Need for support for **research on decarbonisation technologies**.
- Comprehensive review of the entire process from raw materials to final products.
- **Shortage of qualified human resources**.
- Limited resources for small and medium-sized enterprises (SMEs).

Actions identified as necessary to reduce the barrier:

- Training programs for members of Boards of Directors.
- Conducting analysis and research to:
    1. Understand the current situation and propose solutions.
    2. Study industrial demand needs.

Other barriers, related to the development of the electric vehicle, may have a HIGH impact and a MEDIUM-LOW feasibility level:

- **Aligned energy resource planning** and industrial strategies are essential.
- The current **power grid is not suitable for** large consumers
- **Proximity to renewable generation areas** is necessary, but this is not always feasible.
- The **prioritization of corporate profit** over the common good hinders decisions that would benefit everyone. We need to rethink the system and redistribute the benefits..

STAKEHOLDERS TO BE INVOLVED

Alinnea can create valuable, informative materials that address the decarbonisation of various industry sectors. These materials should have a rigorous informational objective for all audiences, highlighting the process's importance, the opportunities and risks for different stakeholders, and how to approach this transition based on the principles of a just transition.

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