Executive Summary

Diagnosis & mapping on green employment and social and sustainable entrepreneurship in Europe.
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The document for the “Diagnosis and mapping on green employment and social and sustainable entrepreneurship in Europe” has been developed under the frame of the project **Greener Future** funded by the European Union between September 2022 and April 2023. The objective is that this diagnosis and mapping will be the base and will help improve the capacity of organisations to train, guide and advise young people in Europe in the development of the skills needed to apply for green jobs within the framework of the solidarity economy and the transformation of economic sectors towards cleaner technologies, as well as to promote young entrepreneurship towards new sustainable business models, promoting a stable work integration, while ensuring the care of the environment and fight against climate change.
The present study proposes a methodology combining techniques that allow it to go from gathering information and viewpoints of a wide and diverse group of stakeholders, to progressively narrow the scope and analyse key trends of experiences and initiatives in depth.

The first phase consisted of a context analysis and conceptualization that will serve as the basis to identify, map and analyse. The analysis consisted of a critical analysis of the most relevant academic articles from the perspective of their definition for the concept “green jobs”, the field of interest and the main results obtained. To situate the study in Europe, a sociodemographic, economic and environmental analysis has been conducted, as well as the strategic framework regarding green jobs.

Leveraging on this baseline, the field study designed for the mapping and diagnosis of green employment experiences consisted of three tools: questionnaires, participatory workshops and interviews.

The field study has reached the participation of a total of 297 actors (most of them in Belgium, Denmark, Spain and Italy, but others in Austria, Poland, Germany and Hungary). The questionnaire reached 237 stakeholders. The workshops, organised in the four main countries of the study (Denmark, Belgium, Italy and Spain) counted with the participation of relevant stakeholders from social organisations, unions, private initiatives and public authorities. In total, 49 stakeholders participated; 9 in Denmark; 10 in Belgium; 11 in Italy; and 19 in Spain. Semi-structured in-depth interviews were conducted with those that could bridge some knowledge gaps or dig deeper into key topics. In accordance, 11 interviews have been conducted, one academic specialised in economics of the ecosocial transition, and two public authorities at the national level in Spain; two environmental consultancies (Italy and Denmark), sustainable finance company (with branches in Italy, Spain and Germany), three entrepreneurs (Italy, Spain and Denmark), a think tank (Denmark); a European network of social enterprises.

Definitions of Green Jobs and sectors

Green jobs appear as a polysemic concept, that is in dispute to be defined and the definition is different depending on the interest group (governments, companies, UN, EU, ILO, environmental organizations, etc.). What is clear to all is that green jobs can be a possible solution to shift processes of production immersed in the climate crisis. In order to define what green jobs and green economy are the environmental and social aspects must be take into consideration in this definition and we should guarantee that this green jobs and economic and production models promote activities that are centered in decent work that contributes to a just ecological transition and decarbonization reducing the use of materials, resources, waste and protecting and restoring ecosystems enabling communities to adapt to climate change in all the steps of the production chain offering opportunities to women, youth and excluded groups.

At the same time, Just Transition is a concept that has also several definitions, but that we can agree to explain as the transformation of the economy, production and consumption models based on fossil fuels and extractive economy to a regenerative economy that tackle the climate crisis. A just transition must ensure environmental sustainability as well as decent work, social inclusion and poverty eradication. The transition must be just, inclusive and equitable from the social, ecological, economic and global point of view leaving no one behind.

There are different definitions of green jobs and economic sectors for green employment. A more concrete categorisation of green economic activities is needed to better analyse how transformations in the productive economy are taking place, and devise ways to promote an ecosocial transition. Thus, here are some examples of green specific sub-sectors of the economy that have been identified:
### Green specific sub-sector

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment, Purification and Regeneration of water</strong></td>
<td>Urban or industrial water</td>
</tr>
<tr>
<td><strong>Management, treatment and minimisation techniques in the generation waste</strong></td>
<td>Including upcycling and recycling of urban, industrial, or inert waste, circularity, and cleaning and regeneration of contaminated soils</td>
</tr>
<tr>
<td><strong>Renewable Energies</strong></td>
<td>Wind, Solar PV, Solar Thermal, Geothermal, Aerothermal, Biomass, Biofuels, Hydrogen; self-consumption and Energy Communities</td>
</tr>
<tr>
<td><strong>Management of Natural Spaces</strong></td>
<td>Exploitation (wood and non-timber), regeneration of affected areas, reforestation of trees or scrub, restitution of habitats, restitution of wetlands, regeneration and cleaning of soil, green infrastructures for water management</td>
</tr>
<tr>
<td><strong>Socio Environmental Services</strong></td>
<td>Research, political advocacy, engineering, consulting and auditing, ACV, ecodesign, green purchasing, laboratories for the analysis of water, waste, soil, air, etc.</td>
</tr>
<tr>
<td><strong>Agroecology and agri-food management</strong></td>
<td>Including plant and animal level</td>
</tr>
<tr>
<td><strong>Urban ecology and bioclimatic architecture</strong></td>
<td>Rehabilitation for energy efficiency of buildings, rehabilitation of urban areas, sustainable mobility, re-naturalisation of landscaped areas and channels and wetlands, new biophilic or natural cities, nature-based solutions, bioconstruction</td>
</tr>
<tr>
<td><strong>Local and slow tourism</strong></td>
<td>Ornithological and “adventure” tourism in protected or unprotected natural environments</td>
</tr>
<tr>
<td><strong>Sustainable finance</strong></td>
<td>Including equity crowdfunding, crowdlending of social and sustainable projects and entrepreneurship</td>
</tr>
<tr>
<td><strong>Communication and Awareness</strong></td>
<td>Including Environmental Education, cultural and audiovisual projects</td>
</tr>
<tr>
<td><strong>Micro manufacturing</strong></td>
<td>Crafts, laser cutting, numerical design, manual work in textiles, etc. at a small scale</td>
</tr>
<tr>
<td><strong>Research for an ecosocial transition</strong></td>
<td>From Social Sciences and Humanities, STEM, etc. and including theoretical, evaluation of case studies, developing new technologies and services</td>
</tr>
<tr>
<td><strong>Net zero industrial services</strong></td>
<td>Cyclo logistics, bike distribution, reverse logistics</td>
</tr>
</tbody>
</table>

Within these green activities, there are entrepreneurship opportunities in all of them. This classification does not intend to be exhaustive and probably leaves some emerging activities out, however, it is an initial approach that reveals some sectors that are emerging and gaining importance in Europe.
During the second half of the 20th century, groups of civil society and international organisations started to bring attention to climate change and its consequences. Thus, the international community began to put pressure on the states as soon as they realised that the only way to stop climate change and preserve the environment was the cooperation of the different countries. In this context, the **UN Convention on Climate Change (Rio de Janeiro, 1992)** took place, establishing the framework for the topic and setting a challenge for the parties: bringing effective measures to their national agenda to “combat human interference with the climate system”. Years later, during the COP21 the **Paris Agreement (2015)** has as one of the main points of discussion the Just Transition, which means greening the economy in a way that is fair and inclusive, creating decent work opportunities and leaving no one behind.

Some UN agencies and other organisations have been discussing and reaching agreements on green jobs. For instance, the ILO has led the creation of the initiative “**Climate Action for Jobs**” which was born during the COP 2019 focusing on the creation of decent jobs and it is co-lead by Spain and Peru that aims to allocate the creation of green jobs and the protection of livelihoods in the centre of national plans to stop climate change.

The European Union (EU) has also made visible that reaching more sustainable standards is a priority in the agenda. In this context, the European Commission has launched the “**European Green Deal** (2020) which aims to turn climate change into opportunities for making better policies and using resources in a more efficient way. This serves as the European Union’s road map to responding to environmental and climate challenges, and asserts that “the transition can only succeed if it is conducted in a fair and inclusive way”, avoiding that those sectors and regions most dependent on fossil fuels are left behind. However, it will also require the overall policies of the European Commission to facilitate participation and democratisation with regard to key economic decisions and resources. The European Green Deal also seeks to stop the production of net greenhouse gas emissions until 2050, conserving the environment and protecting the health and well-being of EU citizens from the challenges posed by climate change. This agreement meets its legal translation in the “**European Climate Law** (2021) where EU Institutions and states “are bound to take the necessary measures at EU and national level to meet the target, taking into account the importance of promoting fairness and solidarity among Member States”. This law not only binds the agreement but also includes some updates that makes the net zero emissions goal more achievable. These mentioned updates come in the form of timelines that set a climate target for 2030 to reduce at least 55% of greenhouse gases compared to 1990 and start a process to set another climate target for 2040. It also specifies that the progress made by the Union will be reviewed every five years and in line with the global stocktake exercise under the Paris Agreement.

Considering this new road map and the situation after the pandemic, the European Commission has approved the **Next Generation EU funds**, which are meant to support the economic recovery from the coronavirus pandemic and build a greener, more digital and more resilient future. One of the strongest areas that the Next Generation EU plan is covering is the idea of creating a greener Europe, lowering greenhouse gas emissions to net zero by 2050 through the implementation of sustainable measures such as investment in public transport and reducing polluting waste and rethinking the agricultural system of the countries that are part of the Union. In this sense, the countries are encouraged to invest these funds following the guidelines that are set, so the EU can be the leader of climate action globally.

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1. ILO, 2015.
2. COM (2019).
3. To this end, a Just Transition Mechanism is being developed that includes a Just Transition Fund.
Challenges and opportunities around green jobs and social and sustainable entrepreneurship

As mentioned, by appealing to green employment from a political framework, we understand that the decarbonisation and greening of the economy must go hand in hand with addressing vulnerability and social inequalities.

Some of the challenges and opportunities identified in the European context are the following:

- Climate mitigation and adaptation policies linked to a just transition

Mitigation and adaptation policies and measures in the framework of an ecological just transition in Europe are key. The different countries and the EU must advance in the ambition of their commitments to reduce emissions (mitigation) and the decarbonisation of economy and the production and consumption models as well as in the adaptation policies to adapt to the actual impacts of climate change and the future scenarios and potential impacts trying to reduce the risk and vulnerabilities against climate change.

However, actions to mitigate and adapt to the unavoidable effects of climate change are taking place in a world of social problems. The climate crisis needs complex diagnosis, solutions and approach to tackle such a complex issue as climate change, so we avoid simplistic or individual solutions we address mitigation and adaptation policies together as a hole that cannot be separated if we really want to solve the climate crisis.

- Techno optimism and the ecological transition and why technology can be an ally but not the solution

Some governments, companies and other actors are focusing all their efforts on finding and developing new technical solutions, that do not exist yet, but that will be developed and solve the climate change problem. Therefore, there are some governments and companies investing and hoping to find new technologies that will allow us to capture CO2, or develop new energy sources, focusing on potential “miracle solutions” that will solve the climate crisis while still ignoring the planetary boundaries. The over-emphasis on technological innovation or techno-optimism in the energy transition are a key challenge for the green economy. For example, renewable energies do not necessarily contribute to a green transition or generate green and decent jobs. This is why it is important to insist in the need to take into consideration the ecological and social aspects in order to really promote an ecological just transition.

We must use the just ecological transition as a framework when working on the definitions of policies and measures to fight climate change that are ambitious and realistic enough to address the complex challenge we are facing. False and unrealistic solutions, the techno optimism or partial solutions would be a waste of time that unfortunately we do not have according to the IPCC report and the scientific community.

- Sustainable urbanisms and mobility and the need to redesign and change current models

In relation to the specific challenges that could pave the way for thinking about green jobs in the framework of the urban economy, basically, it is not just about reducing greenhouse gas emissions, but about understanding what are the real existing problems and the ongoing processes of change that link the different economic sectors, spaces and social actors.

In the framework of the climate emergency, there is a need to change of the urban model and mobility systems that also requires and drives the transformation of research, training, consulting, associated technical services and implementation activities. Each of these activities is adapting to developments such as green infrastructure, nature-based solutions, net-zero energy building, waste reduction and circular economy, water cycle management, urban governance and decision-making, citizen participation, tactical urbanism and other innovative actions to improve public space.

The change in urbanism, urban economy and mobility does not only refer to employment, but also poses an institutional, social, and cultural transformation that affects our urban way of life and the development of cities and economy. In the field of mobility, the European Commission speaks of a new culture of urban mobility, beyond new infrastructures and technologies, which may be key when thinking about the learning and skills necessary to implement a new model less demanding in terms of transporting people, materials and energy.

- Textile activities, crafts, an opportunity for the circular economy?
As we mentioned, to fight climate change, we need to change the economy and the production and consumption model. In the case of the textile sector, this change of model must be particularly taken into account given that it is one of the most polluting industries and also linked to bad labour conditions, exploitation in countries from the global south, and linked to very unsustainable models such as the fast fashion. However, in relation to the environmental aspect in recent years, it has been a sector that has tried to evolve in terms of improving its environmental impact. Recycling is one of the keys to this activity, sustained at various levels: from new materials, such as the creation of new fabrics that recycle different polluting components from other industries to the rise of second-hand clothing. The textile sector should be considered a strategic activity, although it is often not given the importance it should have within green employment.

It is also important to take into consideration the representation of women in this sector, both at artisan and industrial level, and how the transformation of this sector and the opportunities linked to green employment and entrepreneurship in this area should also include the gender approach and analysis.

The textile sector brings together different spheres: the modern and more technological (research and development of new materials), and the traditional, through manual and artisan clothing, and with traditional materials. Crafts are a sector of activity that should be considered green jobs in its entirety, given that manual labour pollutes less in its production than industry, even more so when recycling is, to a large extent, part of its raw material.

**Recommendations**

The following recommendations have been developed based on the result of the diagnosis and mapping process, (documents and policy papers, questionnaires, the focal groups and the interviews) and the solutions and proposals suggested by the participants.

**Governments**

Governments and public institutions have different ways of supporting and directing green jobs and social and sustainable entrepreneurship towards a just transition. Funding, green taxation, regulation of economic practices and training are some of the key tools. These, in the frame of not only national policies and legislation, but also regional and local scales that bring down European and national targets to the needs, opportunities and possibilities of local communities and environmental challenges.

- The current approach of governments and public institutions is sectoral, linked to physical and territorial ecosystems (infrastructures, water and nature management, forest management, reuse, recycling, energy, etc.). It is necessary to incorporate an **inter-sectoral approach**, with areas that collaborate intensely in proposing multi-disciplinary solutions, and always crosscut by a social and governance lens.

- Rethinking the relation between people, local communities and territories, through research and possibly creating **new job positions in public administrations**, to regulate companies and people’s relationship with the territory. These could be local development initiatives linked to moderate tourist structures, community gardens or Energy Communities, for instance.

- The **regulation of oligopolies and non-sustainable practices of local and international and transnational companies or investments**. One way would be to apply the Due Diligence law, at European level, to oblige corporations to respect social and environmental justice, by taking accountability of the human rights respect along the entire supply chain.

- In institutional projects related to green jobs, the disciplines tend to be engineering, while new profiles that address a multi-layered vision would be useful. In some cases, the presence of social sciences, humanities and arts provides important viewpoints and methodologies to address social challenges and inequalities regarding the climate crisis.

- **Funding technological and also social innovations**, using EU funds and others, towards the just ecosocial transition. These funds should include social and environmental indicators so that local projects, social and solidarity economic initiatives, small businesses, entrepreneurs, women, migrants and youth, as well as sociocultural activities are benefitted from them.

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5. [About - Justice is Everybody's Business](https://justice-business.org)
• Proposing concrete policies and legislation at the local level, that promote green jobs, social and sustainable entrepreneurship and have a great potential (at the municipality or neighbourhood scales). For instance, proximity employment and proximity services are ways of promoting green jobs at the local level that favour community-relations and tends to have a positive impact in female employment and the care economy, as it facilitates reconciling family and work.

• Involving diverse stakeholders’ participation and social dialogue in the decision making around the green economy is a pending task.

• Promoting the opportunity of scaling up small projects. Connecting entrepreneurs or projects of sub-sectors, for instance in agriculture, in transformation, harvesting, processing, packaging, transport, sales, consumption, waste, reuse and recycling: Regulating local trade to prevent the disappearance of neighbourhood shops and municipal markets and to increase their market share;

• Tackle the gender bias in technification jobs or technological activities. The under-representation of women in sectors such as energy and over-representation in other jobs such as crafts or care services, poses the challenge to include traditional and feminised jobs as green jobs but also to encourage the participation of women in traditionally male dominated activities. Analysing the gender impact of green jobs is also crucial.

Given the lack of indicators or concrete criteria that differentiates a green job, there is an important risk of greenwashing. To better identify what makes a job or entrepreneurship activity green and social, the following measures are proposed:

• Governments with academia, public institutions and social agents (such as social movements, unions, local associations and NGOs) at the EU level should work on developing a set of indicators, as a result of research work, to measure social and environmental impact of economic activities, at a local and global scales. Therefore, creating a threshold that clearly and objectively allows the differentiation of green jobs, and establishes an objective for workers and entrepreneurs to achieve in their activities and to become green. Among these, environmental variables to be taken into account are carbon emissions, energy use, resource use, and impact on biodiversity, and social indicators could be gender equality, youth engagement, impact in local communities (of different parts of the world) and tackling inequalities. Measuring impact should be sensitive to global chains and how transnational impact operates, pointing at labour, social, environmental and economic conditions that could guarantee a global just transition.

Civil society organisations

solutions to the climate crisis cannot be thought of only in terms of technology substitution: they also require profound socio-economic, cultural and political transformations. Green jobs and entrepreneurship in Europe are much more focused on technological advancements, leaving behind important social innovations needed. The following recommendations are intended to bridge that gap:

• Research and educational projects oriented towards achieving a unified and understandable variety of concepts related to the ecosocial transition means in the economy. In this sense, alliances between academia, NGOs, the private sector and public institutions can be crucial to disseminate knowledge. Rethinking knowledge and how different collectives gain knowledge is a crucial activity to stimulate a sociocultural change in the ecosocial transition.

• Communication and awareness raising activities that represent possible short and long term greener futures is also a large field of work to be developed. This would complement the existing apocalyptic messages, but also cultivate hope with grounded pathways.

• Awareness raising projects that have the objective of shifting behaviours and consumption habits of citizens towards more sustainable practices in relation to energy, water, food, clothes, etc. Through a just transition lens, these projects and campaigns should differentiate the messages towards wealthier people and countries that consume more, versus the poorer populations that face difficulties in accessing their right to resources such as water, energy or food.

• Create socio-labour spaces, to build or strengthen a political culture of workers (including entrepreneurs), around trade unions or networks, in which to re-create social ties. This is key to consolidate a sense of collectivity and count with bargaining power in green jobs and green and social entrepreneurship, and thus to be able to articulate demands, report injustices and generate new discourses and policies.

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6 A good reference to identify greenwashing is the following: Net-Zero Toolkit: Resources to Spot Greenwashing in the Dangerous Net-Zero Framing - ActionAid USA News
• Social organisations, social movements, and institutions should **make visible green jobs or social and sustainable entrepreneurship initiatives that are not mainstream or part of big corporations** (which in Europe enjoys the majority of the funding and visibility), such as crafts, small projects or circular economy entrepreneurship in neighbourhoods, small agri-food businesses in neighbourhoods and villages, recycling of the Roma community, among others. And also projects or initiatives of migrants, that perfectly enter the definition of green jobs but have never received funding, support or visibility as a green job.

### Capacity building and green jobs opportunities for youth

Understanding the socio-cultural and technological challenges of a just ecological transition, employment is a powerful means to transform practices and relationships. In this sense, and building on the field work and learnings of existing programs, some recommendations emanate to enable and empower youth in this regard:

• **Supporting and promoting entrepreneurial projects** with a special focus on youth, migrants and women and other groups that lack employment opportunities, with sufficient economic investments for different projects. The training offer needed in green and social entrepreneurship should also be a target of policies, and more intensely collaborate with private entities and social organisations.

• **Creating platforms to connect entrepreneurs** is key. Preventing young entrepreneurs to feel alone, or from having to bear by themselves the risk of starting a project will guarantee that more people engage in entrepreneurial activities (including lower income and migrant youth, that if left alone face higher barriers). These platforms can act as unions and collective negotiation agents, can offer support to improve business models or services, and connect entrepreneurs and other key stakeholders.

• Training programs should, at least, be two-folded; for graduates of formal studies (in the labour market and also those distanced from the labour market) and for people without studies. To leave no one behind, capacity-building should focus on different levels of education. Different formats can suit different objectives, populations and strategies:
  
  – **Formal education (higher education)** that has shown to significantly contribute to greening the economy are very diverse. Those with more visibility and that already are recognized as important are Environmental, Engineering, Sustainability, Agro-ecology, STEM. Also crucial and in need of a stronger orientation towards the ecosocial transition are Social sciences and Humanities (Degrees and Masters in these).

  – **Formal education (professional training)** counts with the flexibility and adaptability to respond to new economic sectors and activities that are created or transformed for a just transition. Some key areas where it is especially recommended: to acquire skills in renewable energies, regulation and Energy Communities, waste management, circular economy, novel skills in forestry and agroecology management, and cooperatives or novel governance models.

  – **Short training courses** can be useful to tackle a concrete skill, technique or method needed to transition in a concrete economic sector. These are especially useful for workers, youth looking to enter a specific sector, or unemployed. They should be sector-specific and show concrete tools or skills.

• **Hands-on on the job training**, tailored to businesses. Learning in the company, from the specifics of the innovation needed in that sector and activity, through ad-hoc training provided by the company. Public and private collaboration can also help develop training lines for companies so that employees acquire new ways of thinking, approaching problems and techniques, and therefore, promote the ecosocial shift of an existing economic activity.

• **Training of technicians and politicians at multi-level institutions** about climate change, the sociocultural shift needed in a just ecosocial transition and novel methods to work from an intersectoral approach to tackle complex challenges.

• **Training to stimulate the political culture that has been weakened in Europe**. Increasing youth participation in trade unions, as well as generating networks of workers in new sectors is key for them to be able to share experiences and visions about their work, to improve, and also to have a political impact. The formative and participatory processes to enrich the political culture of the labour world is very important. This requires that young people, as a collective, understand themselves as political subjects, learn the dynamics and tools of citizen participation, and create spaces to share and make demands that improve green employment.
Link to the mapping of experiences, key stakeholders and training opportunities