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European Union countries'performance of skills in the context of green inclusive economy

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Our "way of producing and consuming on Planet Earth" has reached the critic point and it's about to break the sustainability threshold. Humankind, right now, is consuming 60% more resources than nature can regenerate. With that being said, we need the resources of 1,6 Earths to provide the current level of production and way of life. If the consumption rate does not change, by 2050, we will need the resources of 3 Earths. The last two crisis humanity has gone through: the financial and the crisis reveal that the context became more and more complex and complicated and we need to assure the resilience of our economy, the well-being of people and the preservation of nature in all regions of Europe in a more efficient, democratic and transparent way.

It's time to focus on actions, not on words. The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its core there are the 17 Sustainable Development Goals (SDGs), which represent an urgent call for action by all countries – developed and developing – in a global partnership. We deliver the sustainable development goals framework: 1)No poverty; 2)Zero hunger; 3)Good health and well-being; 4)High Quality education; 5)Gender Education; 6)Clean water and sanitation; 7)Affordable and clean energy; 8)Decent work and economic growth; 9)Industry, innovation and infrastructure; 10)Reduced inequality;11) Sustainable cities and communities; 12)Responsible Consumption and Production; 13)Climate Action; 14)Life below water; 15)Life on land; 16)Peace and justice strong institutions; 17) Partnerships to achieve the goal.

Green technologies are contributing to balancing environmental protection and socio-economic development, which is critical to creating a sustainable society. Green development is an essential part of economy modernization. The green economy was created after the crisis in 2008, as an important tool for sustainable development; one that is inclusive and can drive

economic growth, employment, and poverty eradication, whilst maintaining the healthy functioning of the Earth's ecosystems. All of those 17 objectives at a different level call for a transformation in economies and societies, of each institution, business, government, academia, communities at local, regional, national level in a systemic and integrated way. This transformation is related to the processes of digitization and digitalization in order to assure the modernization of economies and their sustainability. With that being said, we must understand all these green phenomena; we must transform the new assets we have through the digitalization processes. In this complex context, we need green skills, we need specific skills. Another crisis, like COVID-19 pandemic continues to reverberate and creates a need to secure education continuity, training and jobs in this time of technological, economic and environmental challenges triggering changes in the labour market landscape of skills and jobs (CEDEFOP, 2022).

First of all, in all these processes, people must be mainly equipped with general and specific skills, more adequate for the workplace, also the institutions like labour market must be more inclusive and to allow a better matching between competencies required and those obtained in the school, to reduce the loss in human capital, the transition to school must be more fluid and schools must align with the requirements of the society. In this context the specialists created CEDEFOP's European Skills Index (ESI). ESI measures the performance of national skills systems using a composite indicator approach. ESI monitors countries' performance over time and provides insights into possible improvement areas. ESI delivers evidence that supports the EU policy framework for VET and skills, in particular the European Pillar of Social Rights and the European Skills Agenda. With ESI, CEDEFOP takes a comprehensive approach to characterising skills systems. National skills systems do not only develop the skills of the population but play a crucial role in activating skills in employment and effectively matching them to labour market and workplace needs. This idea is reflected in the three pillars of the index: **Skills development** represents the education and training activities of the country and the immediate outputs of that system in terms of the skills developed; **Skills activation** includes indicators of the transition from education to work, together with labour market activity rates for different groups of the population; **Skills matching** represents the degree of successful utilisation of skills and the extent to which skills are effectively matched in the labour market. These three pillars of the European Skills Index are based on a wide and comprehensive data of 21 indicators from various international datasets.

Second of all, green economy must also perform. The concept of green economy also evolved in the last years. In the near future we expect the green economy to become more inclusive and the global partnership of 2030 Agenda to implement the passage from a global perspective to a planetary one regarding the future socio-economic development. Under an Inclusive Green Economy approach, planetary boundaries should not only be adhered to in a reactive manner but should also be seized as opportunities for the introduction of innovative measures that contribute in particular to "sustained, inclusive and sustainable growth, full and productive employment and decent work for all" (SDG 8). These developments have inspired the creation of an index called The Green Growth Index which measures the performance in achieving sustainability targets including Sustainable Development Goals, Paris Climate Agreement, and Aichi Biodiversity Targets for four green growth dimensions: **efficient and sustainable resource use, natural capital protection, green economic opportunities and social inclusion.**

This paper proposes a cluster analysis, where the clusters are formed using the new indicator European Skills Index (CEDEFOP - ESI), Green Growth Index (GGI) and Gross Domestic

Product/Capita (GDP/capita) to show which countries are better equipped to reach what the Sustainability 2030 Agenda aims. The analysis uses data from 25 states members of EU at NUTS1 in the year 2020 from CEDEFOP database (for skills index), Global Green Growth Institute database (for GGI) and Eurostat (for GDP per capita). Using the method of hierarchical cluster analysis, the results organized by groups in a hierarchical order will show us which countries have simultaneously enough capabilities in term of dimensions skills index, like skills development, skills activation and skills matching and in terms of performance in achieving four green growth index dimensions: efficient and sustainable resource use, natural capital protection, green economic opportunities and social inclusion, as well as a good level of GDP per capita. Based on this analysis, four distinct clusters are identified showing similarities and differences and reflecting the true patterns in the data. The analysis allows us to also, observe the relationship between different sub-pillars of skills index and the green to growth index/sub-pillars of the green growth index at level of whole EU or by clusters. The paper conclusions will offer some insights for future green economy growth policies and also for skills transformation, as well as for labour market and future orientation of educational policies. The policy needs to focus on extensive accelerating of up- and reskilling and providing guidance and support to workers who will need to change occupation, sector or geographic location. Developing transition-oriented skills matching approaches should also be a policy priority, as well as targeted investment (CEDEFOP, 2021).

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