GREEN JOBS OF THE FUTURE: WHAT SKILLS ARE KEY TO SUCCESS IN THE JOB MARKET?

The transformation towards sustainability is affecting all industries, creating new professions and requirements. The growing importance of “green” skills and jobs that support environmental protection and reduce carbon footprint is paving the way for careers in areas related to ecology, new technologies and management. Find out what skills will be valued in the future and what role they will play in the development of the job market.

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Rising consumer and business awareness, along with the new legal requirements related to sustainability, are already driving demand for "green" skills and jobs. The direction of development was charted in the Paris Agreement, during the 21st UN Conference in 2015, which identified the main challenges related to human activity and its impact on the environment.

The result of these negotiations are new regulations being introduced successively by the European Commission, the European Parliament and EU member states. The aim of the changes is to ensure development while limiting negative effects on the environment and the future of generations to come. Regardless of one's position, skills such as critical thinking, creativity and analytical thinking will certainly be of great importance in the future, due to the great uncertainty that will arise in the market as a result of the introduced changes.

According to Polish Confederation Lewiatan, the energy transition will create 300,000 new jobs in Poland by 2030, related to renewable energy sources, nuclear power, electromobility, thermo-modernisation of buildings, as well as, in the broad sense, digitalisation and network infrastructure management.[1] The Institute for Structural Research predicts that up to a third of this number will be related to thermo-modernisation of buildings.[2] This shows that the issue of "greening" a particular job is not correlated with a high level of qualification. However, in most industries, jobs related to green transformation involve managerial and specialized positions, and consequently, the people who will occupy them should have technical or economic education and knowledge.

[1] Konfederacja Lewiatan (2022) "Zielone kompetencje i miejsca pracy w Polsce w perspektywie 2030 roku"
[2] Lewandowski P., Sałach K., Ziółkowska K. (2018), "Wpływ termomodernizacji budynków mieszkalnych na rynek pracy w Polsce"

GREEN JOBS ARE EMERGING IN ALL INDUSTRIES

However, it is important to remember that the mentioned number of 300,000 is just the tip of the iceberg, as the energy transition will affect the entire economy, and new jobs will also emerge in industries that are not included in these estimates. This, moreover, is reflected in the International Labor Organization's (ILO) official definition of green jobs. Accordingly, green jobs are those that help reduce greenhouse gas emissions, minimize waste and pollution, protect ecosystems, and help adapt to the effects of climate change.

As Katharina Bohnenberger, a researcher associated with UNESCO, points out in her paper "Is it a green or brown job? A Taxonomy of Sustainable Employment,"[3] also companies and institutions whose environmental impact is difficult to measure (she cites consulting firms as an example, as well as education) can be considered in these categories if we take into account the business environment and the entire value chain in which the entity participates.

[3] Bohnenberger (2022) "Is it a green or brown job? A Taxonomy of Sustainable Employment" https://www.sciencedirect.com/science/article/pii/S0921800922001318

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HOW TO ASSESS WHETHER A JOB IS GREEN?

Bohnenberger proposed a classification of specific job positions. To assess whether they are "green," four elements should be considered:

- the outcome of the business (whether the product or service is "green")
- the characteristics of the occupation (whether the tasks performed by the employee are part of a sustainable development policy)
- work style (whether working conditions support a sustainable lifestyle).
- the efficiency of the results (whether the environmental damage in the production process is lower or higher compared to other products).

GREEN SKILLS ACCORDING TO ILO

The International Labor Organization (ILO), in its 2018 Skills for green jobs report,[4] outlined 14 "green" skills that will be needed in the labor market in the near future. Most of these are soft skills increasingly in demand across the economy, and their importance grows each year. This should be reflected both in the education system and in internal training provided by companies. The authors of the study divided the skills into those that apply to all employees and those that would be particularly useful to specialists and managers.

7 green skills needed in the job market

1. Environmental awareness and respect for the environment - willingness to learn about sustainability.
2. Ability to adapt and implement new technologies and processes to promote sustainability in the workplace.
3. Ability to work as a team in the context of reducing negative environmental impact.
4. The resilience needed to persevere through the process of change.

[4] ILO (2018) "Skills for a greener future: a global view"

5. Communication and negotiation skills to promote change among colleagues and customers.
6. Entrepreneurial skills that will be useful for identifying and exploiting opportunities associated with low-carbon technologies and to lead activities to mitigate the effects of climate change and adapt to new conditions.
7. Occupational safety and health.

7 green skills sought in positions requiring medium and high qualifications

1. Analytical thinking (including the ability to analyze risks and systems) needed to both interpret and understand the need for a change and to select appropriate measures to implement it.
2. Coordination, management and business skills characterized by a holistic approach, in the context of achieving economic, social and environmental goals.
3. Innovation to identify opportunities and create new strategies to address environmental challenges.
4. Marketing skills will be useful in promoting environmentally friendly products and services.
5. Consulting skills to advise consumers on green solutions, and promote environmentally friendly technologies.
6. Networking, IT and language skills to help operate in global markets.
7. Leadership skills and strategic thinking, which will be especially useful for politicians and managers to create the right incentives and conditions to encourage the implementation of green production and transportation.

GREEN SKILLS ACCORDING TO ILO

In 2022, the European Commission published the European Competency Framework for Sustainable Development, which identified 12 "green" skills. The authors divided them into 4 categories relating respectively to realizing sustainability values, accepting the complexity of sustainability, visualizing a sustainable future, and acting for sustainability.

Making sustainability values a reality

- Reflecting on personal values; identifying and clarifying how values vary among people and over time, while critically assessing their alignment with sustainability values.
- Promoting fairness - promoting equality and justice for the sake of current and future generations, and learning from previous generations to achieve sustainability.
- Promoting nature - recognizing that humans are part of nature and respecting the needs and rights of other species and nature itself in order to restore and regenerate healthy and resilient ecosystems.

Accepting the complex nature of sustainability

- Systems thinking, which will ensure that a sustainability problem is approached from all sides, taking into account time, space and context to understand how elements interact within and across systems.
- Critical thinking to evaluate information and arguments, identify assumptions, question the status quo, and reflect on how personal, social and cultural contexts influence thinking and conclusions.
- Problem formulation - formulating current or potential challenges as sustainability issues in terms of difficulty, people involved, time and geographic scope to identify appropriate approaches to anticipate problems and preventing them, as well as mitigating already existing ones and adapting to them.

Visualizing a sustainable future

- The ability to think about the future: visualizing an alternative sustainable future by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.
- Adaptability: managing transformation and challenges in complex sustainability situations and making decisions related to the future in the face of uncertainty, ambiguity and risk.
- Exploratory thinking, that is, adopting a relational mindset by exploring and combining different disciplines, using creativity and experimenting with novel ideas or methods.

Action for sustainable development

- Political agility: navigating the political system, identifying political responsibility and accountability for unsustainable behaviour, and demanding effective sustainability policies.
- Collective action: acting for change in cooperation with others.
- Individual initiative: identifying one's own potential regarding sustainability and actively contributing to improving the outlook for society and the planet.

As seen in the examples above, green skills can be considered in various ways. It should also be taken into account that both the list of skills compiled by the ILO and the European Commission is not yet closed. As green solutions and technologies become more widespread, and as consumer awareness of sustainability increases, there will be a growing need for experts on topics related to low-emission, gender equality and corporate social responsibility. Skills in this area will be useful in virtually all areas of the economy and at all levels of value chains.

Among the "green" jobs that will increasingly gain popularity in the job market, we will find both those with a technical profile and those that make greater use of soft skills. On the one hand, there will be a need for engineers familiar with new technologies that will serve to reduce the carbon footprint (such as in the case of thermo-modernization of buildings and the development of renewable and nuclear energy) and offset other negative effects of human activity on the environment. On the other hand, auditors, marketing experts, and executives who understand the challenges that the business faces will be needed to present the benefits of implemented changes to society and consumers.

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KEY SKILLS: CREATIVITY AND CRITICAL THINKING

If one looks at the available literature, very often - among the key skills of the future - creativity and critical thinking, combined with environmental knowledge, are listed. This combination is often referred to as the concept of green skills.[5]
It is often considered the essence of innovation, helping companies not only adapt to new regulations, but also initiate their own green solutions and processes. Creativity and critical thinking will be fundamental, enabling decisions and actions that respond to global climate and social challenges.

Creativity allows you to notice opportunities where others see problems. In the context of the green economy, it enables the design of innovative solutions that reduce environmental impact. From engineers developing green technologies, to designers implementing sustainable materials, to managers looking for new ways to save energy, everyone benefits from a creative approach to challenges. For those in green jobs, creativity is becoming a key tool in discovering low-carbon products and services that meet market needs while helping to protect the planet. We explored this trait in greater detail in a dedicated article.

Critical thinking, in turn, is essential to navigate complex and often ambiguous sustainability issues. Employees who are able to analyze available data and draw fact-based conclusions become the backbone of sustainable organizations. Critical thinking helps to assess the effectiveness of methods used, identify potential risks and make the best decisions - whether it's optimizing production processes or minimizing waste. With this skills, companies are able to develop their operations in a responsible and conscious manner, supporting environmental and social goals locally and globally.

[5] https://wyborcza.biz/biznes/7,159911,30423101,rynku-pracy-sie-zazielenia-zielone-kolnierzyki-beda-coraz-bardziej.html

SUMMARY

With the global challenges of climate change and the need to conserve natural resources, green skills are becoming a cornerstone of the modern economy. Many industries will need professionals who understand sustainability and can implement innovative solutions to reduce the impact of human activities on the environment. Creativity and critical thinking, as key green skills, will play a special role in this process, supporting the development of effective solutions to the challenges ahead.

Investing in the development of green skills today is a strategic step that will help Poland build a strong and sustainable economy, ready for new challenges. This will enable both organizations and employees to take advantage of the opportunities offered by the green transformation, while contributing to creating a future in which the balance between development and environmental protection becomes a reality.

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