# Adecco



Sustainable Workforce: Driving Eco-friendly growth

### **Editor's Note**

"You must unite behind the science. You must take action. You must do the impossible. Because giving up can never ever be an option." – Greta Thunberg, US Congress, Washington DC, 17 September 2019

Dear Readers,

We are happy to introduce to you our fourth edition of Inovantage discussing Sustainable Workforce- Driving Eco-friendly Growth - in the context of our usual big three - employment, education and the economy.

The world we live will no longer be able to provide us with resources we need for future generations to survive if we don't take an active initiative to be sustainable. Approaching suitability with a real impactful measurements and holistic systemic changes in how we operate as a species is very important to ensure our survival on our planet.

Greening of existing jobs: As the corporate processes of production and operation will increasingly be required to be more efficient and areener, some existing job portfolios will need to include environmental responsibilities. Integration of environmental curricula at diverse levels of education, including primary, secondary and higher education, TVET, and lifelong learning is key.

How can businesses create a meaningful impact on the SDGs? It starts with building a framework for sustainability.

By 2025, Millennials – those born between 1976 and 2001 – will comprise 75% of the total global workforce. Unlike previous generations, which prioritized money, power and prestige, Millennials are more prone to work for the causes they support. 61% of employees were more likely to stay at a company because of the organization's sustainability program. Employees not only

just prefer to work for a green company committed to sustainable development, but also they would take 15% salary cut for a green company.

Globally, 18 million new jobs will be generated by the green economy by 2030. Largest growth is seen in Solar jobs followed by biomass and wind energy related jobs.

In the EU - while the public sector remains an important source of green employment, sectors such as renewables, waste management and transport begin to dominate: in 2021 and 2030, respectively, waste management's share rises to 24.4% and 25.7%, energy's to 21.4% and 18.9%, and transport to 11.4% and 17.7%. Water footprint managers, In-vitro Meat Scientists, Source Traceability managers are some of interesting Green jobs of the future!

We sincerely thank our academic & commercial partners for their contribution to the report and for supporting us in the publishing of valid research material, with a CEE focus, in the sphere of employment & education.

Happy Reading!

Yours Sincerely,

Angelo Lo Vecchio & Sandhya Sabapathy

Regional Team (Eastern Europe, Middle East and North Africa)







2030 UN SDGs & impact in relevant countries
 Skills shift & Policy in Greening of jobs
 Why is it important to have a sustainability framework?

Frannendork For Sustainable Growth

### Framework for Sustainable Growth

As Adecco Group, we hope to engage in the discussion of sustainability & purpose-building not as experts in environmental science but in viewing the importance that must be placed in these topics within society and how education & employment must conform to support our planet's needs.

Over the next few chapters we decode the UN sustainable

development goals, how green jobs are changing the economy, ways to implement sustainability in our workplace and howto develop a framework to ensure deep penetration of a sustainability mindset in any organization – with a focus on CEE & MENA markets.

### What are the 17 UN SDGs?



After a dozen or so years since most of the CEE countries accession to the European Union, their current situation is quite different, as they have made a significant leap forward in prioritizing steady economic and social growth. For example, for a long time the unemployment rate in the Czech Republic was the lowest in the entire European Union, now it is below 2%. All the CEE countries are characterized by the highest level of the Human Development Index (HDI). "Very High Human Development", showing values above 0.8 since 2017. The region is becoming increasingly attractive in terms of bringing foreign investment, and the CEE countries also coped relatively well with the global crisis of 2009–2010, achieving above-average levels of economic

growth, measured by the gross domestic product (GDP) in the years following. (1) This has all contributed to a positive outlook on approaching the SDGs incorporating real impactful policy and even thought CEE has some catching up to do to Western Europe, it's mostly on the right track. In a few countries, objectives, goals and targets that can be considered green economy ones are included under the national development plan (Czech Republic, Turkey), are part of the strategic partnership agreement with the European Commission for the implementation of the Europe 2020 targets (Greece), or are included in reforms related to harmonization with the EU acquis communautaire (Serbia).





#### The positions of individual CEE countries regarding SDG implementation level in the years 2010-2016.

Authors' compilation based on Eurostat. Database: Sustainable development indicators

Slovenia is the leader in the analyzed period, except for 2011 and 2014 (Figure 1). In 2011 and 2014, the leading position was taken by the Czech Republic which, in other years, was ranked second. Romania was ranked last in all analyzed years.

Most countries in the region are using public investment programmes to green certain aspects of their economies. Some countries focus on research, development and innovation, knowledge hubs and technology transfer (Czech Republic, Republic of Moldova). Other countries focus more on infrastructure development or refurbishment (such as Romania's green housing programme). And some countries focus on areas, such as climate change, flood and land disasters and reclamation of urban industrial sites or energy and resource efficiency (Czech Republic). Countries of the region are investing in capacity development, or are considering doing so, by training public administration staff at different levels to deal with green ECE/CEP/2014/5 11 economy issues. Some countries do it as part of training on sustainable development (Georgia, Serbia). These include environmental fiscal reform (Republic of Moldova), cost-benefit analysis of projects with high environmental impacts (Georgia), green public procurement (Romania). EIA and SEA (Greece), corporate social responsibility (Poland), or stakeholder dialogue and cooperation (Poland). In countries with economies in transition, capacitybuilding for public administration staff is often done as part of technical cooperation projects. (1)

#### Professor Robert Szwed, University of Lublin, Poland gives us his opinion on the political and sociological aspects of sustainability in CEE.

Although after the elections to the European Parliament (2019), the pro-ecological Greens/EFA Group is the fourth political force (74 deputies), only single deputies from the Czechia, Lithuania, and Latvia will represent Central and Eastern Europe. Surveys (Eurobarometers) conducted periodically among Europeans indicate that environmental problems are "less important" for Central European societies than for Northern and Western European societies. This overlaps with the belief expressed more often by the Bulgarians, Latvians, or Estonians, compared to the Dutch, Swedes, or Irish, that as individuals they have an impact on environmental protection.

Despite this very many positive changes are happening against the expectations of lobbying groups supporting traditional fossil energy sources and industrial-scale livestock farming, as well as the expectations of many politicians for whom the axis of the public dispute is national ambitions, sovereignty and the policy of further "acceleration" based on ever-increasing production and consumption. The good news is the growing ecological awareness of European societies observed in the surveys. However, what is interesting is that not only in Poland or Hungary, but also Belgium or the Netherlands, fears and concerns related to the state of the natural environment concern not their local environments but rather the general problem of "environmental protection worldwide". When the source of concern about the condition of the natural environment is the result of our daily observations and awareness of the direct impact of each, most daily choice on the environment, then social pressure to change the climate policy will grow. This will result in taking specific actions to increase the well-being of humanity, closely linked to the condition of the environment.





### Many assessments understanding the inherent systems in place for CEE regarding sustainability and green initiatives have also identified concerns and emerging needs including:

- Countries and organizations tend to be selective in the themes considered. This flexibility may ' water down' the green economy concept to the point that it becomes almost meaningless.
- Institutional complexity associated with undertaking assessments leads to poor coordination, overlapping competencies and lack of
  effective change.
- Progress towards a green economy is hampered by insufficient financing, a limited use of economic instruments or political emphasis on other issues.
- There are information gaps at both spatial and temporal levels, partly due to the lack of monitoring systems, inconsistent data and inadequate data flow mechanisms.

This has lead to goal definition by the UNECE for CEE countries as follows (1)

### **Objective 1:**

Reduction of environmental risk and ecological scarcities:

- **Goal 1.1:** Improve the conservation and sustainable management of natural capital
- Goal 1.2: Enhance internalization of externalities causing loss/damage to natural capital
- **Goal 1.3:** Maintain and enhance ecological infrastructure

### **Objective 2:** Promotion of sustainable consumption and production patterns to enhance welfare gains:

- Goal 2.1: Shift consumer behaviour towards more sustainable consumption patterns
- Goal 2.2: Build and maintain climate-resilient and low-carbon infrastructure
- **Goal 2.3:** Encourage fair trade
- **Goal 2.4:** Strengthen cleaner and resource-efficient production processes
- **Goal 2.5:** Strengthen the circular economy
- Goal 2.6: Enhance green innovation and clean/eco-friendly technology transfer
- **Goal 2.7:** Foster the emergence of new green markets and activities

#### **Objective 3:**

Improvement of human well-being and social equity:

Goal 3.1: Develop human capital for green jobs

Goal 3.2: Increase green and decent jobs

Goal 3.3: Increase public and business sector participation in green transition decision making processes

**ALEXANDRA PETCU, Entrepreneurship Project Manager, West University of Timisoara,** puts the goal definition in context to Romania. In 2018, the environmental protection expenditure at national level amounted to RON 14.7 billion, accounting for about 1.6% of GDP. Of total expenditure, only 20% is related to investment for environmental protection purposes, the remaining 80% accounted for being pure expenditure that affects profitability rates. When discussing environmental protection investments, 93% of the amounts is invested in direct air/water/soil/waste management and only 7% are considered investments with an indirect, positive impact on the environment. Encouraging green reporting and green investments at all corporate governance levels, SMEs included, could generate an enhanced interest on private environmental investment, translating into positive externalities, rather than the mere reporting for environmental protection expenditure.<sup>1</sup> According to Rania Assariotaki, ACG Sustainability Manager, Office of Public Affairs, The American College of Greece, <sup>1</sup> The 2019 SDG Index & Dashboards Global Report notes that unfortunately Greece demonstrates major and significant challenges towards achieving or even moderately improving most of the 17 SDGs. The most "surprising" and worrying numbers are those related to SDG 12 - Responsible Consumption & Production, where all KPIs (e-waste, SO2 emissions, nitrogen production footprint, non-recycled municipal solid waste) are facing major challenges and there has been no improvement. Specifically, in terms of recycling we are third from the bottom among other EU

along with aluminum cans, consist 50% of the waste that is found in our seas. In addition, Goal 4 – Quality Education, is facing significant challenges in its achievement worldwide, including Greece. Based on the 2019 report, the challenges encountered are connected to the targets that are correlated to excellence and equity in education (measured by PISA, the OECD Program for International Student Assessment). As an educational institution, ACG focuses on Goal 4 and part of our mission is to provide equal access to quality education for all.

countries. Similar, alarming, findings have been revealed regarding the plastic waste found in Greece's seas. Specifically, plastic bags and bottle,





#### Employment in a circular economy

The ILO also estimates that in working towards a circular economy.5 a net total of between 7 and 8 million new jobs will be created by 2030, as compared to a business-as-usual scenario. The extension of these estimates shows that in the circular economy scenario, nearly 78 million jobs will be created and almost 71 million destroyed. Of those workers whose jobs are destroyed, a large proportion – amounting to nearly 49 million – will find vacancies in the same occupation in other industries within the same country, that is, through reallocation. As for the remainder, close to 29 million jobs will be created without reallocation, and a little under 22 million will be destroyed without vacancies in the same occupation opening up in other industries. Shows the 20 occupations that will figure most prominently in job destruction and reallocation in the circular economy scenario.

Only 2 per cent of global jobs are at risk of disruption, but the creation of over 100 million jobs is conditional on training in both the energy sustainability and the circular economy scenario, it is estimated that only around 2 per cent of the global labour force will be affected. This represents a much lower share than estimates of the jobs potentially lost to automation and the digital economy (e.g. McKinsey Global Institute, 2017; Frey and Osborne, 2013). Moreover, for most of those 2 per cent of workers, jobs will not disappear, but will require reallocation and reskilling. Even workers in the jobs that are expected to disappear with no equivalent vacancies in other industries - possibly over 1 per cent of the global workforce - may well be able to use their skills in growing industries with some additional training. There is a set of core and technical skills that are potentially transferable, within occupations, from declining to growing industries; but retraining will be needed to enable workers to acquire new skills for use in the latter of particular importance will be core (or soft) skills, which can confer a comparative advantage as they can be transferred across occupations.

### Occupations most susceptible to job destruction and reallocation across industries in a global circular economy scenario, 2030



Note: the figure shows percentage difference in employment between the scenario of a sustained 5 per cent annual increase in recycling rates for plastics, glass, pulp, metals and minerals across countries and related services, and a business-as-usual scenario (the 6°C scenario) (ILO, 2018). For detailed information on the methodology, see ILO, 2018, pp. 39, 162 - 170.

Source: ILO calculations based on EXIOBASE v3 and national labour force surveys.



### Skill evolution needed by the circular economy and the energy sustainability framework:

Circular economy scenario

Energy sustainability scenario

Occupational health and safety

Knowledge of retail industry Supervisory skills

Ouality assurance and control

Scheduling Budgeting

Attention to detail Physical abilities

Organizational skills Problem solving Estimating

Commercial construction Writing Leadership

Presentation skills Business development Sales management Building effective relationships Organizational skills Enterprise Resource Planning (ERP) Customer handling Problem solving Microsoft Office Writing Budgeting Scheduling Numeracy Research Sales and marketing skills Repair Product knowledge and handling Leadership Communication Multitasking Physical abilities Computer literacy Planning Knowledge of retail industry Creativity Teamwork/Collaboration Troubleshooting Attention to detail Time management Project management

High-skill occupations

Construction management Microsoft Office Cost control Project management Time management Procurement Logistics Planning Staff management Computer literacy Quality management Teamwork/Collaboration Customer handling Sales and marketing skills Communication Building effective relationships

Physical abilities Knowledge of retail industry Time management Cash handling **Customer handling** Problem solving Scheduling Attention to detail Communication Retail management Cleaning Writing Microsoft Office Multitasking **Sales and marketing skills** Computer literacy Store management Plumbing Repair Asset protection Lifting ability Building effective relationships Store operations **Teamwork/Collaboration** Numeracy Cash register operation Supervisory skills Inventory management

Organizational skills Product knowledge & handling

> Microsoft Office Facility maintenand

**Customer** handling

Heating, ventilation & air conditioning

Cleaning Writing Lifting ability Troubleshooting

Multitasking Physical abilities Painting

Machinery Sales & marketing skills Attention to detail **Repair** Plumbing

Vehicle inspection Teamwork/Collaboration

Organizational skills Problem solving Scheduling

**Communication** Computer literacy

Knowledge of retail industry

Quality assurance and control Forklift operation

Housekeeping Electrical devices Contract preparation

#### Medium-skill occupations

Microsoft Office Troubleshooting Communication Problem solving Physical abilities Packaging Carpentry Knowledge of retail industry Scheduling Building effective relationships **Customer handling** Lifting ability Heating, ventilation & air conditioning. Food preparation Cleaning Repair Numeracy Plumbing Writing Power tools Multitasking **Sales and marketing skills** Organizational skills Food safety Product knowledge & handling Hand tools Forklift operation Work area maintenance Teamwork/Collaboration

Attention to detail

Work area maintenance Teamwork/Collaboration Attention to detail Lifting ability Knowledge of furniture industry Problem solving Scanners Machinery English Hand tools Computer literacy Cleaning Repair Physical Scheduling Physical abilities Microsoft office **Customer handling** Writing **Organizational skills** Numeracy **Communication** Product knowledge & handling Hand trucks Knowledge of retail industry Manual Dexterity Sorting Sales and marketing skills Material handling skills Order picking skills Forklift operation



Low-skill occupations



#### Important factors in skills development policies for greening, with relative performance, by income level



Greening of existing jobs: As the corporate processes of production and operation will increasingly be required to be more efficient and greener, some existing job portfolios will need to include environmental responsibilities. This may require the integration of environmental curricula at diverse levels of education, including primary, secondary and higher education, TVET, and lifelong learning. The United Nations Environment Programme (UN Environment) estimated in its 2011 report the long-term shift in the energy sector jobs that would occur as the portfolio of energy sources will change over time. According to its G2 scenarioiii, and compared to a business-as-usual (BAU) scenario, employment will be created in the areas of energy efficiency and renewable energy, adding 5.1 million jobs in energy efficiency and growing from 3.3 million to 5.2 million jobs in renewable power generation between 2010 and 2058. Employment in thermal power will decrease from 5.5 million to 5.3 million jobs, while jobs in coal production will shrink from 1.8 million to 0.8 million. The total number of energy-related jobs will see an increase as demand grows.



#### Estimated long-term shift in energy sector jobs





### Policies for green jobs

The European Union (EU) documents a range of policy measures that have already been applied by its Member States to promote and leverage green jobs. As the figure below, shows and more detailed The European Union (EU) documents a range of policy measures that have already been applied by its Member States to promote and leverage green jobs. These measures are largely categorized into primary measures, supporting measures, and financial tools. (1)



The European Statistical Office (Eurostat) provides a universal classification of the environmental goods and services sector (EGSS), which is taken as green industries, consisting of environmental protection and resource management activities.

	Classification of the environmental goods and services sector						
1	Protection of ambient air and climate	2	Management of forest resources				
3	Wastewater management	4	Management of forest areas				
5	Waste management	6	Minimization of the intake of forest resources				
7	Protection and remediation of soil, groundwater and surface water	8	Management of wild flora and fauna				
9	Noise and vibration abatement	10	Management of energy resources				
11	Protection of biodiversity and landscape	12	Production of energy from renewable sources				
13	Protection against radiation	14	Heat/energy saving and management				
15	Research and development	16	Minimization of the intake of fossil resources as raw material for uses other than energy production				
17	Other environmental protection activities	18	Management of minerals				
19	Management of waters	20	Research and development				





#### KNOWLEDGE BOX:

The Case Against Paper Straws - They're a single-use, disposable consumer item - a greener option, bu not a green one. The straw debate is not really about straws. It's about the broader effects of a culture of thoughtless consumption and disposal. To consider whether to take a straw is to be conscious, even fo a fleeting moment, of the resources it takes to prop up the illusion that life is cheap or convenient.

To decline one is to recognize in some small way that changing the course of the planet's degradation will require us to give up some things we once took for granted, and reminds us that the environmental calamities we bemoan are in part a result of our own choices and preferences. Plastic straws could disappear from the face of the earth tomorrow and there would still be too much plastic in the sea. But we must start somewhere. Use fewer or no straws. (4)



**Professor Robert Szwed from University of Lublin, Poland,** also notes that it's important to understand how awareness itself is an important starting point. The media, NGOs, schools and universities play a special role in building the environmental agenda. Owing to them, it is green ideology that is gaining more and more publicity in Central and Eastern European societies. Each of these institutions has a slightly different role, although the goal of all is to increase awareness, understanding and building positive attitudes towards environmental issues. The media disseminate the necessary information, and educational institutions and NGOs are more responsible for shaping motivation, attitudes, knowledge, and skills as regards pro-ecological behavior. Activities undertaken by all these institutions need to be improved. The media should speak about existing threats in an understandable way (e.g. "heat-trapping pollution" instead of "greenhouse gas", and "global warming" instead of "climate change"), interesting and pointing to the local consequences of global changes (e.g. drought, air pollution, water deficit). On the other hand, pro-ecological education in Europe is still informal and in this respect action type, ad hoc activities are dominant. They are extremely important and effective in contemporary, changing societies (changes in interpersonal relationships, communication forms, complexity and fluidity of identity), but they can be significantly strengthened by systemic actions at the level of local governance and the entire state. Building a favorable framework for pro-ecological activities, e.g. business, will be a positive stimulus for those enterprises that do not see the sense and benefits in such activities. Although more and more organizations and companies are implementing the principles of "corporate social responsibility", there remains a huge space in this area for further development.

### **Building a sustainability framework**

How can businesses create a meaningful impact on the SDGs? It starts with building a framework for sustainability. Every business needs to prioritise. For corporate responsibility and sustainability professionals, a strategy sets out the priorities. It provides an agreed framework for deploying resources, creating an impact and communicating results. When done effectively, the process of developing a strategy - as well as the resulting framework - can help to: Build buy-in amongst colleagues. Guide resources and investment into the areas that are most important. Engage external stakeholders in a meaningful dialogue. Drive performance by stretching the company to achieve goals.

What are the main priority drivers to build a framework?







Classification of the environmental	goods an	id services sector
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Vision	The desired end-goal; a picture of the future world that the organisation wants to create.	Inspirational and business-relevant languate to tie the strategy back to what the company is trying to achieve.
	How the organisation plans to deliver its vision - what it does, who it does it for, and sometimes how. Here are the missions of the world's three most valuable brands.	The mission of the company is a critical starting point for strategy as it expains what the business is setting out to do.
Mission	<b>Apple.</b> Steve Jobs' mission statement in 1980 was: "To make a contribution to the world by making tools for the mind that advance humankind"	Traditionally, for most companies, the <b>purpose</b> of the busiess was all about shareholder value. Whilst financial viability is still fundamental to success, many more
	<b>Google's</b> mission is "to organize the world's information and make it universally accessible and useful."	companies are articulating a purpose beyond profit. A purpose answers the questions: why does my company exist? It sets out the change that
	<b>Coca-Cola's</b> mission is to " To refresh the world To inspire moments of optimism and happiness To create value and make a difference."	the business wants to achieve in the world - its passion and reason for being.
Values	The guiding principles by which the organisation lives and judges its behaviours.	Values should be reflected in the sustainability strategy. The strategy should provide some tangible means by which to bring the values to life. (2)

Rania Assariotaki, ACG Sustainability Manager, Office of Public Affairs, The American College of Greece, offers her suggestions for the Greek market: Take into consideration the 10 Principles of the UN Global Compact. Indicatively, protect human rights, uphold labor standards, promote greater environmental responsibility, and work against corruption. Study the 17 UN SDGs and work towards achieving the most applicable ones for the corporation based on its operations, mission, vision, and values. Focus on ISO 26000 which provides guidance on how corporations in a socially responsible way, contributing to the health and welfare of society. When building their sustainability framework they must make sure to identify, prevent, mitigate and account for any negative impacts they may have on society and the environment, and establish a culture of integrity and compliance. The goal should be to start creating a sustainability culture within the organization. Finally yet importantly, they must choose an applicable assessment tool in order to evaluate their sustainability framework and make necessary changes/improvements, if necessary.

### Where does Adecco Group stand on sustainability?



### Adecco's Integrated Sustainability Framework 2030

The framework is fully integrated into our business strategy, uniting our existing activities and outlining opportunities where we can implement new initiatives. In line with the Group's strategic agenda, for each issue we will look at how we can institutionalize best practices within our own operations (Perform), enhance our value proposition towards our stakeholders (Transform), and/or fuel innovation along the full value chain (Innovate).



The Adecco Group purpose and core values; Commitment to the principles of the UN Global Compact





### Froso Tzioti, Country Safety, Health & Environment Officer in Nestlé Hellas talks about susainabiloty at Nestle, the major green trends in the FMCG industry & current initiatives used by Nestle Greece to improve sustainability

Our approach creates value not only for our business, but also for individuals and families, for our communities and for the planet. For individuals and families, we're working to make our portfolio even healthier and tastier, inspire consumers to lead healthier lives, and develop and share our understanding of the connection between nutrition and health. At the same time, we aim to develop thriving and resilient communities as part of a secure, long-term supply chain. We focus on enhancing rural development and livelihoods, respecting and promoting human rights and promoting decent employment and diversity. For the planet, we strive for zero environmental impact in our operations and have set clear commitments to use sustainably managed and renewable resources, operate more efficiently, achieve zero waste for disposal and improve water management.

Tackling plastic pollution is an urgent priority for our industry, and a responsibility we need to take very seriously. Actions to tackle plastic waste are a major green trend in this sense. Another focus area is the commitment to Zero Waste to Landfill & Recycling. Collecting and sorting waste is a big trend even though it can be very challenging particularly in countries without formal waste management systems. Using electricity from renewable sources is also a very significant green trend. Achieving a balance between emissions and removals for all greenhouse gases is undoubtedly a priority.

Nestlé's purpose worldwide is enhancing quality of life and contributing to a healthier future. In that sense, in Greece, we are developing initiatives to create shared value across everything we do. Recycling, zero waste to landfill, reduce electricity consumption, 100% electricity from renewable sources for our 2 factories in Greece, reduce water consumption, AWS certification for our Korpi factory, ETS (Energy target setting) and WTS (Water target settings) are our main initiatives that enable us meet our purpose.

**ALEXANDRA PETCU, Entrepreneurship Project Manager, West University of Timisoara,** also chimes in . For a comprehensive approach to sustainability, corporations should encompass green directions in all policies, strategies and functions, articulating into a total green quality management mission. From green procurement to green marketing, from green recruitment to sustainable HR practices, and from green reporting to sustainable finance and investment strategies.

Creating a sustainability framework might seem overwhelming as a whole, but organisations could start from good-practice examples, such as: recruitment based on environmentally-friendly attitudes and values, HR practices including green workspaces, green teambuilding activities etc., investments in company's corporate urban garden with employees spending a certain amount of time daily for active relaxation etc.'

Defining a sustainability purpose is important regardless of the size of the business. **Gizem Yasa**, one of the Top CEE entrepreneruers as named by Adecco Group's entrepreneurship initiative, discusses how her app 24 Saatte is focusses on sustainability. '24 Saatte is a digital, location based marketplace that brings jobseekers and companies together. It eases the hiring process by using an Al based algorithm that matches the right employer with the right employee. There are two ways in which we aim for a greener future in HR. Firstly, 24 Saatte is a **location based** mobile app. Candidates are matched with the jobs that are closest geographically cutting on transportation costs along with time savings spent on commute. Secondly, we are a company that aims to shift the old school trends with new methods, making them more efficient, paperless and green, helping companies create an environmentally responsible hiring system.'



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How sustainable office design improves employee productivity
The business case for sustainable workspace design
What can HR and People teams do to drive sustainability?

Sustainable Bustereseeres

By 2025, Millennials – those born between 1976 and 2001 – will comprise 75% of the total global workforce. Companies must adjust their policies to attract and retain Millennial talent. What are Millennials looking for in a job? Opportunities that will allow them to make a difference in the society they live in.

Unlike previous generations, which prioritized money, power and prestige, Millennials are more prone to work for the causes they support. The Case Foundation 's 2014 Millennial Impact Report, at least 50% of the Millennial respondents said they considered a company's involvement in various causes as a motivating factor for seeking and accepting a job. Companies do not necessarily have to enact direct purposes such as "creating clean water supplies to drought-stricken countries in Africa" or "providing microloans to disadvantaged women in India." They should, however, set goals like dedication to CSR or a drive to meaningfully support employees.

Anna Wicha, Country Manager of Adecco Group Poland looks at ecological ideology in the Polish market, 'KPMG data shows that an average company uses 8,000 A4 sheets a year, which translates into one medium-sized tree. Cutting on paper use in companies and electronic document circulation are one of the cheapest and fastest methods to develop eco-behavior.

Looking at the economic market in Poland, it can be said that today eco is more than just an image, it is the company's certain ideology. For example, one of the popular megastore chains introduced the position of energy saving leader a few years ago. Such an employee is to take care not only of the prosaic turning the lights off, but also look for new, ecological solutions for the company – such as the use of, for example, green energy.

Climate change is one of the biggest challenges for businesses and the future of employment. Poles, both female and male, are beginning to notice ecological discourse in public space. According to the "Attack of the Earthlings" report as much as 72 percent. Poles believe that the climate crisis is serious and remedial measures should be implemented immediately. Their fears translate into attaching more importance to action for the climate, which should also be undertaken by employers. Helping the environment by business today has become more important than ever."

Integrating social causes into business operations (i.e., building a sustainable workplace) may seem frivolous at first to some, but is a good investment for the future. Companies get to hire new people and are able to retain the good people they already have. According to a survey by the Society for Human Resource Management (SHRM), 61% of employees were more likely to stay at a company because of the organization's sustainability program. Simply put, a sustainable workplace helps companies save thousands of dollars in hiring, training, compensation, benefits, etc.

Sustainable Norkspaces



Professor Edit Szabó, Budapest Metropolitan University adds on to this, 'Research shows, employees not only just prefer to work for a green company committed to sustainable development, but also they would take 15% salary cut for a green company.'

One of Adecco's candidates from Greece Christina Adrami, who specializes in textile management and is passionate about sustainability in Fashion, identifies with the need for a sustainability purpose. 'Sustainability is rapidly growing in the European Union as it could become a significant competitive advantage against economy-giants such as China and the USA. Greece is not yet the leader in sustainability in Europe, but in my opinion has all the capabilities to become one. Therefore, what may be needed at the moment are people with passion and knowledge on how to cultivate the sustainability culture, as well as courage to take the risk and step away from traditional practices that are aligned with the wasteful-linear economy. As a professional I try to stay up to date with legislations and innovations with regard to sustainability in my area of expertise, in order to be able to offer the best solution to my company that would drive profitability, without harming the environment nor the society. Undoubtedly, as a professional I seek to work for ethical and sustainability-orientated companies, which is not always easy to find nevertheless there is always potential and it is up to people to turn their choices towards greener practices, one step at a time.'

**Magdalena Dudzińska, Administration Specialist, a candidate placed by Adecco Group Poland** states how important it is for her sustainability mentality to be reflected in where she works. I try to live in a way that protects the environment. I sort waste, save energy and water, I don't buy water in plastic bottles and drink tap water instead, I don't buy too many clothes and I don't eat meat. I try to be an informed consumer. I also encourage my family and co-workers to adopt eco-friendly behaviours. I must admit that it's also important for me that the company for which I work or intend to work is socially responsible. When choosing job offers, I closely monitor company websites and check if they follow the principles of CSR. This is because of my beliefs – I'm convinced that joint action aimed at protecting the natural environment and broad education are key to success and to involving as many people as possible in climate action. We do that for ourselves, but also for future generations.'

#### Increased Market Value

Recent studies show that companies investing in sustainable workplaces perform better than companies that don't. According to the Economist Intelligence Unit's report Doing Good: Business and the Sustainability Challenge, there is a correlation between stock performance and corporate social responsibility (CSR) performance. The report surveyed 1,254 senior business executives and determined that companies that paid more attention to sustainability issues had the highest share-price growth. In sharp contrast, the firms that performed poorly paid little or no attention to sustainability issues.

Increased stakeholder vigilance is a major contributing factor to the link between stock performance and CSR performance. The Internet and its low-cost collaborative platforms have given stakeholders light-speed access to information on almost every corporation in the world.

Anna Wicha, Country manager of Adecco Poland puts her experiences in Poland into perspective: 'When does the company behave in a socially responsible way? When it voluntarily takes into account social and environmental problematic issues in its commercial activities and in relationships with its stakeholders. Finally, when the product creation or service provision is based on sustainable and environmental principles.

"Everything ecological is more expensive" - this is the belief among many business owners, which also often discourages entrepreneurs from applying eco solutions. Is being eco associated with an increase in costs? No. Ecologically, doesn't also mean spending money. Good habits that we will pass on to our employees will also help us and our company be closer to nature. There are many solutions where change costs nothing at all. An example would be changing the seller of electricity to one that offers us the so-called green energy, choosing such companies for cooperation that do not expect and do not prefer paper invoices, contracts, or orders themselves."

#### Sustainable Design:

#### How Does it Better the Workplace?

• Economically. Sustainable workplaces help employees do more (improve productivity), reduce operational costs (through energy cost savings), eliminate waste (renewable/recyclable materials), and provide the flexibility to adapt to change.

• Socially. People are immediately and constantly linked to the place where they work. Studies show that people are happier at work when they have access to the natural environment. Monika Kowalska, Project Leader at Fed Ex Poland, is a candidate who Adecco Poland placed notes that, 43 percent of Fortune 1,000 firms have filed Corporate Social Responsibility Statements that indicate their carbon footprints and corporate sustainability goals. Sustainable workplaces can instill pride in the workforce and demonstrate an organization's commitment to "walk the talk."

• Environmentally. Sustainable workplaces respect the planet.

Sustainable Norkspaces

Workplace design is one of the most undervalued tools that can be used to help achieve goals. The power of space to influence our energy, interaction, health, and drive is tremendous.

#### Showcasing sustainability

Large corporations have long used their headquarters to reinforce or change their corporate identity. The thrusting opulence of the buildings that house many of the major banks in top cities is no accident. In a similar vein, the Co-operative's headquarters mark a growing trend among large companies looking to showcase their green credentials through their HQs.

Key to many modern integrated heat and cooling systems is the recovery of what would previously have been "waste heat", such as from IT systems, refrigeration and extractor fans. This recovered heat can then be re-used to provide hot water or heat other parts of a building. Integrated systems are increasingly making use of variant refrigerant temperature technology as well. This allows property managers to constantly monitor temperatures within buildings and accurately judge the required capacity. They can then adjust refrigerant temperatures accordingly to reduce waste.

Smart metering and controls can generate detailed histories of systems to help pinpoint areas where savings can be made. Thermal modelling can also help to clarify where heat recovery opportunities may lie. The consequent decrease in energy bills means that the upfront costs of installing complex integrated systems can often be recouped relatively quickly.

Flagship corporate buildings have positive environmental impacts that extend well beyond the immediate reductions in energy use and carbon emissions. (1)

Rania Assariotaki, ACG Sustainability Manager, Office of Public Affairs, The American College of Greece says, 'Regarding the structural aspects in green office design, one must focus on increasing access to natural light, fresh air, incorporate more real plants, water and views into buildings to improve stress recovery rates and cognitive functions, lower blood pressure, enhance mental stamina and focus, decrease violence and criminal activity, elevate moods, and increase learning rates (biophilia). Also, use ergonomics to create safe, comfortable and productive workspaces in order to prevent work related somatic injuries (e.g. tendonitis, back pain, eye strain, etc.). Another element is to reduce acoustical and visual distractions to allow for personal regeneration, as continued interruptions are likely to have negative effects on mood and reduce the motivation to resume work. Finally, due to the transition to a smarter, more high-tech, workspace, we have the opportunity to both minimize the environmental impact (e.g. lower carbon emissions) and benefit workers' well-being (e.g. work-athome, flexible schedule policies and video-conferencing). Essentially, providing workers the choice on how, when, and where they work. Epidemiological studies show that employees who feel more in "control" of their work and work environment are less likely to suffer from heart disease and stress.



In Romania, The "Casa Verde" or "Green Home" initiative was a funding scheme proposed in late 2008 by the then Ministry of Environment and Sustainable Development to provide 150 Million Euros to assist homeowners (primarily) and businesses integrate renewable energy solutions. The initiative was suspended in early 2009 but a relaunched program has been promised by the new Minister of the Environment and the President of the Environmental Administration Fund – caretaker of the funds and the program. The Romania Green Building Council has requested to provide guidance for the implementation rules of the program to ensure an effective, transparent, and successful initiative. The UAE government is embracing green building legislation. The emirate of Abu Dhabi has recently introduced its own "Estidama" rating system for Communities, New Buildings and Villas. However, no formal incentives are offered for retrofitting existing buildings as the UAE is a tax free state. The high profile MASDAR initiative is a project to develop a zero carbon city based in Abu Dhabi. The construction of the first stage is completed, which includes a 10 MW solar power plant.

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11 of the Fastest Growing Green Jobs
 Examples of Sustainability Careers That Merit Consideration
 Top Green Jobs Of The Future



In the hope that we have already convinced you in the past two chapters about the scope of growth of eco-friendly practices & the day-today implications of the same at your workspaces, lets deep dive into, as the ILO puts it 'Greening of Jobs'.

The world of work is intrinsically linked to the natural environment. Jobs in agriculture, fisheries, forestry, tourism and other industries including pharmaceuticals, textiles and food and beverage depend on a healthy environment. Temperature rises like those expected due to climate change will increase the number of days that are too hot to work, putting workers' health at risk and reducing productivity. We may soon reach the point in which the jobs created or improved by economic development risk being destroyed or worsened by the resulting environmental degradation. The world of work needs environmental sustainability. Social justice requires it, given the large inequalities in the impact of the negative effects of environmental degradation.

Globally, 18 million new jobs will be generated by the green economy by 2030.

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#### Let's look at the Global breakdown of Jobs relying directly on the eco-system in 2014. (1)

Jobs relying on ecosystem services, 2014 (thousands)								
Sectors	Examples of ecosystem services	Africa	Americas	Asia and the Pacific	Europe	Middle East	World	
Most activity in the sector is related to biodiversity and ecosystem services								
Agriculture	Capactic recourses		42 600	670 476	42 108	4 248	976 694	
Forestry	and stock avaibility, freshwater, pollination, seed	1 634	1 103	11 866	2 061	36	16 700	
Fishing	dispersal	5 118	2 264	36 491	603	252	44 728	
Food, drink and tobacco	Food, fibre and freshwater	3 267	10 470	46 141	11 083	510	71 471	
Wood and Paper	Fibre, water purification and waste control	487	3 605	7 789	3 694	126	15 701	
Renewable energy	Fibre for biofuels	123	292	1842	737	107	3101	
Water	Freshwater supply, recycling, regulation, purification and natural hazard regulation	23	136	414	320	57	950	
Most activity in the sect	or relies on biodiversity and ecosystem	services, but t	hey do not de	termine the nat	ture of the se	ctor		
Textile	Fibre, water purification and waste control	595	5 409	39 423	4 263	165	49 855	
Chemicals	Genetic resources, biochemical diversity, freshwater	247	2 254	10 938	1 388	<0,5	14 827	
Environment-related tourism	Food, freshwater, air quality, edu- cation, aesthetic and cultural value	2 282	7 110	23 081	4 828	357	37 657	
Total by region		231 039	75 244	848 461	71 084	5 856	1 231 684	
Share of total regio- nal employment		59 %	17 %	47 %	16 %	15 %	40 %	

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#### Overall in the EU these is the demand jobs by occupation: (2)

Demand for green jobs by occupation in the EU (% of total)

Jobs	% green	Jobs	% green
Farming, Fishing and Forestry	26,67	Legal	1,37
Architecture and Engineering	15,86	Business and Financial Operations	1,24
Construction and Extraction	12,07	Computer and Mathematical	1,10
Building and Grounds Cleaning and Maintenance	11,73	Arts, Design, Entertainment, Sports, and Media	0,95
Installation, Maintenance, and Repair Occupations	10,74	Protective Services	0,59
Transportation and Material Moving	6,71	Community and Social Services	0,57
Production Occupations	4,43	Office and Administrative Support	0,55
Life, Physical, and Social Science	3,75	Sales and Related Occupations	0,32
Education, Training, and Library Occupations	2,90	Personal Care and Service Occupations	0,29
Management	2,38	Food Preparation and Serving Related	0,12
Healthcare Practitioners and Technical	2,11	Healthcare Support	0,00
Miscellaneous	1,89	Military Specific	0,00

#### Dark green jobs by occupation, as % of total job demand

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Jobs	% dark green	Jobs	% dark green
Enviromental Engineers	33,66	First-Line Supervisors/Managers of Helpers, Labourers, and Material Movers, Hand	0,98
Engineers, All Other	15,69	Refuse and Recyclable Material Collectors	0,65
Managers, All Other	14,71	Transportation, Storage, and Distribution Managers	0,33
Installation, Maintenance, and Repair Workers, All Other	7,19	Construction Managers	0,33
Miscellaneous	5,56	Engineering Managers	0,33
Environmental Scientists and Specialists, Including Health	4,90	Nuclear Engineers	0,33
Business Operations Specialists, All Other	4,58	Zoologists and Wildlife Biologists	0,33
Hydrologists	1,96	Atmospheric and Space Scientists	0,33
Chief Executives	1,63	First-Line Supervisors/Managers of Construction Trades and Extraction Workers	0,33
Compliance Officers, Except Agriculture, Construction, Health and Safety, and Transportation	1,31	Power Plant Operator	0,33
Civil Engineers	1,31	Water and Liquid Waste Treatment Plant and System Operators	0,33
Geoscientists, Except Hydrologists and Geographers	1,31	Production Workers, All Other	0,33
Environmental Science and Protection Technicians, Including Health	1,31		

Rania Assariotaki, ACG Sustainability Manager, Office of Public Affairs, The American College of Greece, notes, 'Due to the Climate Change implications, sectors such as Sustainable Tourism, Sustainable Agriculture, and Renewable Energy (wind and solar) could play a vital role in mitigating these implications and promoting sustainable development. This works well in combination with Greece's unique geographical position as well as prime weather conditions. However, all areas will demonstrate an increasing demand for sustainability professionals and experts in order to achieve their goals and move into a sustainable business model and remain viable.

#### Waste Management roles in Serbia

ILO began its green jobs activities in Serbia by raising awareness on the employment opportunities offered by e-waste recycling. notably for young unemployed people, and building capacity, in four selected local municipalities in central Serbia. Building on this first experience, the project "Strengthening social cohesion in the labour market through support to disadvantaged and vulnerable groups" was launched in September 2014. It aims to support decent employment opportunities for the Roma population in the City of Belgrade in waste management, as well as strengthen the institutional framework and capacities of relevant local actors in managing recyclable waste. Through dialogue amongst key stakeholders of the waste management sector, the project will propose recommendations for innovative employment solutions for the inclusion of these informal workers. The project seeks to identify and outline all impediments for creation of decent job opportunities for Roma beneficiaries from 5 settlements on the territory of the City of Belgrade, given that waste-related activities represent a significant part of their income generation. (2)

#### Decent work in the Green Economy in Turkey

The "Project Decent Work in the Green Economy", funded by the Flemish Government, aimed at contributing to the creation of green jobs for women and men as a means to poverty reduction and social inclusion through the strengthening of national green economy initiatives. Its objective was to improve the ability of governments and social partners to assess the scope for green jobs and to formulate, monitor and review relevant gender sensitive strategies, policies and programmes.



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**ALEXANDRA PETCU, Entrepreneurship Project Manager, West University of Timisoara, comments about Romanian government investment in Green jobs,** 'Romanian Government has adopted in mid 2018 the Action plan for implementing the National Strategy for Green Jobs 2018-2025. The action plan has three specific objectives: stimulating entrepreneurship and creating green jobs, with a focus on the high competitiveness sectors identified in the 2014-2020 National Competitiveness Strategy and in the 2014-2020 National Research, Development and Innovation Strategy.

Scanning the green jobs offers available, one would notice the 'green' in the job title or job requirements, although formal in fact, such as Health, Safety and Environmental Leader, whose requirement would focus on reporting of current on-site practices, implementing existent regulations and occasional employee training in audited environmental-related matters. In our view, developing skills for the workforce in order to ensure quality employment in competitive sectors that can generate green jobs.

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### **Fastest Growing Green Jobs**

Not only is it 'trendy' to have a green job these days but there is a wide range of jobs in this field. Here are our top picks:

1. URBAN GROWERS "Farm fresh" produce from an unusual source - a rooftop apple orchard planted among the high-rises of downtown, two large sectors of the growing green-jobs movement: food production and green building. Green roof gardens can deliver locally sourced foods that help protect the environment by minimizing the use of pesticides, fossil fuels, and other resources to grow and transport food to market from larger commercial farms. Green roofs can also improve the urban environment by insulating buildings against energy loss, managing storm water, improving air quality, and providing places of recreation.



**10. COMPLIANCE EXPERTS** compliance will flood the industry. Along with it would be the rise of experts who can providing consulting for green laws and compliance standards.

11. BIOFUELS SPECIALISTS

Jobs like turning sunflower oil into clean energy, using fertilizer for power etc, all involve biofuel experts.



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#### Estimates taken from the UNEP/ILO/IOE/ITUC report Scenario for 2030



The largest growing markets are solar are wind for renewable energy but biomass fuels are an area of huge research investment currently, which will increase its market relevance in the future.



**Froso Tzioti, Country Safety, Health & Environment Officer in Nestlé Hellas Greece notes,** 'Environmental Officers with a focus on Plastic, water and clean energy are some of the roles that are required more and more in our industry to cover the needs of companies that move to reduce their environmental footprint, as the growing importance of sustainability is now commonly accepted.'

### MIHAI TOADER-PASTI, Manager & Founder EFdeN, who was also named as one of the top CEE entreprenerus in Adecco Group's enterprenerus list comments on how he seens green jobs in Romania.

Romania has great potential to create many new jobs related to sustainability. In energy, for example, there is a tremendous need of specialists to make the energy transitions fast, efficient and economically. Today, low unemployment rates, Romania has a big problem with high skill and low skill labour.

For example, by unlocking the market for energy prosumers funded by the EU, 33.000 Photo Voltaic Solar kits that will be installed in Romania in the next year will need design, supply, installation, permits, monitoring etc, engaging thousands of people in the process. Last year there were 0 energy prosumers, today are less than 200, and in 2020 there will be 33.000+. This is an incredible achievement and is just one of the examples that will follow clean energy consumption.

My work is focusing on sustainability in the built environment (buildings) and energy (production and consumption). I have seen in the last few years how in Romania the demand for environmental products increased, due to education and climate change associated risks. People are more curious about sustainable solutions for their homes or offices, are more interested in producing or buying green energy and becoming more efficient, especially in terms of energy, but water responsibility is gaining traction as well.

In the last 3 years, energiaTa, a project I co-founded and lead created our country's first energy prosumer community and finally changed the law making energy prosumers a reality, unlocking the market. Now, more than 120 million euros will subsidize acquisition of PV solar kits for more than 33.000 Romanians. With EFdeN we are working with the government to improve the legislation for buildings, to make minimum sustainable characteristics becoming mandatory, more than what the EU is requesting from nZEB in Romania.

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### Top Green Jobs Of The Future So what are the jobs of the future?



10. LANDFILL MINERS

To reduce resource costs rising as demand grows. Suddenly the stuff we have thrown away in the past will increase in value and will be 'mined' from old landfill sites.

**11. IN-VITRO MEAT SCIENTISTS** Using stem cells from a cow's muscle tissue, scientists have develop lab-grown meat. The first burger was cooked and eaten in London but now are all over with world with companies like Impossible foods & Beyond Burger. The benefits of the developing the meat like this include reducing large amounts of greenhouse gas emission contributed by traditional farming methods to produce your favorite hamburger. In doing so, scientist hope to create a happy, healthier you, and a cleaner, greener earth. (7)

### **Energy Sector in Emirates**

In the wake of Expo 2020 in the Middle East, lets take a deep dive into the energy sector in the UAE:

Energy efficiency The UAE's pursuit for energy efficiency in power plants, manufacturing processes, and buildings and houses could lead to producing most promising opportunities for green jobs in the UAE.

The UAE Energy Plan for 2050 targets at reducing 70% of carbon emissions from power generation and improving 40% of overall energy efficiency by 2050. The Dubai Integrated Energy Strategy 2030 aims to reduce electricity and water consumption by 20% by 2020 and 30% by 2030 and has rolled out a series of demand-side management programs. Ras Al Khaimah also targets 30% energy savings by 2040 through diverse energy efficiency measures. Among different areas of energy efficiency, retrofitting of old buildings has been one of the primary targets

Jobs of the Future Environment & Sustainability

in the UAE. Dubai set a target of retrofitting more than 30,000 existing buildings by 2030 and established the Etihad Energy Services Company (Etihad ESCO) as an accreditor and regulator of the energy services companies (ESCOs) which pre-finance energy efficiency equipment on behalf of building owners. Twenty ESCOs are currently approved. A total of 135 projects for retrofitting nearly 2,500 buildings were implemented by the end of 2017. Etihad ESCO forecasts that 70 energy efficiency projects worth AED 400-450 million (USD 109-123 million) are in the pipeline for 2019-2020, which may include Noor Abu Dhabi PV plant, for example.61 Another estimate of jobs in renewable energy comes from a recently published report by IRENA, in which analysis shows that the current renewables jobs total around 49,000 in the UAE and that this number will rise to 81,372 by 2030 (cumulative from 2015). (5)

#### Estimation of UAE jobs (cumulative) in solar energy technologies

PV							
		2013–18	2019–21	-2030			
MW installed		445	2.077	3.287			
	Employment factor (jobs/MW)	Jobs (comulative)					
Manufaturing	6.8	3.026	14.124	22.352			
Construction/Installation	12	5.340	24.924	39.444			
O&M	0.5	223	1.039	1.644			

#### Estimation of UAE jobs (cumulative) in solar energy technologies

PV							
		2013-18	2019–21	-2030			
MW installed		100	300	400			
	Employment factor (jobs/MW)	<b>Jobs</b> (comulative)					
Manufaturing		-	-	-			
Construction/Installation	8	800	2.400	3.200			
O&M	0.6	60	180	240			

The first table shows the cumulative job creation for each period listed in columns. This is because these periods demrcate significant phases of technology deployment and construction announced in the UAE and jobs created in these periods are added up accordingly. To arrive at an estimation of green jobs that allows for closer monitoring and assessment, employment numbers in the energy and other sector are better presented on an annual basis. Hence, the numbers of cumulative jobs are averaged for each period as table below.

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#### Estimation of UAE jobs (per year) in solar energy technologies

PV							
		2013-18	2019–21	-2030			
MW installed		445	2.077	3.287			
	Employment factor (jobs/MW)	<b>Jobs</b> (per year)					
Manufaturing	6.8	504	4.708	2.484			
Construction/Installation	12	890	8.308	4.383			
O&M	0.5	37	346	183			

#### Estimation of UAE jobs (cumulative) in solar energy technologies

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PV							
		2013–18	2019–21	-2030			
MW installed		100	300	400			
	Employment factor (jobs/MW)	<b>Jobs</b> (per year)					
Manufaturing		-	-	-			
Construction/Installation	8	133	800	1.067			
O&M	0.6	60	180	80			

#### Preliminatry estimation of green jobs (per year) in the UAE

Species	2018	2021	2030
Energy			
Renewable energy*	1 120	9634	5712
Energy efficiency	200	850	2400
District cooling	2 190	4000	7670
Waste management			
Collection	7 400	(7400)	(7400)
Recycling	1436	4725	9450
Waste to energy	-	590	758
Wasterwater	3800	(3800)	(3800)
Manufacturing	3000	3050	3108
Buildings & construction	2687	2700	2750
Agriculture	1270	1520	2270
Forestry	-	-	-
Fisheries	223	370	600
Transport	5376	7719	14750
Services			
Financial services	64	70	100
Professional	450	(450)	(450)
Wholesale & retail	400	(400)	(400)
Tourism	6000	6475	7900
Academia	154	(154)	(154)
Public sector	13 750	(13 750)	(13750)
TOTAL	49 520	67 657	83 422
(Nuclear power)		17 000	

Without manufacturing. Construction jobs counted as up to 2019 no longer exist. Construction jobs counted for 2021 and 2030 will also cease after completion. (): Assumed no growth due to lack of projections

#### Some interesting points to note from the table:

- The public sector is currently the largest source of green jobs with 27.8% of the total, followed by waste management at 25.5%, tourism at 12.1%, transport at 10.9% and energy at 7.1%
- By 2021 and onto 2030, a shift occurs and sectors that witness planned investments materialize will begin creating more green jobs. While the public sector remains an important source of green employment, sectors such as renewables, waste management and transport begin to dominate: in 2021 and 2030, respectively, waste management's share rises to 24.4% and 25.7%, energy's to 21.4% and 18.9%, and transport to 11.4% and 17.7%
- The total share of green jobs in the economy as of 2017 is 0.7%



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#### Recommended steps to quantify green jobs in the UAE



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## **Special Thanks**

#### ACADEMIC PARTNERS:

#### Professor Bogdan Sojkin

Poznań University of Economics, Head of the Product Marketing Department of the Institute of Marketing. Member of the Central Commission for degrees and titles - 2nd Economic Sciences Committee. Chairman of the Scientific Council of the European Forum of Scientific and Research Institutions. Member of the Scientific Council of the Polish Scientific Society of Marketing. Editor-in-Chief of the Marketing Institutions] magazine.

#### Affliated Univeristy

**Poznań University of Economics and Business** is a leading business and management university in Poland. In the latest ranking it was placed 2nd among all the Universities of Economics in Poland. It specializes in economics, finance and accounting and commodity science but it can offer students also unique specialisations such as social economics, electronic business and the application of IT technologies in business. Our graduates in 2013 ranking placed 1st in Poznań and 2nd in Poland in terms of their salaries earned within a year after graduation. We enjoy vast internatinal cooperation. The PUEB's Erasmus partners are 139 universities from 28 countries participating in the programme. In the academic year 2013-2014, 236 PUEB students started studies or practical training abroad as part of the Erasmus programme or bilateral agreements. At the same time, 243 foreign students studied at the PUEB as part of the Erasmus programme and bilateral agreements.

A distinguishing characteristic of the PUEB is the extensiveness and durability of relations with business practice, made possible thanks to the activity of the University's Partner Club. Its members – Polish and international companies, as well as reputable business institutions – help the University accomplish its educational mission by being invited to voice their opinions on the strategy and development of the PUEB and co-create the programmes.

#### Professor Robert Szwed

expert in the field of public opinion, identity, and social communication. Fulbright scholarship holder (Indiana University Bloomington, USA), Society of Friends of the Catholic University of Lublin (London School of Economics, England), Erasmus (Cardiff School of Journalism, Media & Cultural Studies). Author and co-author of research grants and many scientific publications. Researcher at the John Paul II Catholic University of Lublin.

#### Professor Jacek Dąbała

#### Catholic University of Lublin, Cardinal Stefan Wyszyński University in Warsaw

Jacek Dąbała is a full professor, writer, screenwriter, and former radio and television journalist. He is the Head of the Department of Media Workshop and Axiology at the Institute of Journalism and Social Communication of the Catholic University of Lublin. As an expert, he constantly comments and analyzes issues related to the media, communication, and social trends. As a writer, he published ten novels (including (i.a. Telemaniak, Pieszczochy Iosu, Złodziej twarzy, Diabelska przypadłość, Ryzykowny pomysł i Największa przyjemność świata) and one drama (Mechanizm). His scientific books are published in Poland and abroad (i.a.. Horizons of Media Communication, Mystery and Suspense in Creative Writing. W kręgu retoryki dziennikarskiej i dramaturgii medialnej, Warsztatowoaksjologiczne mechanizmy tworzenia telewizji, Mystery and Suspense in Creative Writing. Media and journalism: Axiology - workshop - identity, Creative Paths to Television Journalism). He is a member of the Polish Academy of Sciences, the Polish Writers Association, the Polish Film Academy, the Polish Social Communication Society and the Polish Society for Healthcare Communication.

#### Affliated Univeristy

**John Paul II Catholic University of Lublin** established in 1918, is the third oldest functioning university in Poland. The only private college in Poland with the status of a "university". The aim of the university was to be a modern place of higher education which would conduct research in the spirit of harmony between science and faith. The university's public oproduce a new Catholic intelligentsia which would play a leading role in In 2011–12, the university's philosophy program was ranked first in Poland by the Polish Accreditation Agency, distinguished twice, receiving 9 million PLN total in grants that year as a result. Father Idzi Radziszewski founded the university in 1918. Vladimir Lenin allowed the priest to take the library and equipment of the Saint Petersburg Roman Catholic Theological Academy to Poland to launch the university just as Poland regained its independence.







#### Rania Assariotaki, ACG Sustainability Manager, Office of Public Affairs, The American College of Greece

As an academic institution educating the "leaders of tomorrow", following US best practices and as also reflected in the ACG President's 2025 vision, The American College of Greece is gradually developing an ever-growing number of sustainability best practices.

ACG is addressing issues from sustainability focus in academic programs and research, social impact and diversity, to carbon footprint and energy efficiency, as well as further enhancement of transparency and accountability in our daily operations. We support these efforts through awareness-raising campaigns, targeted events, partnerships with relevant Organizations and a number of other initiatives promoting a more sustainable way of living, engaging all the members of the ACG community – students, faculty, staff, business partners and alumni.

In 2017, ACG was awarded the **STARS Silver Rating**, in recognition of its best practices in four categories: **Academics, Operations, Community Engagement & Social Responsibility and Planning & Administration.** ACG is the only academic institution in Greece to have received such a rating by the Association for the Advancement of Sustainability in Higher Education (AASHE), an internationally acclaimed association which also measures most of the US universities.

#### Affiliated University

**The American College of Greece (ACG)** is a private, independent, non-profit educational institution founded in 1875. Throughout its history, the College has been recognized as Greece's premier non-profit College and it is the oldest and largest American educational institution in Europe. Today, ACG has more than 5,700 students and it comprises three divisions: Pierce (secondary education), Deree (undergraduate and graduate programs) and ALBA – the Graduate Business School at The American College of Greece.



Deree – The American College of Greece is accredited by the New England Commission of Higher Education (NECHE) and has a degree validation agreement with the Open University of the United Kingdom (OU).

It offers 25 undergraduate programs in the fields of Business, Liberal Arts and Sciences, and Fine and Performing Arts, and 6 graduate programs in Communication, Psychology, TESOL, and Data Science. Alba Graduate Business School at The American College of Greece, offers Master's degree programs in business, while Pierce – The American College of Greece is one of the country's premier Greek high schools.

Faithful to its mission of providing equal access to high quality education, ACG has a broad financial aid program, offering more than €5 million in scholarships and financial aid for the academic year 2018-2019.

#### Prof Sreejith Balasubramanian Senior Lecturer in Supply Chain Management and Chair of the Research Committee at Middlesex University, Dubai.

Sreejith Balasubramanian is a Senior Lecturer in Supply Chain Management and Chair of the Research Committee at Middlesex University, Dubai. His areas of expertise include supply chain, operations management, sustainability, higher education and knowledge management. He is also an expert data analyst with skills in statistical modeling and forecasting.

Sreejith completed his PhD from Middlesex University Business School, London. He also holds a Master's degree in International Business from University of Wollongong and a Bachelor's degree in Electronics and Communication Engineering from University of Calicut. He has more than 10 years of experience in teaching, research, consultancy and project management. His work has been published in leading international journals and conferences in areas of Supply Chain Management, Sustainability, and Knowledge Management.

#### Dr Krishnadas Nanath , Associate Professor, Computer Engineering and Informatics

**Assistant Campus Programme Coordinator Data Science, School of Science and Technology, Middlesex University Dubai** Dr. Krishnadas Nanath in his previous role at Majid Al Futtaim (MAF) was responsible for leading the efforts of enhancing Analytics and Data Science capabilities as part of School of Analytics & Technology. His teaching experience has been extensively in the areas of Data Science, Cloud Computing and MIS with Middlesex University, IMT and IIM Indore. He has executed several corporate training programs and Data Science consulting assignments with several firms in UAE (PWC, Landmark Group, National Bank of Fujairah, UAE Exchange, and others). He has been the Keynote Speaker at several prestigious forums including Gitex Technology Week IIM Ahmadabad Data Science Summit, Smart Data Conference, Droidcon, Machine Learning Summit, Abu Dhabi Quality Council and several conferences.

#### Dr Belisa Marochi , Senior Lecturer, Head of the Institute of Sustainable Development School of Law and Politics, Middlesex University Dubai

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Dr Belisa Marochi is a Senior Lecturer within the School of Law and Politics, and the Head of the Institute of Sustainable Development at Middlesex University Dubai. She holds a PhD in Social Sciences from Roskilde University (in collaboration with the University of Birmingham), an MA in Political Science from the University of North Carolina, and a BA in Global Studies (Socio-economics and



Politics of the Middle East) from the University of California. She is a member of the International Society for Third Sector Research, and an advocate for gender equality and the implementation of sustainable practice.

Belisa's teaching and learning interests include Globalisation: International Political Economy, Principles and Practices of International Relations, Social Science in a Contemporary Society, and the Introduction of Politics. Her research interests include Stakeholder Engagement, Collaborative Governances, Urban Development, Ethnography, and Emerging Markets.

#### Affiliated university

**Middlesex University Dubai** is the first overseas campus of the internationally renowned Middlesex University in London. The campus, which opened in January 2005, has over 3,500 students from more than 100 nationalities and offers undergraduate and postgraduate programmes in a wide variety of subject areas. Middlesex University is a global university committed to meeting the needs and ambitions of a culturally and internationally diverse range of students, by providing challenging academic programmes underpinned by innovative



research and professional practice. Middlesex University Dubai prepares its students to be professional, skilled individuals fitted for the modern world, committed to lifelong learning and able to contribute to the communities in which they live and work.

As well as having all the advantages associated with being a British university, Dubai campus students can benefit from all the opportunities afforded by a rapidly developing modern city in the heart of the Middle East, while experiencing the diverse nationalities and cultures that make up the population of Dubai.

#### Prof Moez Ben Yedder

Moez Ben Yedder is an Assistant Professor of Human Resource Management in Abu Dhabi University in the Department of the Academic Programs for Military Colleges. He has a large experience in teaching in the areas of Human Resources Management, Organisational Behavior and in Business Administration to both undergraduate and graduate levels.

His current research area includes Corporate Social Responsibility, Job Quality, International HRM and Family Business with a focus on research involving interdisciplinary teams and outcomes.

He has published several articles in local peer-reviewed journals including Développement Durable et Territoire (France), La Revue Multidisciplinaire sur l'Emploi le Syndicalisme et le Travail (Canada), Management et Avenir (France) and Gérer et Comprendre (France) and in international Scopus Based Journals like, Human Systems Management and Journal of Retailing and Consumer Services He has also participated in several international conferences organized by top global universities and business schools such ESSEC Business School (France), University Carlos III (Spain), Pennsylvania University and Georgetown University (USA) and Sydney University of Technology (Australia).

Dr. Moez has a large consultancy and industrial training experience. He has participated in many interventions for both private and public organizations in Tunisia and in the UAE. He has also published professional contribution in outlets such as Maghreb (Tunisia), Questions de Management (France), JCSC Journal (UAE).

#### Affiliated University

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**Abu Dhabi University** is a private, multi-campus University committed to meeting the education, skills and knowledge needs in the United Arab Emirates and neighboring countries through qualifications and standards that are respected across the world.



Adecco

Although young, the University is recognized as a world-class institution committed to excellence in teaching, student experience, research and corporate education. We are regularly featured in the Quacquarelli Symonds (QS) rankings as among the best higher education institutions in the region. We hold prestigious international accreditations for the institution as a whole, for particular fields of provision and for specific programs. We were the first private higher education institution in the UAE and the GCC region to earn international accreditations from the California Western Association of Schools and Colleges (WASC). ADU's College of Business holds international accreditations from the Association to Advance Collegiate Schools of Business (AACSB) and the prestigious EFMD Quality Improvement System (EQUIS). In addition, its College of Engineering has earned accreditation from the world-renowned Engineering Accreditation Commission (EAC), the Computing Accreditation Commission (CAC) of the Accreditation Board for Engineering and Technology (ABET), and the Royal Institute of British Architects (RIBA). The College of Health Sciences is currently in process of attaining accreditation from the Agency for Public Health Education Accreditation (APHEA).

Established in 2003, Abu Dhabi University has over 7,500 students across its four campuses and sponsored programs. Structured into Colleges of Arts and Sciences, Business, Engineering, Law and Health Sciences, we offer undergraduate and graduate programs across arts, law, education, business and management, engineering and sciences, including to Etihad pilots, trainees and personnel of the UAE military. Alongside the well-established campuses in Abu Dhabi and Al Ain, we have launched a new campus in Dubai Knowledge Park and recently opened a teaching facility in the Al Dhafra Region of the Abu Dhabi Emirate.

#### Alexandra Petcu, Entrepreneurship Project Manager, West University of Timisoara

Alexandra Petcu is the Project Manager of StartActiv Vest SUP Timisoara. The project involves the roll-out of an integrated awareness, promotional, consultancy, support and other related services with the aim of promoting and developing entrepreneurial & managerial culture for future entrepreneurs. The purpose of all these actions is to found new (non-agrarian) companies as to enhance economic development and create new jobs in the West Region of Romania. To date, 73 start-ups have been created with financial support offered within this project, generating nearly 150 new workplaces, in areas such as IT&C, education, online commerce, authentic and sustainable tourism agencies or eco courier delivery.

#### Affiliated University

**The West University of Timişoara** (Romanian: Universitatea de Vest din Timişoara; abbreviated UVT) is a university located in Timişoara, Romania. Established in 1962, it is organized in 11 faculties. Classified as a research and education university by the Ministry of Education, it is one of the five members of the Universitaria Consortium (the group of elite Romanian universities). The West University is an institution of the National System of Research, Development and Innovation in its capacity as an accredited higher education institution.

#### PARTNER UNIVERSITIES

#### Adam Mickiewicz University in Poznań (UAM)

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The university was ceremonially opened on May 7, 1919 (the 400th anniversary of the foundation of Poznań's Lubrański Academy). For the first 20 years it educated students in law, economy, medicine, humanities, mathematics, natural sciences, agriculture and forestry.

In 1920 famous sociologist Florian Znaniecki founded the first Polish department of sociology at the university, one of the first such departments in Europe. In the same period of the university's history, botanist Józef Paczoski founded the world's first institute of phytosociology. The university has been frequently listed as a top three university in the country.

**The Bucharest University of Economic Studies** (Romanian: Academia de Studii Economice din București, abbreviated ASE) is a public university in Bucharest, Romania. Founded in 1913, it is now the leader of Romanian higher education institutions in the field of Economic Sciences and Public Administration. The Bucharest University of Economic Studies is classified as an intensive research university by the Romanian Ministry of Education, hosting 23 research centers acknowledged and endorsed by the National Council for Scientific Research in Higher Education.

The Bucharest University of Economic Studies has over 22,000 students (undergraduate and graduate

levels) in twelve faculties, which organize study programs and scientific research in the fields of Economic Sciences, Administrative Sciences, Sociology and Humanities. Students are offered the opportunity to pursue a full academic path by attending study programs in Romanian, English, French or German, as follows: 24 Bachelor's programs, more than 80 Master's programs, Doctoral studies in 10 fields, and more than 145 postgraduate continuing education programs. In addition, ASE organizes a preparatory year of Romanian language for foreign citizens, continuing training programs, teacher training programs, postgraduate programs, as well as MBA and EMBA study programs.

At regional level, ASE undertakes the complex role of Central and South-Eastern European regional hub in education and advanced scientific research. At international level, ASE is ranked 151-200 in Top Shanghai 2017 in the field of Economics - the best position held by a Romanian university in Shanghai Ranking's Global Ranking of Academic Subjects 2017.

Moreover, ASE is the Romanian university with the best employer reputation, according to QS World University Rankings 2018, which is confirmed by ASE's own alumni surveys, according to which 81.35% of graduates find employment within 3 months from finishing their studies.









**The University of Ljubljana** (Slovenian Univerza v Ljubljani , Latin Universitas Labacensis) in Ljubljana (Ljubljana) is the oldest, largest and internationally best-rated university in Slovenia. It is ranked among the top 500 or top three percent of the world's top universities by the Shanghai ranking. With over 63,000 enrolled students and doctoral students, it is one of the largest universities in Europe.



University of Ljubljana

The University of Ljubljana was founded in 1919 in the center of Ljubljana. As early as the 17th century, humanist and theological academies existed in Ljubljana, and in 1810 under French rule a first university was founded, but it had only a short existence. Today it employs about 3,500 professors and scientific assistants as well as nearly 900 technical and administrative staff. Until the founding of the universities in Maribor (University of Maribor) (1978) and in Koper (University of Primorska) (2001), she remained for almost 50 years the only university in Slovenia The role of the University Library is exercised by the Slovenian National and University Library.







### **Commercial partners**

#### Nestle Greece

As the world's largest food and beverage company we are driven by a simple aim: enhancing quality of life and contributing to a healthier future. To deliver on this, we serve with passion, with a spirit of excellence, offering products and services for all stages of life, every moment of the day, helping people care for themselves and their families. Our culture is based on our values rooted in respect: respect for ourselves, respect for others, respect for diversity and respect for the future. We can trace our origin back to 1866, when the first European condensed milk factory was opened in Cham, Switzerland, by the Anglo-Swiss Condensed Milk Company. One year later, Henri Nestlé, a trained pharmacist, launched one of the world's first prepared infant cereals 'Farine lactée' in Vevey, Switzerland. Today, we employ around 328,000 people and have factories or operations in almost every country in the world. With our headquarters still based in the Swiss town of Vevey, we had sales of CHF 89.5 billion in 2016. Our portfolio covers almost every food and beverage category –offering products and services for all stages of life, every moment of the day, helping people care for themselves and their families.

#### EFdeN ((Top CEE Entrepreneur winner)

Established in 2013, EFdeN has given more than 550 students from local universities a platform to put their ideas into practice and work together towards building award-winning smart, sustainable homes and other green products. Moreover, the NGO has developed educational programs on sustainable practices for companies, solar charging stations for electric vehicles, 'solar trees' to provide green and free electricity, and a green university campus, among others. Over the past two years, EFdeN has also successfully implemented energiaTa – an exciting project designed to make energy production a reality for Romanian households.

#### 24 Saatte İş (Top CEE Entrepreneur winner)

New generation human resources application using AI to find jobs and employees in retail, catering and many more sectors in under 24 hours.

## Good Food, Good Life



#### Mihai Toader-Pasti

Mihai Toader-Pasti is the Co-founder & CEO of the educational & research project EFdeN. In the last 7 years, the Romanian team made of students architects, engineers, communicators and managers and motivated students designed and built two of the world's most sustainable homes, winning +50 national and international awards, including in the most prestigious global competition for solar homes - Solar Decathlon. Their mission is to create a more sustainable world throught education and innovation and accelerate the transition towards a clean economy. They already created a solar charging station for electric vehicles and other sustainable products and are now preparing to create a pilot project for a sustainable city.







### What is CEE&MENA... geographically speaking?



BULGARIA CROATIA CZECH REPUBLIC GREECE HUNGARY

Poland Qatar Romania Serbia

SLOVAKIA SLOVENIA TUNISIA TURKEY UAE

### Key figures

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