



Mineral and Energy Economy Research Institute Polish Academy of Sciences

Study on Polish activities and funding opportunities of furthering education programs for unemployed academics in green jobs

Presented by Instytut Gospodarki Surowcami Mineralnymi i Energią Polskiej Akademii Nauk, Krakow, Poland

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Study on Polish activities and funding opportunities of furthering education programs for unemployed academics in green jobs

The study was conducted under Output 1 "Study to national activities and funding opportunities to furthering education programs for unemployed academics in green job".

1. Green jobs market in Poland

In recent years, the European Union has emphasized the so called "green growth". It is the result of commitments taken by EU Member States in the "Europe 2020" development strategy for reducing greenhouse gas emissions by 20%, achieving energy efficiency increases by 20% and increasing the share of renewable energy by 20% in the perspective of 2020. It creates opportunities for job creation, and in particular the so-called green jobs (Europe 2020). Increasing the employment in environmentally friendly sectors is key to socio-economic governance. Green jobs affect resource and energy savings and their efficient use to reduce the climate change and environmental pollution. Green jobs are created in the sector of goods and services related to environmental protection.

The definition of green jobs in Poland has not been sanctioned but the fact is that they can emerge in every sector of the economy, provided that employees are directly or indirectly involved in the improvement of the environment in the concerned area and will endeavour to eliminate harmful effects, short- or long-term on the environment (*Zazielenienie lokalnych rynków pracy w Polsce, 2010*).

Lack of definition and supporting institutions makes it difficult to precisely define the actual and projected number of green jobs and to plan appropriate support measures. Creating green jobs have to require adequate support at all levels of management and policy decisions, both at international, EU and national levels (Szyja, 2015).

1.1. Searched Job portals

As a part of the Output 1 research, a few job portals were searched. The largest one is pracuj.pl but in polish labour market was founded only one portal (regular

updated), specialised in green Jobs – portal www.teraz-srodowisko.pl. Portal is a B2B journal for specialists and employees from environment protection sector and all who interest in this subject. The total of 174 offers in the green topics were found in this portal between January and May 2017.

Sector	Job offers	Number of offers		
	Revitalization specialist (1), Environmental management and management specialist (2), Investment manager (1),			
Construction and architecture	Power Specialist (2), Infrastructure maintenance specialist (1),	9		
	Construction manager (1), Coordinator / Manager of sanitary works (1)			
	Sales specialist (1),			
Education and communication	Project manager (1), Market Research Specialist (1)	3		
	Energy auditor (4),			
	Technical specialist (3),			
	Technical Analyst (2),			
	Energy Efficiency Manager/Auditor (2),			
	Energy Customer Advisor (3),			
Energy	Investment Manager (2),	26		
Ellergy	RES Commercial adviser (3),	20		
	RES Specialist (2),			
	Process Technician (1),			
	Product Manager (2),			
	Key project Management Specialist (1)			
	Construction engineer (1)			
	Environmental Specialist (2),			
Soil & ground	Inspector (1),	4		
	Laboratory analysts (1)			
	Environment Inspector (2),			
	Recycling Sales Representative (1),	7		
	OHS Specialist (3),	7		
	Environmental Specialist (3),			
Waste management	Sales Representative (2),	- 17		
	Environmental advocate (1)	1		
	Specialist in Waste Management (3)	1		
	Composting manager (1)	1		
	Environmental Specialist (3),			
Spatial planning	Laboratory Specialist (1),	6		
-Paria Plannig	Spatial development specialist (2)	1		
Air and climate	Environmental Monitoring Specialist (2),	6		

The green jobs were categorized into following sectors:

	TOTAL	174		
	Laboratory analysts (6),			
	Laboratory specialist (6),			
Environmental management	Environmental Inspector (8),	44		
	Environmental Specialist (9),	-		
	Photovoltaic consultant (2),			
	Specialist in Renewable Energy (2),	-		
	Employee for Health and Safety (1),			
Business management	Product Manager (3),	17		
	Technical sales advisor (4),			
	Regional manager (2),			
	Specialist in Sales Support (4),			
Transport	Key Project Management Specialist (1)	1		
	Business management (3)			
waldi	Sales Representative (4),			
Water	Project Manager (4),	16		
	Environmental Specialist (5),			
	Inspector (2)			
Natural environment, biodiversity	Laboratory Assistant (2),	9		
	Specialist (5),			
	Laboratory analyst (1)	1		
Risk (Inspector for the environment)	Specialist in Nuclear Safety Department (1),	4		
	Environmental Specialist (2),			
กษาเงินแนเช	Soil lecturer (1)			
Agriculture	Inspector (3),	4		
	Environmental Protection and Chemicals (4)			
	Employee for Health and Safety (3),	-		
	Production Manager (3),			
Industry and engineering	Process Engineer (5),	20		
	Laboratory analyst (3),			
	Specialist in the laboratory (2),			
	Electrical Installation Designer / Electrician (2)			
	Laboratory specialist (1)			
	Manager of Projects in the Climate and Energy section (1),			

The percentage of offers by the category has been presented on Figure 1. Among all green job offers the most numerous were: in the environmental management (24%) energy sector (14%), in industry and engineering sector (11%). At present, the

greatest demand on the market is on: environmental specialists (9 offers), environmental inspector (8 offers) and energy auditors (6 offers).



Fig. 1. The percentage of offers by the category

Preliminary conclusions

1. In Poland, develop of green job sector is slower than for e.g. in Germany.

In Germany, thanks to the implementation of a series activation and support measures, about 380,000 green jobs have already been generated. In Poland this type of statistics has not been started yet, and the modernization of the energy sector is proceeding very slowly (lack of support for pro-consumer and civic energy) [*Biuletyn Mazowieckiego Obserwatorium Rynku Pracy, March 2015*].

- 2. Lack of systematic analysis of the sectors and industries (indicators -> identify and remove barriers)
- 3. No official definition of "green jobs", "green economy", "green sectors in the economy" in Poland.
- 4. In Poland exist a potential in green jobs market

References:

Europe 2020, European Commission, 2010 http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:PL:PDF

Zazielenienie lokalnych rynków pracy – wykorzystanie doświadczeń Unii Europejskiej w Polsce, Warszawa 2010

Szyja P., 2015 – Zielona gospodarka w Polsce stan obecny i perspektywy. Nierówności Społeczne a Wzrost Gospodarczy, nr 41 (1/2015), ISSN 1898-5084

2. Adult education in Poland

This chapter is based on the publication *"Uczymy się przez całe życie. Przewodnik po kształceniu ustawicznym." Nowicki J. & Wiśniewski P. (in polish only) and EU reports available* on the European Commission website *"Education and Training Monitor 2016" and Eurostat.*

Adult education in Poland is often refereed as "Continuing Education" defined as 'education in schools for adults as well as the development of general knowledge, vocational skills formation and ability development in out-of-school forms by persons who have graduated from compulsory education'.

Adult education in Poland include following terms:

- Adult education (AE) associated with adult education and training (AET). The scope of adult education and training exceeds considerably the scope of school and higher education and traditional training courses. AET is also provided as on-the-job practical training or as organized activities of communities.
- Continuing education (CE), defined only in the School Education Act. CE is a small part of AET, covering, under the Act, education in schools for adults (where the number of learners has been decreasing) and four types of adult training organized by institutions specified in the regulations on school education

In Poland, adult education and training is potentially targeted at adult population (over the age of 18) of 31.5 million people (Central Statistical Office, 2014). The group providing the European point of reference are those aged 25-64 involved in AET in the period of four weeks preceding an AET survey – there are 22.3 million people in this age bracket in Poland.

According to Eurostat, the participation of adult Poles in AET has remained below the EU-28 average for many years now. Adult education and training is the most diversified area of education in Poland; this is due not only to the diversity of its target groups, their age as well as social and professional status, but also to the wide range of AET providers.

Continuing education in Poland on the one hand is embedded in the **education system**, that is:

- schools for adults,
- lifelong learning institutions,

- facilities for practical training,
- centres for further training,
- higher education institutions,

On the other hand, it is conditioned by the **free market** and run by:

- centres for training, further training and improvement of personnel,
- natural persons conducting business activity,
- associations, foundations, companies, cooperatives and others (functioning on the basis of separate Recipes).

The characteristic feature of the Polish system of lifelong learning is its identification with the education of adults, which in our country is characterized by dispersion and is carried out by the dynamically developing market of training services and organized training system of the unemployed, including the academic education and self-education.

The creation and development of lifelong learning policy and the implementation of lifelong learning in Poland are responsible for: Ministry Science and Higher Education (more ww.nauka.gov.pl), Ministry of National Education (More on www.men.gov.pl) and the Ministry of Labor and Social Policy (more At www.mpips.gov.pl).

The educational system for adults in Poland is regulated by following legal acts:

- The Polish Constitution of 2 April 1997 (Journal of Laws No. 78, item. 483, as amended. d.);
- Act on the Education System of 7 September 1991 (Journal of Laws of 2004. No. 256, item. 2572, as amended. D.);
- Act on employment promotion and labor market institutions of 20 April 2004 (Journal of Laws of 2015. Pos. 149, as amended. D.);
- Labour Code Act of 26 June 1974 year (Journal of Laws of 2014. Item. 1502, as amended. D.);
- Act on tax on goods and services of 11 March 2004 (Journal of Laws of 2011. No. 177, item. 1054, as amended. D., Art. 43 paragraph. 1 point 26-29), and its acts regulations.

2.1. Strategic and programme documents

To guide the development of lifelong learning in Poland following strategies have been developed:

- 1. National Development Strategy 2007-2015
 - The assumptions are to be realized among others: by increasing the availability and enrichment of school curricula and educational institutions, developing professional qualifications in the workplace, implementing a nationwide information system on lifelong learning opportunities, and encouraging investment in education.
- Operational Programme "Knowledge, Education and Development" (PO WER)

Scope covers activities in the fields of employment, social inclusion, education, higher education, health, good governance. In addition, support social innovation and transnational cooperation in areas and initiatives for employment of young people.

- The perspective of lifelong learning Sets out the goals and directions for action in lifelong learning in Poland by 2020, promoting a new approach to education, equal treatment of all stages of life and acknowledging learning outcomes in qualification systems.
- 4. National Qualification Network

Document describes the qualifications obtainable in Poland and describes the nature of the hierarchy of levels of qualifications. The Polish Qualifications Framework ensures consistency and completeness of learning outcomes, which are described in 3 categories: knowledge, skills and social competence.

2.2. Market of training services in Poland

The dynamics of the labor market increases the demand for lifelong learning and gaining new qualifications. In nowadays adult education also is centred on the labour market. Training activities in Poland can be run by non-public institutions in three ways:

1. In the form of economic activity under the Freedom of Economic Activity Act,

Educational activities not including a school, institution or school team may be undertaken in accordance with the provisions of the Act of 2 July 2004 on Freedom of Economic Activity (Journal of Laws of 2005, item 584).

According to this law, training services are included in the business. In formal terms, they do not differ from other service activities. Therefore, the training activity does not require any specific conditions or authorization, concession, consent or notification. It is no need to show the professional qualifications of the trainers and whether or not they have the appropriate premises. It means that any person interested in conducting such activities may exercise it without obstruction.

- 2. By non-governmental organizations conducting public benefit activities, It is a socially useful activity, usually conducted by non-governmental organizations in the field of public tasks specified in the Act of 24 April 2003. On Public Benefit and Volunteer Work (Journal of Laws of 2014. Pos. 1118).
- 3. In the form of a school or non-public institution under the Education System Act.

Schools and non-public institutions may be established by legal/natural persons after obtaining an entry in the records maintained by a local government unit responsible for running the appropriate type of public schools and institutions. Pedagogical supervision of schools and non-public institutions is performed by the appropriate curators of education.

Training may also be provided by higher education institutions, according to the Law on Higher Education (Law of 27 July 2005 on higher education - Journal of Laws of 2012, item 572, as amended).

Accreditation - Institutions providing continuing education in out-of-school forms and teacher development centres can obtain accreditation. Taking a course run by an accredited institution increases the changes of employment and also gives the opportunity to credit this form of education when undertaking adult education.

2.3. Form of learning

Adult education and training programmes (Table 2.3.1). School settings are public and non-public schools for adults, whereas non-school settings refer to public continuing education centres, practical training centres, as well as further- and inservice training centres. There is also a system working to train the unemployed and job-seekers.

The educational system for adults in Poland has traditionally relied almost exclusively on formal in-school education but in recent years out-of-school opportunities for learning and training have increased.

Formal (in school)	Non-formal (out-of-school)
Schools (secondary schools, basic vocational schools, general upper-secondary schools)	Public Continuing Education Centres (CESs) Practical Training Centres (PTCs), Further and in-service training centres: vocational qualification courses, occupational skills courses, courses of general competencies, other courses allowing acquisition and development of knowledge, skills and qualifications
Public and non-public higher education institutions (HEIs) 1st, 2nd & 3rd cycle programmes; postgraduate programmes, open university courses (e-learning), conferences, workshops &	Non-public institutions for continuing education and practical training administered by associations and individuals People's universities
seminars	Employers: courses, on-the-job training, job shadowing, rotation, replacement, learning clubs, supervised individual learning, fairs, conferences, coaching's, mentoring, cooperation with equipment & software suppliers Employers' organisations and trade unions
	Training institutions , including those registered in the Register of Training

Table. 2.3.1. Forms of education in Poland

Institutions (RIS)
Public employment services : support tools, including training, practical placements, vocational training for adults
Researchinstitutions,researchfoundationsandPASunits:postgraduateprogrammesanddoctoral
programmes, courses, conferences, seminars, workshops
Institutions specialised in specific areas of study

School education

Schools and institutions educating adults can be established and run by:

- a unit of local self-government,
- a legal person,
- a natural person,
- The minister responsible for the profile of the school or institution.

Out-of-school education

To obtain and supplement general knowledge, skills and professional qualifications in lifelong learning institutions (CEC), practical training centres (PTC) and centres for further training and further training (FITC) (Table 2.3.2). Continuing education in extracurricular forms can be either permanent or extramural.

Type of institution	Activities	Forms of continuing education for adults
Continuing education centres (CEC)	 vocational skill courses, general competences courses and other courses; provide continuing education in schools for adults within a CEC; 	Vocational qualification courses and vocational skill courses; general competences courses; and other courses provided in schools for adults within a CEC
Practical training centres (PTC)	 offer vocational qualification courses and vocational skill courses, general competences 	Vocational qualification courses and vocational skill courses, general competences courses and other courses

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Table. 2.3.2.		providing	continuing	Euucation	for adults in Poland

		1				
	 schools; organize supplementary courses for juvenile workers; 					
	cooperate with employers, labour offices and other vocational education providers;					
	• cooperate with in-service teacher training centres to support vocational education and training teachers.					
	368 FITCs (source: SIO, 30 Sept. 2015):					
Further and in- service training centres (FITC)	 offer vocational qualification courses and vocational skill courses, general competences courses and other courses; may additionally organise theoretical training sessions for juvenile workers; cooperate with employers, labour offices and other vocational education providers. 	Vocational qualification courses and vocational skill courses, general competences courses and other courses				
Vocational and continuing education centres(VCEC)	 New type of a continuing education provider established by the amendment to the School Education Act of 19 August 2011. VCECs are to combine activities of vocational schools and continuing education providers. They consist of at least one of the above-mentioned continuing education institutions and at least one school providing vocational education. 92 CECs combined with schools (source: SIO, 30 Sept. 2015): are authorised to provide all services as for institutions included in an VCEC, and: provide career guidance and information; cooperate with employers and their organizations. 	Vocational qualification courses and vocational skill courses, general competences courses and other courses provided in schools for adults within a CEC				

Source:

https://webgate.ec.europa.eu/fpfis/mwikis/eurydice/index.php/Poland:Main_Providers#Public_institutions_providin g_continuing_education_for_adults

Vocational qualification courses may be provided by schools as well as public and non-public educational institutions. They have extended the range of institutions involved in education and training activities.

According to the School Education Information System (SIO), there are **2 142 nonpublic continuing education and practical training centres**, including **8** which operate together with schools as an educational complex.

2.4. Opportunities to improve qualifications by the unemployed in Poland *2.4.1. Trainings*

Labour market services in the organization of training for the unemployed and jobseekers are implemented by the powiat labour offices in cooperation with national employers, training institutions, examiners, postgraduate organizers and social dialogue institutions.

Organized to improve the professional and other qualifications of the unemployed and jobseekers, increasing their chances of obtaining o job:

- lack of professional qualifications,
- need to change or supplement qualifications,
- loss of ability to work in a profession so far,
- lack of active job search skills.

Training organized by the powiat labour offices takes place in the form of a course, carried out according to the syllabus, with an average of not less than 25 clock hours/ week, up to 6 months. People are entitled to a scholarship.

Training costs are paid in the powiat labour offices in three forms: individual training, group training and under the training voucher for persons up to 30 years of age.

2.4.2. Training loan

For unemployed or job seekers to enable them to take up employment/maintenance of employment, getting other gainful employment or business that require special qualifications. A loan to finance the cost of training to the amount of 400% of the average salary.

2.4.3. Postgraduate studies

According to the Act of 27 July 2005, the Law on Higher Education, non-degree postgraduate programmes are a form of education provided by HEIs and intended for applicants who have completed at least a first-cycle programme. Students are awarded a (non-degree) postgraduate qualification upon completion of a programme which lasts no shorter than 2 semesters, corresponding to at least 60 ECTS.

In the academic year 2014/2015, there were 434 HEIs in Poland, including 302 with a non-public status (Central Statistical Office, GUS). Any HEI may provide non-degree postgraduate programmes in the academic areas corresponding to at least one field of study in which it offers degree programmes. HEIs can also provide non-degree postgraduate programmes in other areas upon the consent of the minister responsible for higher education and consultation with the General Council for Science and Higher Education (*Rada Główna Nauki i Szkolnictwa Wyższego*).

In 2015, 151 555 students, with female students representing 72%, were following non-degree postgraduate programmes.

2.4.4. Internship and internship voucher

Acquiring by unemployed practical skills to perform work by carrying tasks at the workplace, without entering into an employment relationship with the employer. The unemployed may be sent to work for a period of 3 to 6 months. Unemployed persons under the age of 30 can apply for an internship of no more than 12 months.

Another possibility to finance an internship for the unemployed is the so-called internship voucher. Voucher is available to unemployed persons up to 30 years of age and provides a guarantee of placement.

2.4.5. Professional preparation of adults

A form of practical adult education or adult apprenticeship, pursued without entering into an employment relationship with an employer. The program includes the acquisition of practical skills and theoretical knowledge, which ends with an examination.

Two forms: 1. Practical preparation - enabling accession to the qualification examination in the profession or journeyman's exam (practical vocational training can last from 6 to 12 months; and 2. learning to work - acquisition of selected professional qualifications or skills necessary for the performance of specific occupational tasks; qualification specific to occupational classification and specializations for the labour market needs (apprenticeship may last from 3 to 6 months).

An unemployed person may be referred by the county employment office For an internship or preparation of occupations at the workplace and a notified application Out of the office in which he / she desires to qualify And at the place where the vocational training or traineeship will take place.

2.4.6. Funding for exam fees and obtaining licenses

If an unemployed person has already acquired the skills to improve his qualifications, he may also be expected to cover the cost of obtaining evidence of their acquisition from public funds.

The unemployed may be financed from the Labour Fund, up to the amount of the average wage, the costs of examinations enabling them to obtain certificates, diplomas, attestations, specific professional or vocational qualifications and the costs of obtaining the necessary licenses to perform the profession.

2.4.7. Scholarship to continue learning

Unemployed people without professional qualifications who, in the period of 12 months from the date of their registration at the powiat labour office, undertake further education at an upper secondary school for adults, who are public or non-public schools with the rights of a public school, or a higher education institution where they study in the form of extramural studies, may Apply for a scholarship of 100% of the unemployment benefit amount.

A scholarship for continuing education is paid for 12 months from the date of commencement of study, but it is possible to extend the duration of the scholarship for completion of studies in accordance with the curriculum. The decision is made by the county employment office. In the event of a break, no scholarship is available

2.5. European Union funds

Accession to the European Union enabled Poland to benefit from the European financial support among others from the Structural Funds, including from the European Social Fund.

Structural funds:

1. **European Social Fund** (European Structural Funds)

 National Operating Programme for years 2014-2020 implemented 6 operational programmes including "Knowledge, Education and Development" (POWER)

Range: activities in the areas of employment, social inclusion, education, higher education, health and good governance. In addition, it is intended to cover actions aimed at supporting social innovation and transnational co-operation. Areas and initiatives for the employment of young people.

As a part of the qualification, thanks PO WER will be possible to implement:

- Activities in the organization of training,
- supplementation of competences or qualifications to take up employment in another sector,
- continuing education for young people diagnosed with the need to complete formal education, or the need to have adequate,
- comprehensive and individual job placement in the field of career choice in accordance with qualification and competencies supported by a person or aids in the planning of career development of a young person

Target group – public and non-public employment services, local government units and their organizational units, Volunteer Labour Corps, socio-economic partners, non-governmental organizations, institutions that will develop prevention programs (such as universities, clinical hospitals, Research institutes), labour market institutions, Polish Agency for Enterprise Development.

The recipients - young people, including the disabled, aged 15-29 without work, who do not participate in education or training, employers and their employees, public administration employees, psychological and pedagogical counselling centres, people covered by prophylactic programs.

The PO WER program includes 5 Priorities, "Axis": Axis I Young people on the labour market Axis II Effective public policies for the labour market, economy and education.

3. **Regional operational programs (RPO)** - implemented at the level of the voivodship for years 2014-2020. RPO are financed from European Regional Development Fund and European Social Found.

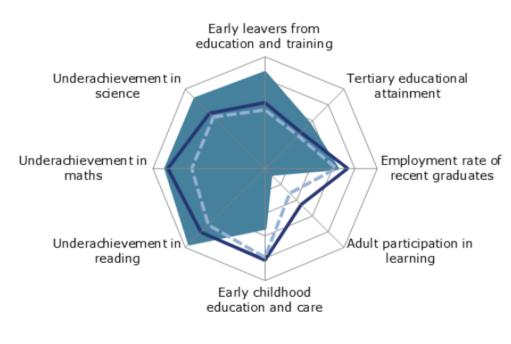
2.6. Adult education - statistics

According to data presented by European Commission (Educational and Training Monitor 2016) Poland has very low level of adult participation in lifelong learning and poor skills levels among adults (Table 2.6.1 and Figure 2.6.1.).

Table. 2.6.1. Indicators and Benchmarks

			Poland		EU average			
			2012 2015		2012	2015		
ET 2020 benchmarks								
Early leavers from education and training (age 18-24)	Total		5.7%	5.3%	12.7%	11.0%		
Tertiary educational attainment (age 30-34)	Total		39.1%	43.4%	36.0%	38.7%		
Early childhood education and care (E0 (from age 4 to starting age of compuls			78.4% ¹¹	87.1% ¹⁴	93.2% ¹¹	94.3% ¹⁴		
	Reading		10.6%	:	17.8%	:		
Proportion of 15 year-olds with underachievement in:	Maths		14.4%		22.1%	:		
underachievement in.	Science		9.0%		16.6%	:		
Employment rate of recent graduates by educational attainment (age 20-34 having left education 1-3 years before reference year)	ISCED 3-8 (total)		ISCED 3-8 (total)		73.3%	77.4%	75.9%	76.9%
Adult participation in lifelong learning (age 25-64)	ISCED 0-8 (total)		4.5%	3.5%	9.2%	10.7%		
Other contextual indicators								
	Public expenditure on education as a percentage of GDP		5.4%	5.3% ¹⁴	5.0%	4.9% ^{14,p}		
Education investment	Expenditure on public	ISCED 1-2	€4.871	€5.094 ¹³	:	: 13		
	and private institutions	ISCED 3-4	€4.453	€4.460 ¹³	:	: 13		
	per student in € PPS	ISCED 5-8	€6.442	€6.580 ¹³	:	: 13		
Early leavers from education and	Native-born		5.7%	5.3%	11.6%	10.1%		
training (age 18-24)	Foreign-born		1	1	24.9%	19.0%		
Tertiary educational attainment	Native-born		39.1%	43.3%	36.7%	39.4%		
(age 30-34)	Foreign-born			63.2% ^u	33.8%	36.4%		
Employment rate of recent graduates by educational attainment			62.7%	68.5%	69.7%	70.8%		
(age 20-34 having left education 1-3 years before reference year)	ISCED 5-8		81.5%	85.1%	81.5%	81.9%		
Learning mobility	Inbound graduates mobility (bachelor)		0.6% 13	0.7% 14	5.5% ¹³	5.9% ¹⁴		
Learning mobility	Inbound graduates mob	1.3% 13	1.5% 14	13.6% 13	13.9% 14			

Sources: Eurostat (see section 9 for more details); OECD (PISA). Notes: data refer to weighted EU averages, covering different numbers of Member States depending on the source; b = break in time series, d = definition differs, p = provisional, u = low reliability, 11 = 2011, 13 = 2013, 14 = 2014. Further information can be found in the relevant section of Volume 1 (ec.europa.eu/education/monitor).



Poland DEU target LIEU average

Fig. 2.6.1. Position in relation to highest (outer ring) and lowest performers (centre) (*Monitoring...2016*)

2.6.1 Investing in education and training

Government expenditures on education in Poland are close to the EU average (5.3% compared with the EU average of 5% in 2013). The proportion of spending allocated to education is above the EU average (12.5% compared with 10.3%).

New measures, co-financed by the European Social Fund (European Structural and Investment Founds (2014-2020 National Operating Programme) the "Knowledge, Education and Development" (Wiedza-Edukacja-Rozwój **PO WER**) and from the **16 regional** operational programmes to tackle the issue of low adult participation in lifelong learning.

From 2014 (according to the Act on the Promotion of Employment and Labour Market Institutions *(Ustawa o promocji zatrudnienia i instytucjach rynku pracy)* from 2013) companies have been able to co-finance training for their employees using the National Training Fund (Krajowy Fundusz Szkoleniowy).

Moreover, the recent VET (Vocational Education and Training) reform introduced the possibility of validating full qualifications acquired outside of the formal education system.

2.7. Institutions providing training for the unemployed and job seekers *2.7.1. Registry of training institutions*

Register of Training Institutions (Rejestr Instytucji Szkoleniowych – RIS), operating under the Act of 20 April 2014 on the Promotion of Employment and Labour Market Institutions. It is the biggest directory of institutions which provide training for the unemployed and job seekers in Poland. Institutions interested to provide such training in cooperation with the public employment services (as a commissioned and publicly-funded activity) are required to be registered in the RIS database in the Regional Labour Office.

2.7.2. Higher education

Non-degree postgraduate programmes, as another form of continuing education, are provided by public and non-public higher education institutions (HEIs), research institutions and institutes of the Polish Academy of Sciences. The Law on Higher Education does not refer to continuing education, but in view of the so-called third mission of higher education, this type of programmes can be considered part of continuing education.

2.7.3. Students in non-degree postgraduate programmes

According to the Act of 27 July 2005, the Law on Higher Education, non-degree postgraduate programmes are a form of education provided by HEIs and intended for applicants who have completed at least a first-cycle programme. Students are

awarded a (non-degree) postgraduate qualification upon completion of a programme which lasts no shorter than 2 semesters, corresponding to at least 60 ECTS.

In the academic year 2014/2015, there were 434 HEIs in Poland, including 302 with a non-public status (Central Statistical Office, GUS). Any HEI may provide non-degree postgraduate programmes in the academic areas corresponding to at least one field of study in which it offers degree programmes. HEIs can also provide non-degree postgraduate programmes in other areas upon the consent of the minister responsible for higher education and consultation with the General Council for Science and Higher Education (Rada Główna Nauki i Szkolnictwa Wyższego).

In 2015, 151 555 students, with female students representing 72%, were following non-degree postgraduate programmes.

References:

Nowicki J., Wiśniewski P., 2015 – Uczymy się przez całe życie. Przewodnik po kształceniu ustawicznym. Wpjewódzki Urząd Pracy w Warszawie. Central Statistical Office, 2014

3. Advanced trainings in environmental sector in Poland

In Poland trainings in the area of environmental, nature and climate protection are provide by higher education institutions, centres for further trainings and natural persons conducting business activity. All training institutions are registered in the RIS database (see Chapter 2.7).

In 2016, 13,520 training institutions registered in the RIS offered 139,331 training courses in 30 areas. In 2016 a total of 5 633,766 people participated in training courses in 2016. In the area of environmental protection 283 training institutions offered 933 courses. In 2016, training institutions included in the RIS offered 86,755 courses leading to an examination. Training courses financed by the European Social Fund were provided by 3,016 institutions.

As a part of the Output 1 research the RIS database was searched. In April 2017 offered 765 training courses related to the environment, nature and climate protection. 141 of them were financed by the European Structural Found. In table 4.1 presented number of courses divided into areas.

Table 4.1. Number of training c	ourse in the RIS databa	se (Anril 2017)
Table 4.1. Number of training c		

	Accounting, banking, insurance, investment analysis	Management and administration	Technique and technical articles trade (incl. power engineering, electrics, mechanics, metallurgy)	Mining and processing industry	Architecture and construction	Environmental protection	Transport services	Others
Number	1	4	25	1	9	717	1	7
Percenta ge	0,13%	0,5%	3,2%	0,1 %	1,1 %	94 %	0,13 %	0,9 %

The most numerus was trainings in the area of environmental protection. Topics like Auditor. Environmental Protection. Environmental Energy Auditor. Waste Management and Ecology make up the majority. This shows the great success and interest in these topics. Demand for specialized environmental knowledge in Poland is growing due to the growing environmental awareness of the public society. Also knowing the basic of environmental law is an essential part of the education of the management staff. Without knowledge about environmental requirements and the trends prevailing in it, it's difficult to make rational business decisions. This includes, for example, courses such as Waste Management where legal requirement dictated by European Commission oblige to implement waste management in closed loop (according to statement "0 waste for Europe" from 2014). Similar situation is observed in the case of courses for energetic auditors. In recent years demand for specialist in renewable energies sector rise in Poland (PV installers, energy advisers etc.). The market responds corresponds to a large number of courses in this field. The courses corresponds to the current market demand.

Most of this trainings are short term courses (form several to dozens of hours) provided mostly by private training institutions. The average cost of participation varies from 100 to 600 Euro. In the case of unemployed people existing courses, trainings do not seem to increase their ability to qualify for green professions due to the short duration. It's hard to train in a such system and to meet the expectations of modern economy (lack of knowledge about the technology, no knowledge on reading projects, or familiarizing with the new equipment, services etc. In other hand it should be noted that in the case of the unemployed, even the minimum experience in a given occupation gives them a better chance of finding a job than in case of academic dropouts.

4. Structural interviews - summary

Within Output 1 MEERI PAS conducted 5 structured interviews: 1 with NGO representative, 1 with Employer and 3 with representatives of Educational Institutions.

The employer represents energy sector and has experience in the heating market since 20 years. As the company profile is closely linked to geothermal energy, heating issues and water supply the knowledge of employees is very crucial. Especially knowledge related to the aspects of environment, nature, and climate. Since the beginning company invest in new low emission technologies and infrastructure. Thanks to that implements the EU policy to reduce greenhouse gas emission. Entrepreneur employs highly qualified and experienced engineering and technical staff, additionally, the company is forced to improve the knowledge related to the legal acts or environmental requirements because of the statute of operating plant. So it is important to increase the staff knowledge in fields of Energetic Law, ISO, Building Law and Water Law. All these requirements cause that the employees must have the sufficient knowledge and abilities to problem-solving. This is the main reason why company encourage and allows employees to participate in appropriate training.

In the case of recruiting the new employees, the employer pointed that work experience and references from workplaces are more important than degrees (required at least secondary school diploma). The strategy used by the company during recruiting personnel is based mainly on job advertisements, recommendations, and free applications.

According to the employer in Poland, it is a demand for additional qualifications and competencies for the personnel. Most of the existing academic programmes do not meet market requirements. Science is not following politics and because of that companies have to perform additional training for employees. Currently, according to the employer, higher education do not prepare students for a specific job, in this case – mining. As the most important employer pointed out the lack of internships and lack of textbooks in national language (many foreign publications).

Interviews conducted among representatives of educational institutions showed the state of furthering education in respondents institutions. Offers provided in this institutions contain generally:

- post-graduate studies for people who want to improve their skills, knowledge, and qualifications,
- courses and training (including industrial training) which are ending with a recognizable certificate.

Offer is generally addressed to all groups, but additional requirements for participation in courses are specified in each bid. At least 10% in all offered topics are related to environmental, nature, and climate protection (e.g. Waste management, Environmental Management, Sustainable development, RES). The

most popular by the participants and employers offers are short training or specific courses, especially if they are referring to the new regulations, standards that are required by employers or by Law (certificates). Employers additionally pay attention to whether the acquired skills can be passed on to other employees.

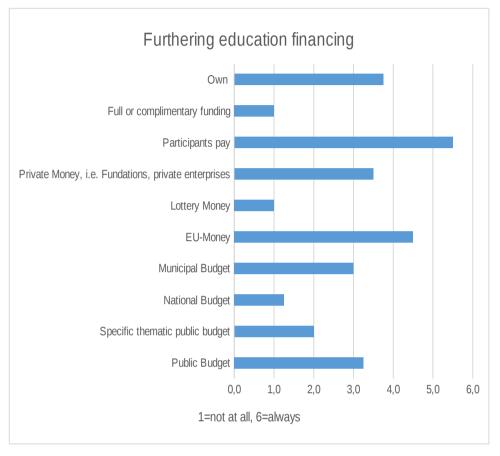


Figure 4.1. Further education financing in Poland

Figure 4.1 presents the ways of financing the furthering education in the respondent's institutions. Most are financed thanks to participants payment, by EU funds or other ways like for e.g. own funds. Some of the respondent's pointed also to such solutions like training vouchers (entrepreneur friendly tool for financing the training of employees. Vouchers has been designed for SMEs). During the process of qualifying the target group most important for institutions are formal degrees (especially technical degrees: master, engineer or bachelor), work experience confirmed by references from workplaces and knowledge update. All respondents indicated cross-sectional knowledge and abilities in addition to specific knowledge as a very important. Opinions on cross-sectional knowledge and abilities have been presented in Figure 4.2. Respondents showed that expectations of a rising number of open job position within "green", "sustainable" and "cross-sectional knowledge" in Poland are very high. According to them the biggest impact on rising job position have political reasons, the minor extent has economic and ecological reasons.

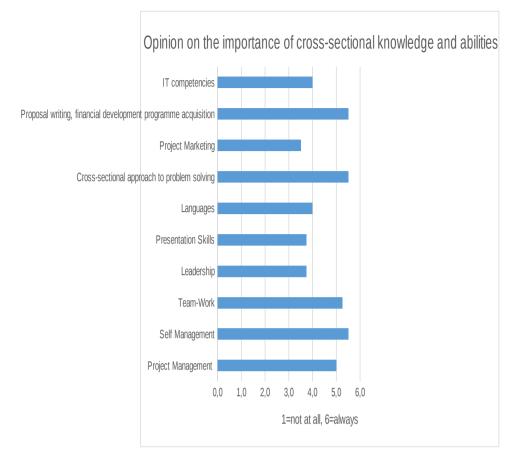


Figure 4.2. Opinion on the importance of cross-sectional knowledge and abilities in Poland

Currently, offers of further education in respondent institutions are varied, but most of them are ending with an official certificate e.g. Certified Auditor of Internal Environment Management System according to ISO 14001, Certificate EMAS, Energetic Auditor, Assistant Certification Environmental Management System issued by PCBC S.A., Internal Auditor Energy Management System ISO 50001. In addition, all post-graduate studies have to an end by exam. The duration of the furthering courses is varied, post-graduate studies are longer than one semester, courses or training usually takes 1-2 days. Only in one of the educational institutions internships are included in furthering courses (thanks to Programme POWER) but none of them are held abroad. The case of the interview with NGOs shows that it is very important to be a part of international networks because it gives the opportunity to take part in a course organized by those networks.

Each respondent also indicated that there is a great need for furthering education in the field of climate-, environmental- and nature protection. Goals that are very important for furthering education courses in respondents opinion are presented in Figure 4.3. According to one interlocutor, there is a major need to support education especially today, in an era of climate changes and environmental problems. That's why education should be introduced at lower levels – for children. Cooperation of the lecturers with children should promote consumer awareness, engage in pro-social

activities. Also, there should be as well collaboration with teachers and local governments. More conferences for public education and public awareness should be organized. Academics should go beyond the environmental science and government, straight to ordinary people.

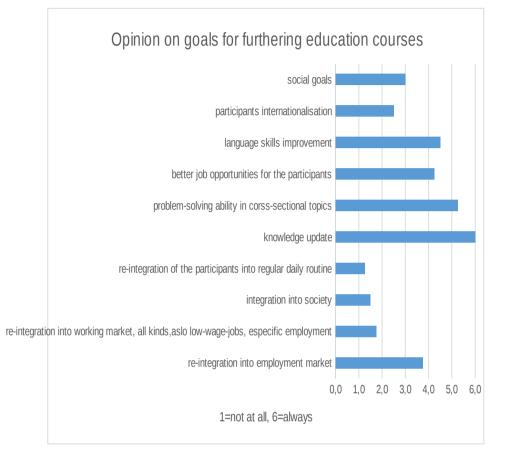


Figure 4.3. Opinion on goals for furthering education courses in Poland

Most common indicators used to measure the success of the furthering education courses are: participant satisfaction and following on from that rising number of course applications, formalized documents to describe competence improvement, access to the regular employment market. In the case of trainers qualifications the most important are work experience (even if compensating missing study or training degree), personality, and experience in a pedagogic field. According to that, there is a pressure on training the trainers as well (academic finance pedagogical training and courses e.g. Pedagogic study, Tutor certificate) to obtain the new training skills.