Baseline Report Key Questions - BULGARIA

1. What are the key statistics regarding YW in the partner country (numbers, growth, employed/unemployed, school leaver statistics, etc.)?

Helping young people to enter the labour market and remain there is an essential part of policies and strategies aimed at promoting economic growth and improving living conditions. Unemployment, especially long-term early in the career, can have long-lasting negative consequences, such as lower future earnings and worse job prospects.

In 2018, around 39.1 thousand young people (aged 15-29) are unemployed in Bulgaria, down from 51 thousand in 2017. Although these figures are still high, annual youth unemployment is decreased by 1.6 percentage points to 8.3% compared to the previous year (9.9%). Long-term unemployed (for one or two years) are 101.6 thousand or 58.6% of all unemployed.

However, the share of those employed in the same age group decreased by 1.2 percentage points - from 42% in 2017 to 40.8% in 2018, which means that the number of employed youths is down to 434 thousand.

Bulgaria holds one of the leading places of early school leavers in the education system. For 2017, school drop-outs in Bulgaria are 13.7%, in 2018 this percentage decreases by 1%. The national target is to reduce this percentage to 11% by 2020. The average rate for Europe in 2017 is 10.5%.

In 2018 the share of young people (aged 15-29) not involved in studying is 18.1% (18.9% in 2017). These are 167 thousand Bulgarians.

2. Are young people in the partner country qualified, experienced, in service, undertaking part-time work, volunteering, etc?

58% of Bulgarians use the internet, but most people do not have the digital skills to allow them to integrate well into the labor market.

With regard to hiring policy, it is noticeable that less than 6% of all employees are engaged immediately after graduating from secondary or tertiary education in the last 1 year (according to data from the Ministry of Labour and Social Policy). This is largely due to the fact that entrepreneurs tend to hold on to experience when they hire employees.

Nearly half (48.6%) of the companies that hired employees immediately after graduation of secondary or tertiary education have found gaps in their preparation. Also, about 49% of companies operating in the public or private sector find a lack of knowledge and skills among young people entering their jobs.

It is a common opinion that the educational system of Bulgaria lags behind the needs of the Bulgarian economy. A major problem of the education system is that the education is carried out using obsolete programs, which are inconsistent with the new realities in the enterprises.

The analysis of youth employment in the National Youth Strategy 2010-2020 shows that there is still no practice for employers to invest in the training and qualification of young workers and employees. In most cases young people have no practical and professional experience in the postgraduate specialty education and have difficulty entering the labour market.
For many young people part-time work is a good method for combining education and employment. As is the case for temporary work, part-time work is also more widespread in the younger age group. The lowest part-time employment rates in the 15–24 age group were recorded in Croatia and Bulgaria (both 6%).

Although in recent years volunteering finds its place in public life in Bulgaria, it can't yet be said that it has gained enough popularity. There are still not many organized activities that involve young people. Volunteering is not yet popular enough as a form of non-formal education and training.

3. What types of non-formal digital education exists in the partner country and what qualifications are offered?

Non-formal education is an extremely important aspect of education, given its effectiveness compared to formal education. Unfortunately, its importance is not recognized at the state level in a number of European countries, including Bulgaria.

Education takes place in schools and academies, most of which do not have a license from the National Agency for Vocational Education and Training, which is why not many are formally recognized.

The first type academies offer digital education that lasts for 3-4 months. They teach highly specialized topics, for example a programming language. The problem with this type of training is that time is insufficient to absorb the whole matter. However, with a high level of personal motivation, trainees have the chance to acquire narrowly specialized knowledge in a particular field.

The second type aims to fill in the missing staff in the big software companies. They provide mass and free training - many people enroll and the best 1-3% are hired by the company. The ones who do not get the job, according to the statistics, are quickly hired by other employers. The purpose of these academies is to create a small number of top specialists. Some software companies offer a combination of internship and training, and the benefit to the companies is again the ability to fill in their missing staff, and for learners - access to people who have a clear picture of the market and the skills it requires.

The third type of non-formal education is also mass training, but the duration is much longer. Trainees begin from scratch, go through the basics of software science to get a narrow specialization. Graduates with honours receive a direct job recommendation.

4. What types of formal digital education exists in the partner country and what qualifications are offered?

The Ministry of Education and Science has developed a curriculum in Information Technology at the initial level of primary education and thus from the school year 2006/2007 an IT course is also studied in elementary schools.

The training in "Information technologies" in the first grades is aimed at acquiring basic knowledge and skills. In the learning process, students acquire an initial understanding of the computer as a technical device; distinguish the main parts of the computer system; understand basic capabilities of graphics, sound and text processing programs, and learn to use them in performing learning tasks.

For the initial stage of primary education, the state educational standard sets requirements for the learning outcomes of a new subject - Computer Modelling. Initial computer modelling training aims at mastering initial knowledge, skills and attitudes related to building digital literacy of students by creating computer models of familiar objects and processes and experimenting with them. Information technology at an early stage exists as an elective subject - this optional subject develops and improves digital competences.

VET schools and universities offer a variety of digital education opportunities.
At HEI level, bachelor degree programs (Informatics, Computer Systems and Technologies, Computer Science, etc.), as well as Master degree programs (Information Technologies, Computer Technologies and Applied Programming, Multimedia, Computer Graphics and Animation, etc.) can prepare young people as computer hardware and software engineers, IT team executives, system and network administrators, web designers, programmers and others. Both regular and part-time training are offered. Bachelor degrees are most often obtained in 8 semesters, and master degrees - in 10.

5. What types of formal learner (FL) digital education providers exist within the partner country? Who are these including size, location, ownership, educational offering, activities organised, etc.

Secondary and VET schools are one of the possibilities for digital education. One of the best in Bulgaria is Vocational Technical High School (Varna). Each year about 170 students graduate from it. Students can choose from several IT majors, one of which is "Computer Technology". The professional training for the major includes the study of the following subjects: Introduction to PC, Programming, Computer Networks, Application Software, WEB Design Programming and others. The full course of study (5 years) allows for the acquisition of secondary education and a third degree of professional qualification in the field of "Computer systems technician". Graduates of this major can work in manufacturing companies and companies in the field of diagnostics, installation, hardware and software maintenance and servicing of computer equipment.
Sofia University "St. Kliment Ohridski "is the first Bulgarian HEI. Today, Sofia University is the largest and most prestigious educational and research center in Bulgaria.

The Bachelor program "Informatics" prepares specialists with fundamental knowledge and practical skills in the field of informatics. The curriculum includes compulsory and optional courses from the main fields of informatics: computer science (programming, computer architectures, operating systems, artificial intelligence, etc.), information systems (databases, design and evaluation of information systems, processes) and software engineering (software methodologies, hardware and software interfaces). Those who have successfully completed this program can find a job as: specialists in information and communication technologies; lecturers in higher schools; applied specialists in the field of science; scientists and others.

6. What types of non-formal learner (NFL) digital education providers exist within the partner country? Who are these including size, location, ownership, educational offering and activities organised, etc.

Telerik is a Bulgarian software company, which is the founder of the Telerik Software Academy. The academy trains future digital builders - children, students and young professionals. Telerik School Academy is a national educational program, which prepares students from the 1st to the 12th grade for the digital future. Over 10,000 students have attended the academy since its creation in 2010, with students being able to choose between 65 schools in 15 cities across Bulgaria. The School Academy offers training in Competitive Development, Digital Science, Game Development, and more.

Telerik Alpha Academy participants, also part of Telerik, are students or young professionals. They attend courses lasting 6 months - equivalent to 440 hours of training. Trainees work upon software solutions with growing complexity and create a final project. Thus, students acquire key skills and the latest programming technologies in a real-life environment. The training for software engineers is based on programming, languages such as C #, HTML, CSS and JavaScript, advanced technologies for creating mobile, web and desktop applications, quality assurance, personal and business skills.

Most training programs give their students certificates and diplomas for successful completion. These diplomas are not state recognized but are often recognized by employers.

7. What is the National Youth Work Strategy (or similar policy provision) in your partner country and the key priorities regarding work? How does this policy support developing digital competencies?

The National Strategy Paper on Youth was adopted in October 2010 for the period 2010-2020. In pursuance of the Law on Youth, the development of an updated National Youth Strategy for the period 2014-2020 was undertaken with the aim of adopting it by the National Assembly of the Republic of Bulgaria.

Part of the strategic goals are:
- Promoting economic activity and career development of young people
- Improving access to information
- Youth volunteer development
- Development of young people in rural areas

Several of the tasks the strategy provides are:
- Improving young people's access to the Internet
- Improving the access of young people to electronic content in public libraries
- Promoting forms of non-formal learning
- E-inclusion of young people in small settlements and rural areas

80% of young Bulgarians aged 15-24 use Internet services on a daily basis - with an EU average of 94%. Despite the massive penetration of information technologies in the lifestyle and work, young people's access to information is still limited and this complicates the development of their digital skills.

8. In your partner country what is the state of play regarding digital skills and competencies? What is the level of attainment and gaps identified by employers and/or young people? What is the national strategy to support development of these strategies?

58% of Bulgarians are online. Nevertheless, two thirds of citizens do not have basic digital skills and STEM graduate numbers have not increased, despite growing demand by the labour market.

An e-skills strategy was elaborated in 2014, setting out ways to modernise the education system, improve access to quality education and increase the offer of IT training in formal and non-formal education.

A reform of the higher education system aimed at increasing performance and labour market relevance is ongoing. A list of 32 priority professional fields has been defined in order to prioritise funding in public universities. This includes fields related to science, technology, engineering and mathematics (STEM), in particular ICT and mathematics. It is worth noting that the Bulgarian Digital National Alliance continues to carry out multiple activities for increasing digital skills levels.

"IT companies at school and teachers in IT companies" is a new national program of the Ministry of Education and Science of 2019. It provides practitioners to teach specific modules together with classroom teachers as well as to accept teachers in their offices and to provide them with the most up-to-date knowledge and skills to work in the virtual world.

9. What is the type and size of marginalised communities in your partner country? What support is being developed/provided by government, social economy and voluntary sector to support these communities in their learning?

According to a Eurostat data (2018), 38.9% of the Bulgarians were at risk of poverty or social exclusion. 63.7% of the people with disabilities are at risk of social exclusion or poverty.

A National Strategy for Poverty Reduction and Promoting Social Inclusion 2020 is one of the strategies to support these communities. Its aim is to improve the quality of life of vulnerable groups in Bulgarian society and to create conditions for their full realization by reducing poverty and promoting social inclusion. Some of the measures envisaged are:

- Support for school attendance for pupils from vulnerable groups living in remote areas, coming from low-income families and others;
- Priority participation of children from risk groups in full-day school;

Accessibility is one of the challenges before vulnerable groups' representatives. Accessible use of information and communication technologies is an important factor promoting social inclusion. Providing access to information and communication is a serious problem requiring measures aimed at enhancing computer literacy, skills and regular use of the Internet among representatives of vulnerable groups; providing accessible information and advice.

The Program for Equal Opportunities and Inclusion of Children and Students from Vulnerable Groups also aims to ensure that children and pupils have access to education regardless of their ethnic background, disability or the economic situation of their families. The inclusion process involves:
- Providing additional support for personal development for pupils with special educational needs
- Ensuring equal access to education for pupils at risk

10. What accreditation is given for Formal (FL) and Non-Formal (NFL) digital Learning in your partner country? Are these widely recognised by employers? Are there any digital competencies frameworks for young people to use to accredit their skills, learning and/or experiences?

In Bulgaria school education up to the age of 16 is mandatory. Higher education is not mandatory, it is carried out in accredited universities - universities, colleges, specialized higher education institutions and scientific organizations. Upon completion of secondary or tertiary education a diploma is issued - a certificate of completion of an educational establishment.

The diplomas or certificates of many IT academies belonging to NFL providers are issued on a model form issued by the Ministry of Education and Science and often are valid and recognized both in Bulgaria and throughout the European Union.

According to Eurostat, there are more than 30% non-university employees in the IT industry (some have a degree but not in the IT field). Employers, for their part, are looking for practical experience, so formal education is not always important. The field allows for qualification and experience through courses, certificates and self-training, and for some of the Bulgarian companies this is enough. The diploma is a mandatory requirement for about 40% of the candidates sought. In other cases, employers want practical experience or offer a starting position for students that are still studying.

Digital skills are highly valued by employers. Even though in Bulgaria, as in many European countries, digital skills are often acquired through non-formal learning, Bulgaria has not yet developed and implemented a system for validating competences acquired through the process of work, from non-formal or informal learning.

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