



# **Mutual Learning Programme**

DG Employment, Social Affairs and Inclusion

**Host Country Discussion Paper - Bulgaria**

## **Workforce Competence Assessment - in retrospect and in perspective**

**Peer Review on "Competence Assessment System:  
MyCompetence"**

**Sofia (Bulgaria), 28-29 November 2019**



**EUROPEAN COMMISSION**

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Contact: Kim Henriksson

E-mail: [EMPL-A1-UNIT@ec.europa.eu](mailto:EMPL-A1-UNIT@ec.europa.eu)

Web site: <http://ec.europa.eu/social/mlp>

European Commission

B-1049 Brussels

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## DG Employment, Social Affairs and Inclusion

Directorate-General for Employment, Social Affairs and Inclusion  
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## **List of Abbreviations**

|        |   |
|--------|---|
| BIA    | Bulgarian Industrial Association  |
| CM     | Competence model  |
| EA     | Employment Agency   |
| ECVET  | European Credit System for Vocational Education and Training                                |
| EU     | European Union  |
| ESCO   | Multilingual classification of European Skills, Competences, Qualifications and Occupations |
| ESF    | European Social Fund  |
| EQF    | European Qualification Framework  |
| HRM    | Human Resource Management   |
| HRD OP | Human Resources Development Operational Programme   |
| ISCED  | International Standard Classification of Education  |
| LMP    | Labour Market Policy  |
| LO(s)  | Labour Office(s)  |
| MC     | MyCompetence – Workforce Competence Assessment System                                       |
| MES    | Ministry of Education and Science   |
| MLSP   | Ministry of Labour and Social Policy  |
| NAVET  | National Agency for Vocational Education and Training                                       |
| NCAC   | National Competence Assessment Council  |
| NCAN   | National Competence Assessment Network  |
| NSI    | National Statistical Institute  |
| NQF    | National Qualification Framework  |
| NCPP   | National Classification of Professions and Positions  |
| RCAC   | Regional Competence Assessment Centre   |
| SES    | State Educational Standards   |
| SSC    | Sector Skills Committee   |
| SSU    | Sector Skills Unit  |
| VET    | Vocational Education and Training   |

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## Executive summary

The Workforce Competence Assessment System: MyCompetence (MC)<sup>1</sup> is an online platform in the field of human resource management and development, which offers information on models of sector competences for key positions; job descriptions; assessment tools; e-learning resources and other specialised services for assessment and development of workforce competencies<sup>2</sup>. MC is motivated by the need to tackle a number of challenges related to mismatches between the labour supply and demand in terms of knowledge, skills and competencies. It was proposed by one of the Bulgarian employers' organisations - the Bulgarian Industrial Association (BIA)<sup>3</sup>. The work on it began with the project 'Development and Implementation of a Workforce Competence Assessment System by Sectors and Regions' (2009-2014), co-funded by the European Social Fund (ESF) under the Human Resources Development Operational Programme (HRD OP, 2007-2013). The competence assessment initiative continued with a second ESF project in the period 2015-2019, again under the same programme (2014-2020). Following its completion, in September 2019, the ownership and copyrights of MC system were transferred to the Ministry of Labour and Social Policy (MLSP) who will continue to run it.

The overall aim<sup>4</sup> of MC is to contribute to achieving a better balance between labour market supply and demand in Bulgaria. The specific objectives are to create and maintain functional compatibility and possibilities for integrated data usage; generate and collect information and know-how with regards to the implementation of a competency-based approach in human capital development in a single source; and support and facilitate the initiation of effective measures (at sector and regional level) for employment and skills development, thus supporting lifelong learning.

*The MC's target groups include employers, employees, job seekers and other individuals. It is also a useful and available instrument for the experts in secondary and tertiary schools, academic institutions, centres for vocational education and training and labour administrations at various levels. All services and information in MC are free of charge and this makes the platform more accessible for its users.*

*MC provides services for employers that help them to communicate the competencies, skills and knowledge that they (will) need. For individual users, MC services provide for competence assessment and development – a crucial factor for targeted career progression. Moreover, they facilitate changes and updates to the educational curricula so that the knowledge, skills and competencies developed during the years of education match the requirements on the side of labour demand.*

The challenges for keeping MC up to date in a rapidly changing economic reality are numerous. Addressing these challenges require intensive interaction between institutions representing the state, employers and employees. As long as such cooperation is required for solving issues related to the functioning of the labour market and reforms in education system, MC has proved its potential and capacity to add value, and thus should continue to support the policy agenda.

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<sup>1</sup> [www.mycompetence.bg](http://www.mycompetence.bg)

<sup>2</sup> Definition of MC according to its creators.

Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 5.

<sup>3</sup> BIA is a union of Bulgarian business and one of the representative organisations of Bulgarian employers.  
<https://en.bia-bg.com>

<sup>4</sup> The overall aim and the specific objectives are formulated in: MyCompetence - necessity, results and challenges. Final report, 2015, p. 14.  
<https://en.mycompetence.bg/static/1>

## **1 Rationale for the introduction of a Workforce Competence Assessment System**

In recent years, the Bulgarian labour market stabilised after the crisis in 2008. It has been characterised by a steady increase in the employment rate and a sharp fall in the unemployment (Figure 1 and 2 in Annex 1). At the same time, the job vacancy rate (Figure 3 in Annex 1) has increased. Yet, employers underline that they often have difficulties to find applicants with the right skills to fill vacancies. Jobseekers are frequently either over- or under-qualified, or do not have the right skills and competencies for the job. In terms of educational attainment, the proportion of the population with secondary and tertiary education is growing. Moreover, demographic trends have resulted in decreasing numbers of individuals in working age. Amid these changes, the problem of unsatisfied labour demand is deepening and has become a particularly serious issue. As a result of the dynamically changing requirements of the modern economy (including the fourth industrial revolution), many workers need to acquire new and higher-level skills to match the requirements of the job market.

Addressing the issue of skills mismatches in Bulgaria from the supply side requires an enhanced effort of increasing the number of workers with post-secondary academic or vocational qualifications and promoting access to up-skilling and re-skilling in non-formal and informal contexts.

However, policy makers and stakeholders also need to tackle the issue of skills mismatches from the demand side. Successful demand-oriented strategies need to be based on a detailed understanding of the skills required by employers to fill vacancies and complemented by smart skills management strategies leading to sustainable employment relations, effective deployment of the workforce and optimal utilisation of workers' competences in the workplace. The Bulgarian Workforce Competence Assessment system has proven highly instrumental in that regard.

### **1.1 Key trends in labour demand and supply mismatches**

The unsatisfied labour demand is one of the major problems that hinder the performance of Bulgarian enterprises, according to employers. The information coming from the business surveys of the National Statistical Institute (NSI), shows that the problem has been escalating since 2012. The mismatches are most pronounced by employers in the construction and manufacturing industries (Figure 4 in Annex 1). In these sectors the share of employers who declare that they cannot fill their vacancies has increased by 34.0 and 25.0 percentage points (p.p.) respectively over the last 6 years. Similarly, for the retail and services sectors these shares of employers has raised up by 20.5 and 19.2 p.p. The employers' responses relate to both quantitative shortages and mismatches between supplied and demanded skills of the available labour force.

According to Eurostat experimental data, in 2018, the vertical mismatches, or the over-qualification rate<sup>5</sup>, was 23.6% for Bulgarians aged 20-64 with tertiary education (International Standard Classification of Education - ISCED), level 5-8) and working in occupations in major groups 4-9 (International Standard Classification of Occupations - ISCO). This rate was slightly above the EU-28 average (22.7%). The rate was considerably higher throughout the period 2010-2016 (Figure 5 in Annex 1). For the last decade these mismatches in Bulgaria increased faster (by 3.4 p.p.) than in EU-28 total (by 1.9 p.p.). In 2018, the highest mismatch indices were observed in manufacturing (36.6%), construction (25.0%), wholesale (36.1%) and transport (36.0%).

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<sup>5</sup> Overqualified workers are defined as employed persons who have attained tertiary education and who work in occupations for which a tertiary education level is not required; equivalent to the major groups 4 to 9 of the ISCO 2008 classification.

Skills mismatch experimental indicators - Methodological note.  
[https://ec.europa.eu/eurostat/documents/7894008/9596077/Methodological\\_note.pdf](https://ec.europa.eu/eurostat/documents/7894008/9596077/Methodological_note.pdf)



The rates of horizontal skills mismatches<sup>6</sup> (in the whole economy) by field of education was 26.7% in 2018 for Bulgarians aged 15-34 with ISCED level 3-8 and 29.0% for those aged 25-34 years (ISCED 5-8). The rates decreased after 2016 (Figure 6 in Annex 1) and were lower than the EU-28 average for both age groups in 2018. In the 25-34 age group, the share of university graduates who do not work in their area of specialisation is highest in 'humanities, languages and arts' (51.0%), followed by graduates in 'engineering' (47.9%) and 'science, mathematics and computing' (35.6%).

Vertical mismatches between labour supply and demand are expected to remain in the medium to long-term according to Bulgarian labour market forecasts (2017-2034)<sup>7</sup>. For the period 2008-2017, the over-qualification rates<sup>8</sup> were lowest for persons with secondary education, followed by the rates of those with higher and primary education. The forecasts for the period 2017-2034 show a structural deficit of persons with secondary education and surpluses of people with tertiary and primary education.

The vertical mismatches are observed for industries that are very important for the Bulgarian economy. The horizontal mismatches highlight potential losses of human resources that have high probability to develop as human capital. For a catching-up economy, such as Bulgaria, the losses of human resources with higher education are especially painful, as these are the people who can contribute to an accelerated economic development. The forecasted deepening structural deficits of the labour force require effective measures to address the secondary and tertiary education situation and their future.

## **1.2 Main issues that could be addressed through a Workforce Competence Assessment System**

The key trends of labour demand and supply in Bulgaria lead to a number of issues that concern employers, employees, jobseekers, teachers, students and experts in education, training and labour administrations.

These issues include the following:

- Employers are looking for capable and knowledgeable individuals to fill specific positions and perform certain job responsibilities. Given the frequent mismatches on the Bulgarian labour market, employers and human resource managers (HRM) need high-quality tools to find the right people. They must formulate the requirements for the skills and competencies related to a certain position very precisely, and against clear standards and criteria.
- Persons seeking a new or a stable employment and advance in career need an access to information about specific and suitable available positions, as well as about what other skills or competencies they should develop.
- The general education and VET systems regularly have to receive feedback on demanded professions (and specialties) in order to support their advance through practical training.

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<sup>6</sup> After matching fields of education (ISCED) to occupations (ISCO), persons working outside their field of education are considered as individuals with horizontal skills mismatch. The rate of skills mismatch by field of education is defined as the discrepancy between a person's current occupation and their field of education related to the highest level of education attained.

Skills mismatch experimental indicators Methodological note.  
[https://ec.europa.eu/eurostat/documents/7894008/9596077/Methodological\\_note.pdf](https://ec.europa.eu/eurostat/documents/7894008/9596077/Methodological_note.pdf)

<sup>7</sup> In a long run an increase in the demand for teachers in secondary education, nurses and midwives, health care staff, social workers and administrative specialists, is expected. Employees in sector of creation and dissemination of information and creative products will increase, followed by those in the field of information technology and information services.

Mid- and long-term forecasts for labour market development in Bulgaria (2017 - 2034).  
<https://mlsp.government.bg/ckfinder/userfiles/files/politiki/zaetost/>

<sup>8</sup> Education levels include primary and lower education; secondary education; and higher education. Calculations are made for the age group 25-64 years based on Eurostat data. The over-qualification rate is calculated with the formula used by Eurostat.

- The utilisation of the competence approach is a common practice for most European countries and has had to be broadly introduced in Bulgaria. EU level initiatives (European Qualification Framework (EQF)/ National Qualification Framework (NQF), New Skills Agenda - Multilingual classification of European Skills, Competences, Qualifications and Occupations (ESCO)) also called for an appropriate infrastructure establishment to implement the competence approach in Bulgaria.

## **2 The Bulgarian Workforce Competence Assessment System: MyCompetence.**

### **2.1 The development of MyCompetence**

The launch and expansion of the MC was carried out mainly by the Bulgarian Industrial Association (BIA)<sup>9</sup> under two consecutive projects under the HRD OP. The two nationally representative trade unions - the Confederation of Independent Trade Unions in Bulgaria and the Confederation of Labour "Podkrepa" - were partners in the first project, but the second was implemented independently by BIA.

During the work within these projects, BIA established partnerships with institutions interested in the potential benefits that MC could bring. For example, the Ministry of Labour and Social Policy (MLSP) and the Employment Agency (EA)<sup>10</sup> participated in the exchange of information on the labour market, training of experts to work with MC, dissemination of information and promotion of the system. The development of MC also triggered other important interactions and discussions, including with the Ministry of Education and Science (MES), the National Agency for VET (NAVET), training centres for adults and career centres. It is also important to mention the partnership network of 400 pilot enterprises in which competency models and other functionalities of MC have been tested.

The MC development project started in the years dominated by the consequences of the 2008 global economic and financial crisis and thus faced serious challenges. In order to be successful, it had to inform and influence changes in employment policies and support educational reforms. MC also had to become an element of the strategic developments in human resource management. Therefore, MC was designed to have an impact on several key aspects of the National Employment Strategy (NES)<sup>11</sup>, including facilitating the transition of young people from education to employment; enhancing lifelong learning; and improving access to various forms of career guidance. The MC platform was also developed in line with strategic European projects and programmes such as ESCO and EQF.

As such, since the very beginning of the work on MC, it has been aligned with the main national and EU strategic priorities.

### **2.2 Governance model and the role of Sector Skills Committees**

MC is governed by a National Competence Assessment Network (NCAN, the Network). It consists of a National Competence Assessment Council (NCAC, the Council), Sector Skills Units (SSUs) and Regional Competence Assessment Centres (RCACs) (Figure 1 below). The organisational infrastructure for the MC information system development encompasses 25 SSUs and 10 RCACs<sup>12</sup>.

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<sup>9</sup> BIA is a union of Bulgarian businesses and one of the representative organizations of Bulgarian employers. <https://en.bia-bg.com>

<sup>10</sup> The Employment Agency (EA) is an executive body to the MLSP.

<sup>11</sup> National Employment Strategy, <https://www.mlsp.government.bg/index.php?section=POLICIESI&lang=&I=248>

<sup>12</sup> The National Competence Assessment Network (NCAN) is built up using a matrix-type organisational structure and operates through a set of common principles and rules. Its basic functions are related to the

Figure 1. Structure of the National Competence Assessment Network



Source: *Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 30.*

The Council is a permanent body for cooperation, consultations and promotion of MC by sectors and regions<sup>13</sup>. It fosters the exchange of feedback between the RCACs and SSUs within the Network. This Council completes the work on the sector-level competence models by validating them and recommending them as professional standards. Also, it elaborates proposals for amendments in legislation and policies, mainly in the field of employment and education. Another important responsibility of the Council is the elaboration of proposals for updating the National Classification of the Professions and Positions (NCP) in Bulgaria.

Each SSU consists of Sector Skills Committees (SSCs), sector referent (advisor) and expert teams. The network of these committees assists the implementation of core project activities. Their main task is to develop, validate and update sector competence models. They also validate the online training courses and assessment tools. The SSCs assist in terms of working out the content of professions as an element of the state educational standards (SES) for VET. Another vital part of the work of these committees is the surveys and sector/regional analyses carried out.

The methodological coordination of activities related to research, consultation of people in the processes of development, validation and implementation of the competence models is executed by sector advisors and expert teams of leading managers, technologists, HRM experts, evaluators and analytical specialists.

The work of the RCAC is related to competence assessment at regional level. They are supported in terms of methodology by the National Council. The regional centres work in partnership with the labour offices, as well as educational and state administrations at local level.

### 2.3 The implementation of MC: competence models, e-tools, e-learning platforms, sectors covered

The methodology behind MC and its structure (Figure 9 in Annex 1) is based on the Kaplan and Norton model for measuring and setting human capital strategic readiness (Strategy maps, 2004).

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development, operation, management and continuous update of a large bulk of information concerning workforce competencies presented in various aspects.

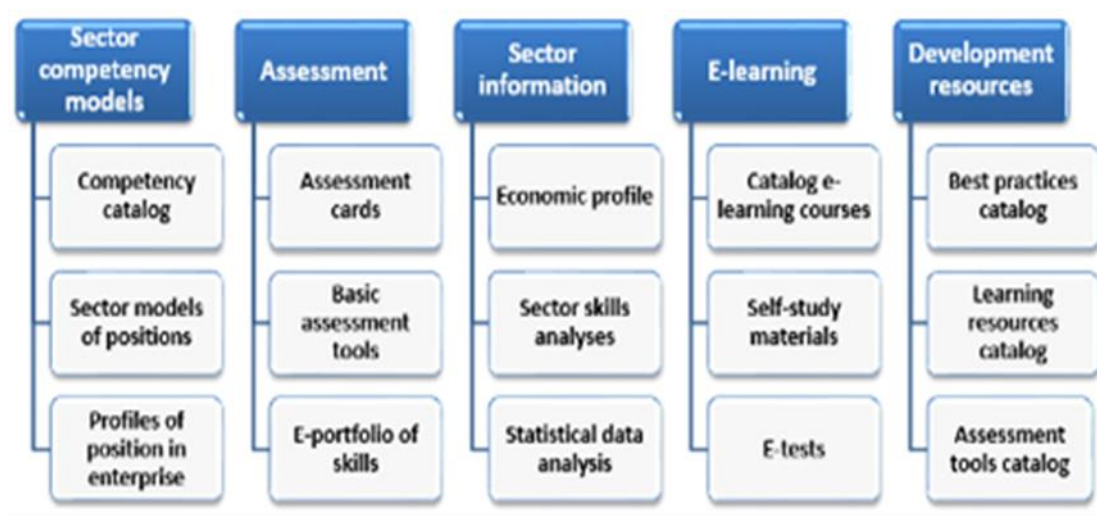
<sup>13</sup> This Council consists of 24 representatives of sector and regional associations which are members of BIA, the Ministry of Education and Science, the Ministry of Labour and Social Policy, the National Agency for Vocational Education and Training, the Bulgarian Association for People Management, leading professionals.

MC consists of five (main) elements/modules (Figure 2) that deliver its services and other types of outcomes, namely:

1. Models of sector competences
2. Competence assessment
3. Economic sectors information
4. E-learning
5. Development resources

The modules are organised as an online platform. Each of the modules are described in more detail below.

Figure 2. Main elements/modules of MyCompetence



Source: Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 42.

### 2.3.1 Sector competency models

The sector competency models comprise key positions in each sector covered by MC. They include a description of the knowledge, skills and the competencies needed for the successful job performance.

The experts involved in the work on MC use definitions that are commonly accepted by professionals in these fields. The *competencies* are considered as a set of knowledge, skills, attitudes and behaviours of employees for achieving results (demonstration level) in a given professional role, or within a particular organisation<sup>14</sup>. The *skills* are the ability to apply knowledge while carrying out tasks and solving problems, i.e. application of knowledge and learning outcomes acquired by working experience in a cognitive and practical aspect. The *knowledge* is the set of facts, principles, patterns, theoretical models and practice related to the work or study sphere; the final output of information acquisition through learning and it is being defined as either theoretical or factual<sup>15</sup>.

The key job positions are those that are crucial to the success of a company and for the realisation of the strategic priorities of the sector<sup>16</sup>. They concentrate a significant potential of knowledge and skills and/or have a major influence on the decisions,

<sup>14</sup> It only will be said here, that competence differs from the competency that is acquired at the end of certain training or educational degree. The competency is about the personal professional abilities and attitudes towards work. It is considered as one of the main prerequisites of graduates' employability.

<sup>15</sup> Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 5. En.competencemap.bg

<sup>16</sup> For example, for the construction sector, only four key positions have been selected - chief civil engineer, investment project manager, technical supervisor and construction manager.

resources and outputs of the company's operations. Key job positions correspond with the NCPP, ESCO and the NQF.

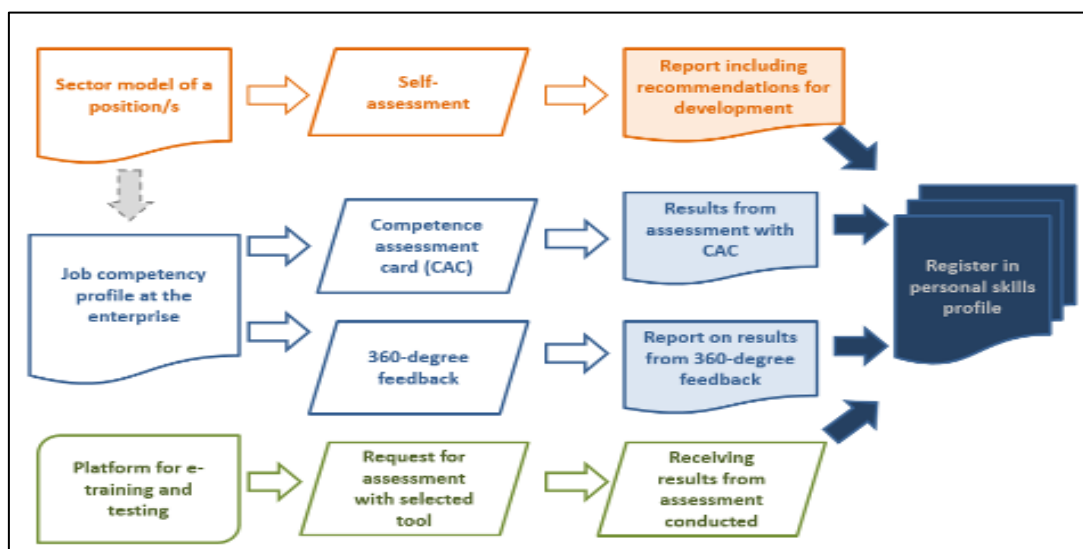
The competencies are described with a name, type (core, specific or managerial one); definition (a brief description of the essence of the competencies according to the given sector); recommended level of mastering and behaviours related to the successful demonstration of the competencies. They are classified into three groups – general, job specific and managerial competencies<sup>17</sup>. The selection and description of competencies is done according to the qualification levels set out in the NQF. Each competency is linked to the clusters created in MC<sup>18</sup> and the respective NQF qualifications. The key job positions and the competencies required for their demonstration are organised in a competency catalogue.

Based on preliminary research, BIA experts focused on developing competence models for 25 of the most important sectors of the national economy. These pilot sectors<sup>19</sup> include automotive, building, cannery, dairy and chemical industries; construction, cosmetics, electric vehicles, electrical engineering, electronics, energy, facility management, furniture, machine building, meat processing, mechatronics and automation, metallurgy, mining and quarrying, retail, security and safety, soft drinks, software industry, tourism, transportation, and wholesale. Within these 25 sectors, pilot enterprises, institutes, laboratories and other organisations were selected to test the MC tools.

### 2.3.2 Competence assessment

The competence assessments include e-questionnaires and tests to help users assess their own level of mastering specific competences, hence their professional suitability (Figure 3 overleaf)

Figure 3. Competence assessment



<sup>17</sup> Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 5.

En.competencemap.bg

<sup>18</sup> Classified clusters are: design, development and implementation; technologies; processes and operations; working with technical, technological and other documentation; working with tools, machines, equipment; working with regulations, standards and requirements; transport, logistics and supplies; repair and maintenance; information and digital competences; management, finance and administrative activities; business competencies; marketing and sales; providing services; social and communication competencies; personal effectiveness and self-improvement; loyalty and integrity; and people development.

Competency Assessment System – necessity, results, challenges. Final report, 2015. p.6;43-44.

En.competencemap.bg

<sup>19</sup> An additional pre-condition for including a key sector was its membership in BIA.

Source: *Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 47.*

Self-assessments are accessible to all interested of its individuals. It may also be requested by a job supervisor as an element of a general performance appraisal. The test results are provided to the individual as a report that contains recommendations for further professional development. For the needs of human resource management at company level, MC recommends an assessment card based on the competence profile of a position in the company<sup>20</sup>, as well as specialised 360-degree feedback techniques<sup>21</sup> (e.g. on the suitability of a person for a particular position).

Important results for Bulgarian companies following the completion of the second BIA project are the module for corporate competency models and a system for assessment of the competencies of the personnel; the module for the engineering (design, audit analysis, evaluation) of the positions in the enterprises.

### 2.3.3 Information about the economic sectors

A set of data and statistics on employment in the pilot sectors; key jobs; information on pilot enterprises and the competences required for their performance are also included within the MC platform. These are part of module 3 'Information about the Economic Sectors'.

### 2.3.4 E-learning

E-learning is a typical on-line training course platform. It includes 42 online training courses on key competencies, hand-out materials for self-study, information about additional certificates required, or recommended, in different sectors and information about training providers in Bulgaria. Access to 14 international e-learning platforms is also provided within MC. It also includes a concept and technical specifications of an electronic module for analysis and assessment of the training needs of the personnel in the company and for measuring of the effectiveness of training. Some of the assessment tools and e-courses on the MC platform are listed in Table 1 below.

Table 1. Most popular assessment tools and e-training courses in MyCompetence

| Assessment tools   | E-courses  |
|--|--|
| <ul style="list-style-type: none"> <li>Management competencies</li> <li>Emotional intelligence</li> <li>Satisfaction and motivation (of the work/job)</li> <li>Social competencies</li> <li>Commercial competencies</li> <li>Team efficiency</li> <li>Problem solving and decision-making</li> <li>Conflict management</li> <li>Managing change in the organisation</li> </ul> | <ul style="list-style-type: none"> <li>Effective team management</li> <li>Recruitment</li> <li>Leadership and emotional intelligence</li> <li>Effective application of Microsoft Excel</li> <li>Coaching for managers</li> <li>Digital competence at base level</li> <li>Training for trainers</li> <li>Performance management</li> <li>Conflict management</li> <li>Successful presentations</li> </ul> |

<sup>20</sup> The competence assessment card is an assessment document based on a particular competence profile for a position in an enterprise. It covers the appraisal process, sources of information about performance, standards and tools for assessment and self-assessment.

<sup>21</sup> This is actually a 360-degree feedback (one's opinion, comments, expectations and recommendations) about the job performance of an employee hired at a particular position in the enterprise. It is obtained by means of a questionnaire sent to the direct supervisor, colleagues, subordinates, clients, partners and other people interested in collaboration with the employee; and by a self-assessment questionnaire. The results present discrepancies between expectations and the real level of competence demonstrated by the employee, as well as the deficit areas which need to be improved.

| Assessment tools  | E-courses  |
|---|--|
| <ul style="list-style-type: none"> <li>• Business processes</li> <li>• Successful trade negotiations</li> </ul> | <ul style="list-style-type: none"> <li>• Finance for non-financiers</li> <li>• Introduction to sales management</li> </ul> |

Source: BIA, upon request.

### 2.3.5 Development resources

This module provides a resource catalogue, organised as an online library of resources for competence development and assessment. The catalogue can contribute to outlining the different pathways to developing a particular competency: formal educational courses, publications and participation in projects. It also informs about competency application, educational providers in Bulgaria and sources of additional information.

In 2019, the module 'Development Resources' was enriched with two new products:

- a catalogue of competences by professions: and
- a catalogue of generic competences.

A *Dictionary of the definitions in the competency-based management* has also been uploaded. The developed taxonomy informs MC users about the opportunities for professional mobility both within Bulgaria and between European countries and about the associated general requirements for professional qualification.

*The outcomes of the modules* (services, courses, tests, catalogues, etc.) are oriented towards the needs of MC beneficiary and its target groups by suggesting (optional) tools for solving some of the problems of employees and those looking for a job and of managers. After the assessments and participation in training courses, individuals can build up their own portfolio that reflects their improved employability, career prospects, opportunities for profession change and new employment.

MC provides timely feedback on individual performances based on transparent, clear and objective criteria and procedures. Moreover, employees are informed about what their career prospects are and what knowledge and skill development curricula are needed to advance in their careers.

The competency models for particular professions and positions by sectors may contribute to improvements in labour force assessment processes, planning and development, including through the introduction of new models for competitive human capital development, in case of their mass use. MC assists human resource managers at the company level to formulate requirements for employees by setting (optional) professional standards for performance at key positions, bound to the vision for the future development of the sector over the next 4-5 years. MC can deliver objective arguments about the differentiation of compensation at company level; shorten the induction of new employees; and decrease costs associated with ineffective recruitment, if applied.

As a partner to the business, the platform can add value to improvements in organisational efficiency, productivity and competitiveness. The free and open access to MC tools helps small and medium-sized companies to apply the services and products relevant to the field of their operations.

MC introduces uniformity in the terminology used in the field of HRM, training of the workforce and applying competence approach through the catalogues and dictionaries mentioned above.

## 2.4 The policy influences

MC is related to labour market policies, as far as one of its main objectives is to support and increase labour market participation. It can contribute to reducing the number of inactive people by proposing opportunities for training to acquire knowledge, skills and

competencies sought by employers. MC offers tools that can help labour market stakeholders to work more effectively. MC provides information about the skills and the competences of the labour force and their deficits. Well-developed (and updated) models within MC recommend professional standards that exceeds current requirements. They also contain projections of necessary knowledge, skills and competences for the most important (key) positions.

MC also delivers information and tools that facilitate the transition from education to employment. The results of the sector analyses and surveys which were carried out during the development of the platform assure relevant basic information for forecasting and targeting employment policies.

MC provides for the implementation of labour market policies from the Council recommendation on Upskilling Pathways for adults (2016), and for the provision of better opportunities for those with low levels of skills, knowledge and competencies (Country specific recommendation, June 2019)<sup>22</sup>. The process of reviewing and updating the NQF aims to achieve better positioning of national qualifications and to ensuring better referencing to the levels of the European Qualifications Framework.

According to the creators of MC, the competency models available in MC are a suitable onset for the recent development of professional standards to the vocational education curricula and syllabi. The sector competency models in the system allows expansion, as well as further specifying different forms of partnership between business and vocational education and training based on agreement and adoption of the so-called sector qualification frameworks. MC may be widely used in the dual vocational training implementation, both in the curricula design and negotiation, and in the teaching process itself. The professional standards may serve as a good basis for relating the qualifications and the given number of competencies to the NQF levels<sup>23</sup>.

### 3 Implementation of MyCompetence

#### 3.1 Results

##### 3.1.1 Sector models

Table 2 below gives an overview on the sector models available by the end of the year 2018.

Table 2. Sector models developed

| Sector models   | Catalogue of competencies  |
|---|--|
| <p>541 updated and new competency profiles in 25 sectors</p> <ul style="list-style-type: none"> <li>• 1 278 models for close and similar positions and with synonymous names</li> <li>• 8 764 units of knowledge</li> <li>• 9 007 units of skills</li> <li>• 32 308 behavioural indicators</li> </ul> | <p>1 005 competencies in total, in 17 clusters of competencies:</p> <ul style="list-style-type: none"> <li>• 86% specific</li> <li>• 14% transferable</li> </ul> <p>Structure according to Europass area:</p> <ul style="list-style-type: none"> <li>• 72% professional</li> <li>• 15% organisational</li> <li>• 8% communicative</li> <li>• 5% digital</li> </ul> |

Source: BIA, upon request.

<sup>22</sup> <https://www.consilium.europa.eu/en/policies/european-semester/>

<sup>23</sup> Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 92. En.competencemap.bg



According to a study conducted by BIA<sup>24</sup>, the sector models developed are corresponding to the ESCO models in terms of knowledge and skills. Compared to ESCO, MC models cover a larger number of soft skills. These are grouped together with communication and collaboration/teamwork skills which are important for successful performance in a dynamic business environment.

### **3.1.2 Number of beneficiaries**

For the period June 2015-June 2019, the total number of visits (not unique users) to the MyCompetence portal reached 2.3 million<sup>25</sup>. It has 40 000 registered users (employers, educational institutions, employees and job seekers), which represents a tripling of registered users since 2014.

As of June 2019, 25 000 users have completed competency assessment tests, or have taken an e-learning course. Among the most frequently assessed competencies are managerial competencies (20.7%), emotional intelligence (17.0%) and social competencies (14.2%). The most popular online courses are effective team management; recruitment; and leadership and emotional intelligence.

The MC user data show that the platform is visited and utilised primarily by HR managers, students, university teachers and job seekers.

It is difficult to comment on the number of companies that use MC, as there is insufficient data to support conclusions on this. It can be speculated that the majority of the registered users (40 000) are actually companies or public organisations, or that the number of companies that use MC is three to five times higher than the 250 pilot companies included at the start of the first project. However, there is no evidence/data/statistics to conclude whether the competency models of MC are actually in use by the companies who have registered.

A report on the applicability of the European Competency Standards to the Bulgarian labour market<sup>26</sup> shows that the terminology/competencies from ESCO are not used in the wording of job advertisements for vacant positions. No references to competency models have been observed. This may be interpreted as an evidence that MC, or ESCO based competency models are not widely adopted and their terminology is not popular.

HR professionals from different sectors report that they see limitations in adopting MC<sup>27</sup>. They are concerned that, at present, the market in Bulgaria is driven by labour supply and not so much by labour demand. There are more vacancies than there are candidates and competition for talent could become aggressive. Under such circumstances, companies need to lower the bar and make compromises regarding the quality/accuracy of their hiring decisions. Obviously, under such circumstances, competency assessment at the stage of recruitment is not in a position to add value. However, human resource managers acknowledge the usefulness of a competence-based approach and that they prefer to use it in their work.

### **3.1.3 Reconciliation of the competence models/standards to the development of state education standards (SES) to better address the needs for skills**

MC is used by experts at NAVET for describing a profession as an element of state standards for vocational education. NAVET expert groups consult with the sector competence councils and ask them for information about certain groups of professions; new professions that have appeared and those rejected from the practice. Employers participate in examination commissions and specialised councils and committees. They

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<sup>24</sup> Report on the applicability of the European Competency Standards to the Bulgarian labour market, July 2019, BIA. The research was co-funded by ESF, HRD OP

<sup>25</sup> Here and further in part 3 the information was received by BIA.

<sup>26</sup> Report on the applicability of the European Competency Standards to the Bulgarian labour market., July 2019, BIA., p. 143.

<sup>27</sup> Common position of the interviewed human resource managers.

also take part in the elaboration of the annual plans for admission of students and in recommendations for amendments to the legislation.

It cannot yet be argued that MC has made a significant contribution to increasing the attractiveness of VET. The Bulgarian VET-reform started only after the finalisation of the first MC project in 2015 and included changes to the legislation. Unfortunately, the potential of MC to help identify the effectiveness of training and implement a credit system in VET is not yet utilised as reforms in this field have been suspended. MC has yet to find broader application in the validation of the skills from non-informal and informal learning. For the time being, MC is ahead of reforms in the field of educational system, as far as the competence approach is concerned.

#### **3.1.4 Institutions that offer skills assessments based on the model**

The Employment Agency integrates MC in its work in order to improve the quality of mediation services and to support the cross-border labour mobility of the workforce between Bulgaria and Romania.

BIA experts have developed a module '*Personal Profile of a Job Seeker*', an online tool for the assessment of individuals' competences which is already being implemented by the labour offices. The profiles of the unemployed registered at labour offices describe in detail the individual strengths, acquired knowledge, skills and competencies, as well as the fields of their further development. The profile also assesses behavioural factors of the unemployed, including for counterproductive behaviour, so that job seekers can receive the most appropriate assistance from the labour office.

To stimulate mobility in the cross-border region Bulgaria-Romania<sup>28</sup>, some of the functionalities of MC have been implemented at regional level. Based on a targeted analysis, five economic sectors<sup>29</sup> with 40 positions have been identified as having potential for cross-border labour mobility. Using the e-test for skills assessment, 300 personal profiles of unemployed persons from the Bulgaria-Romania cross-border region have been made and their attitudes to learning new skills have been assessed<sup>30</sup>. The profiles have been used to formulate measures to stimulate cross-border labour mobility.

Teachers at VET and higher educational institutions promote MC's competency models and use them in their curricula for MSc programmes in HRM. They accept MC as a fully legitimate and high-quality training system that is useful in their work<sup>31</sup>.

### **3.2 Quality assurance of the Workforce Competence Assessment System**

MC has been awarded a certificate for its compliance with ISO 9001:2015, which is a high recognition of the quality of its services and products<sup>32</sup>. The competence models and all other products of MC are subject to approval by the relevant SSUs and by the NCAC. Thus, the quality assessment is based on a broad professional validation with clear responsibilities of the bodies that take the decisions.

MC is based on reliable methodologies. The results provided by the system have been tested for validity by BIA experts. The fact that MC targets the sectors and competencies with highest importance for the future development of the Bulgarian economy can be confirmed – there is alignment with numerous policy-related documents and strategies.

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<sup>28</sup> [www.jobmobility.info/en/](http://www.jobmobility.info/en/)

<sup>29</sup> Agriculture, forestry and fishery; processing industry; transport, storage and posts; hotels and restaurants; construction

<sup>30</sup> Information received from EA.

<sup>31</sup> Opinion of an interviewed HRD university professor in the National and World Economy University, Sofia

<sup>32</sup> Registration number A- 167 – QMS15 for the period 21.09.2016 – 30.09.2019.

## **4 Key findings and conclusions**

### **4.1 Success factors and transferability**

MC is a system that is related to a vision for dynamic development of the economy and human potential as a decisive factor for increasing competitiveness. This cause unites the efforts of hundreds of experts in management and professionals in sectors and enterprises. Their involvement allowed the project ideas for MC to become reality. This was a decisive factor for its success and sustainability. Moreover, as their expertise is embedded in the system, it is relevant to their needs and thus to the issues of the skilled workforce for sectors and companies.

MC follows the leading principles of ESCO and European qualification framework. It is comparable to ESCO and also has links to national systems for competence assessment systems in other European countries. As a result, it has been developed in accordance to recent European initiatives, which is another argument for its relevance.

MC is well-focused on direct services to its beneficiaries. However, it also provides products that allow third parties to find modern solutions in their fields of activities and to integrate certain modules of MC in their own practices. Moreover, MC has managed to focus on business-oriented functionalities, particularly human resource management, that can be dynamically adapted to the changing social and economic environment and to level of the development of competence-based labour market in Bulgaria.

MC has the potential to be transferred to the practice of other countries. It is built up on a holistic basis and thus it includes well-structured and coherent functionalities oriented towards national needs, but with a view towards European and global initiatives. The Bulgarian MC system consists of elements, such as sector competence models, competence assessments, training and taxonomies, that can be a source of ideas for policy makers in favour of employment enhancements and education and vocational training reforms.

MC is appropriate for economies where the share of small and medium-sized enterprise predominate. It can be their valuable partner in developing their own competence models and in other human resource activities, particularly if their financial resources and expert capacity is limited.

### **4.2 Challenges and opportunities**

There are a number of challenges to the future development of MC, which are linked to its current deficiencies and the transition to its new status as a state-owned system. Some of the relevant developments of MC in the near future are the following:

- MC is being continuously expanded with new competency models and e-learning courses. It is necessary to ensure expert potential for greater flexibility and adaptability of the system. The tools should be updated, for example, every 6 months, including expanding their scope.
- MC should become more intuitive, so that users with diverse educational levels and ages (including the people at pension age and these in last years of secondary school) can find and use the services of greatest benefit to them.
- The dynamics of modern professions require a constant evolution of the competency-based models. These models are a good management tool needed not only for critical job positions in leading sectors and industries. In this regard, it is appropriate for the Sector Skill Councils to have advisory functions and provide methodological assistance to companies in building/updating particular competence models. Another challenge is to diversify MC tools so that they reflect regional training needs and provide tailor-made courses to meet specific needs of employers.
- There is also a requirement to further expand the e-learning opportunities available within MC so that they cover a broader range of skills. Priority should

be kept on skills and competencies for positions that are agreed as essential for the development of the Bulgarian economy and its competitiveness.

- A social impact assessment of MC has not been performed. If done, its results can provide information about the promising strategies for development of MC as a national system. Such assessment is of particular importance at this current stage of transition. Unfortunately, it is not planned for the time being.
- The future management and organisational structure of MC as a state-owned instrument could follow numerous best practices. A good solution seems to be to keep it unified (as it is now) and not to disrupt the cohesion between its elements. Its future development could be based on framework agreements between key stakeholders: MLSP, MES, National Agency for VET, Employment Agency, BIA and the other social partners. A Coordination Council at MLSP can be established for execution and monitoring of MC, based on a partnership approach. Unfortunately the governance model still is not retained and the risk of some stakeholders not being involved is real.

The most probable opportunities that MC will face as a state system are the following:

- *Integration of MC with a national system for forecasting the skills demanded by employers:* The work on such a national system is ongoing. In 2018 and 2019, the Employment Agency made short-term projections of the knowledge and skills of the labour force sought by employers over the next 12 months and for the next 3-5 years. MC has the capacity to be engaged in such forecasting.
- *Integration of MC in the lifelong VET:* In the near future MC could contribute to validating non-formal and informal learning, applying a credit system. The involvement of employers in the development of MC can be utilised as a blueprint for organising employers' active participation and partnership in adults' training. MC can assist in applying a results-oriented approach towards VET and to organise new syllabi for formal or non-formal learning.
- MC can contribute to the modernisation of vocational training, particularly of CVET for adults, towards e-learning platforms and virtual academies: MC recommends e-learning opportunities and testing of acquired knowledge, an access to training materials and links to other training platforms. The experience gained so far in the development of these functionalities is a good basis for modernisation of vocational training, especially for adults, including internet platforms. This will help in making the VET for adults more attractive and effective to their needs.

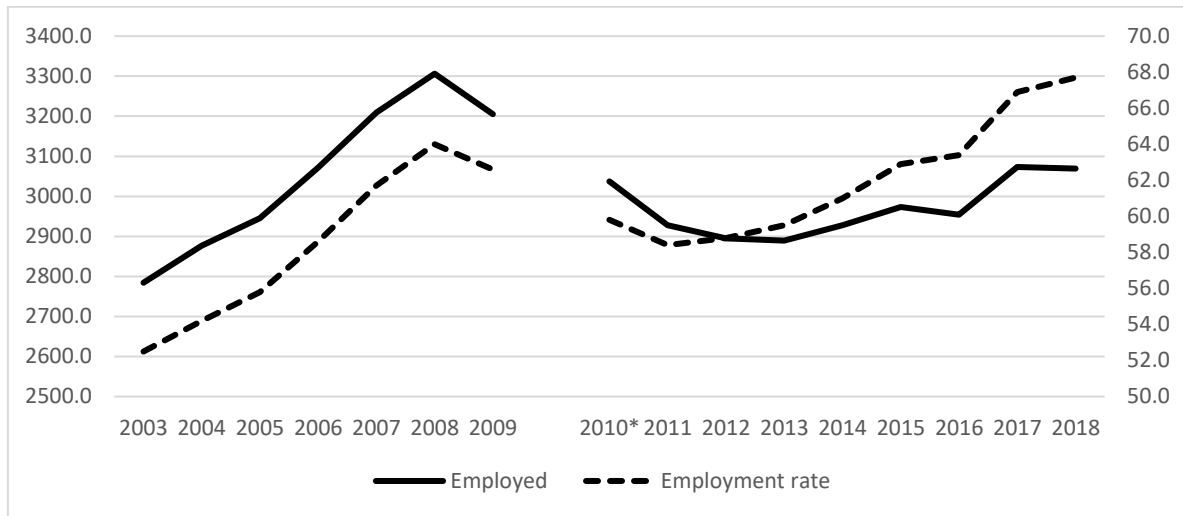
The state administration has received a working competence assessment system, which should be used in a way that preserves its good practices whilst also ensuring continuous updates and improvements on the basis of partnership and holistic approaches. This will strengthen the role of MC for realisation of the vision for dynamic development of a society based on knowledge, ideas and advanced technologies.

## 5 List of references

- Atanasova M., Dimitrova, E. (2018). Active labour market policy in Bulgaria and participation of the population aged 25-64 years in education and training. *Economic Thought*. Issue 3. 3 – 19.
- Atanasova, M. (2018). Employment in Bulgaria as Part of European Labour Market – Trends and Institutional Challenges. *Economic Studies*. Issue 6. p.p. 21 – 29.
- Beleva, I. (2019). Inequalities in education and their impact on the labour market in Bulgaria. *Economic Thought*, Issue 1. P. 3 – 23.
- BIA (2015). Competence Assessment Paper: Necessity, Results, Challenges. [Sofia: BIA]. Available at: [www.competencemap.bg/language/en](http://www.competencemap.bg/language/en) [01.09.2019].
- Cedefop (2019). Continuing vocational training in EU enterprises: developments and challenges ahead. Luxembourg: Publications Office. Cedefop research paper; No 73. Available at: <http://data.europa.eu/doi/10.2801/704583> CEDEFOP, 2019.
- Cedefop (2019). VET in Bulgaria. In: Cedefop (2019). Spotlight on VET – 2018 compilation: vocational education and training systems in Europe. Luxembourg: Publications Office, pp. 16-17. Available at: <http://data.europa.eu/doi/10.2801/009>
- Competency Assessment System – necessity, results, challenges. Final report, 2015. Available at: [en.competencemap.bg](http://en.competencemap.bg)
- European Council (2019). Council Recommendation on Upskilling Pathways: New Opportunities for Adults; Taking stock of implementation measures. Commission staff working document, Brussels. Available at: [https://ec.europa.eu/info/sites/info/files/file\\_import/implementation-report-upskilling-pathways\\_en.pdf](https://ec.europa.eu/info/sites/info/files/file_import/implementation-report-upskilling-pathways_en.pdf)
- Iliev J., Masaldjijska, S. (2017). The development of human capital in business organizations and modern human resources management. *Economic Thought*, Issue 4. p.p. 33 – 46.
- Lukanova, P. (2019). Social innovation in employment policies in Bulgaria. *Economic Thought*, Issue 5, p.p. 3 – 25.
- Loukanova, P. (2019). The Labour Market, in: Jotzov V. ed. *Annual Report 2018: Economic Development and Policies in Bulgaria: Structural imbalances and risks to the economy*. Sofia: Goreks Press. 70-92.
- Loukanova, P. (2018). The Labour Market, in: Jotzov V. ed. *Annual Report 2018: Economic Development and Policies in Bulgaria: Evaluations and Expectations*. Sofia: Goreks Press. 80-105.
- Loukanova P., Tzanov, V. (2015). The Bulgarian labour market policies at the end of the crisis. *Economic Studies*, issue 3. p.p. 3 – 29.
- Human Capital Consortium (2019). *Mid- and long-term forecasts for labour market development in Bulgaria. Factors of labour demand, employment trends, regional and education misbalances (2008 – 2013)*. [Sofia. Trud publication office], p.p. 95 -99. Available at: <https://mlsp.government.bg/ckfinder/userfiles/files/politiki/zaetost/>
- Peycheva M. (2018). Analysis of the Trends in Human Resources Activities and the Necessity of Redesign of the Education. *Economic Studies*, issue 6. p.p. 56 – 65.
- Zareva I., Matev, M. (2017). Challenges and perspective before higher education and science in Bulgaria. *Journal of the Bulgarian Academy of Sciences*. Issue 2, p.p. 11 – 19.
- Vassileva I. (2019). Labour Intensiveness of Economic Growth in Bulgaria: Estimates, Impact of the Global Crisis and Drivers. *Economic Studies*, Issue 3. p.p.22 – 35.

## Annex 1: Tables and figures

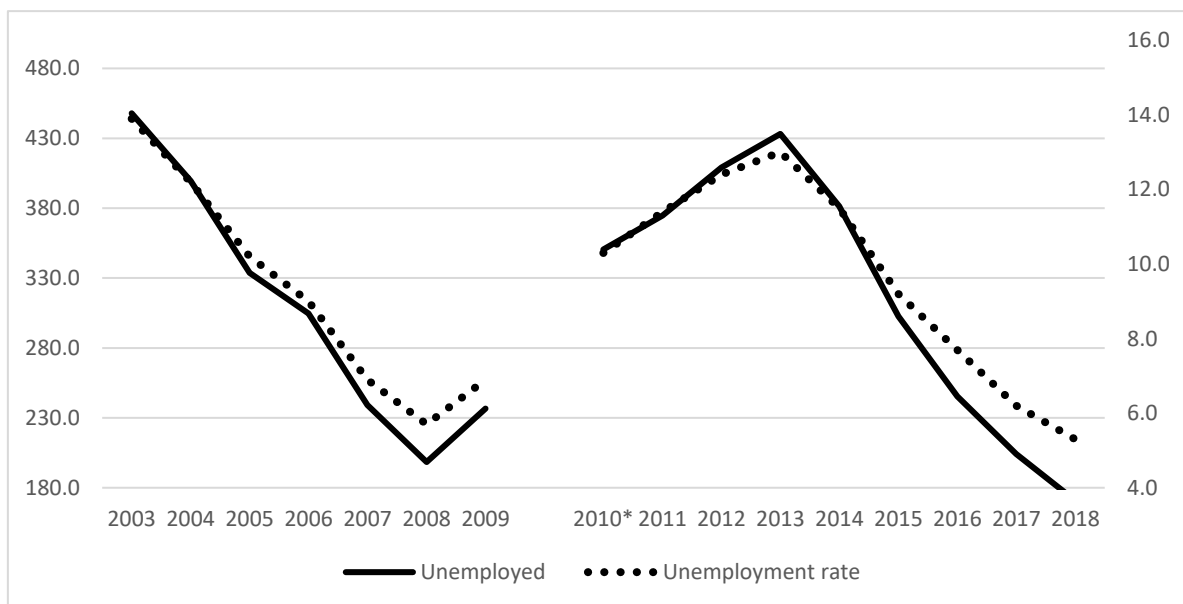
Figure 1. Employed (in thousands) and employment rates (%) for the age group 15 - 64 years



\*2010 – revised data

Source: NSI.

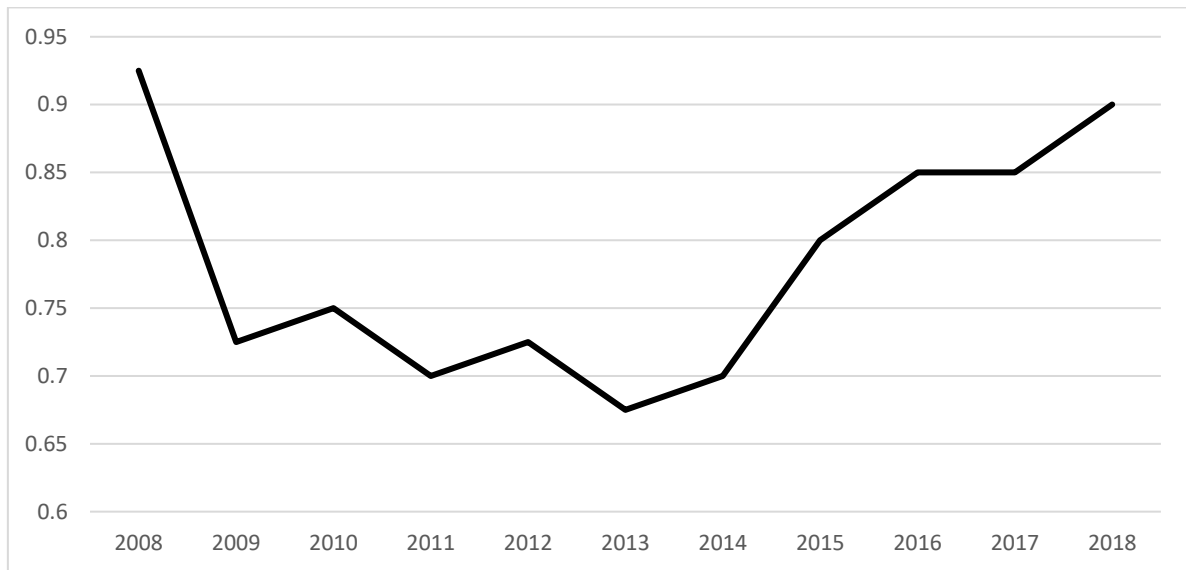
Figure 2. Unemployed (thousands) and unemployment rates for the age group 15 - 64 years



\*2010 – revised data

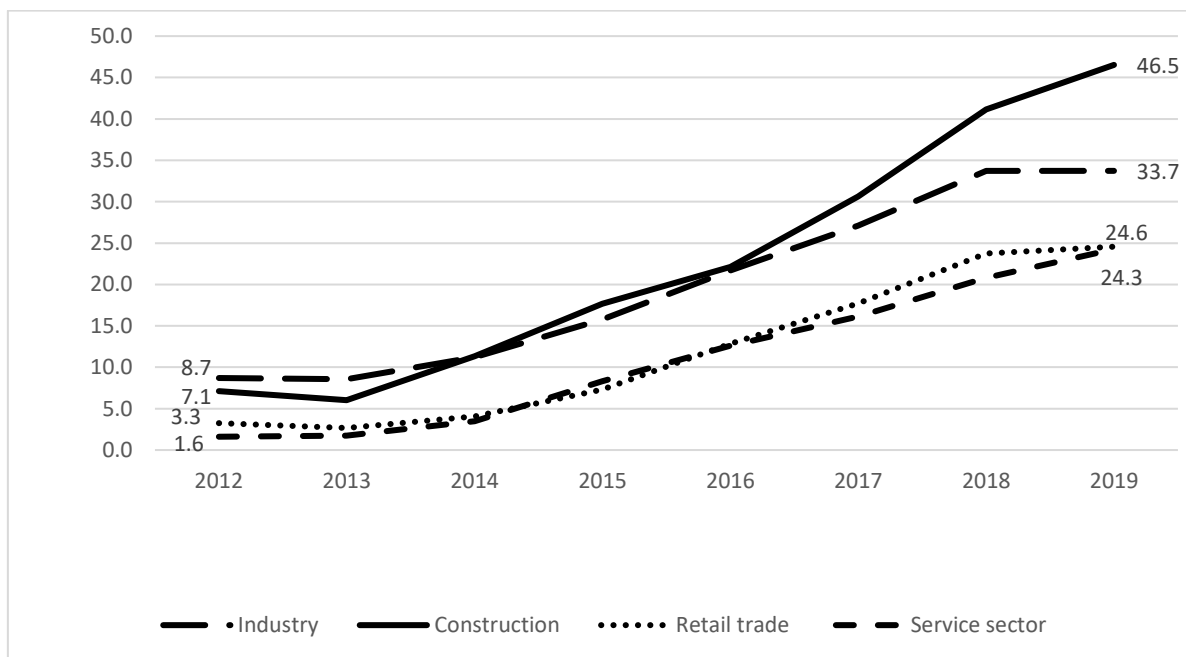
Source: NSI.

Figure 3. Job vacancy rate, %



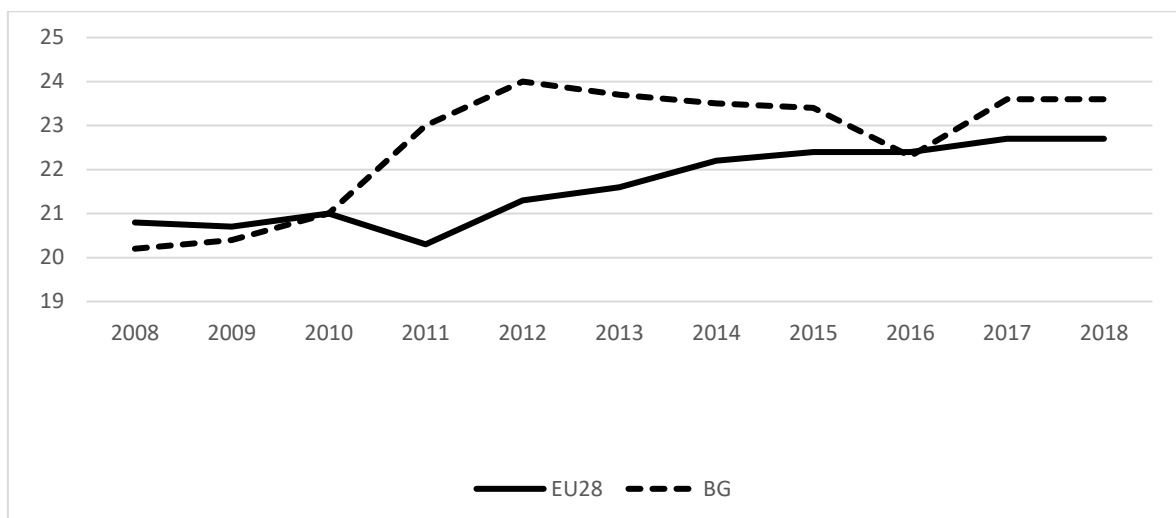
Source: NSI.

Figure 4. Shortage of labour, as a factor limiting the activity of enterprises in industry, construction, retail trade and service sector.



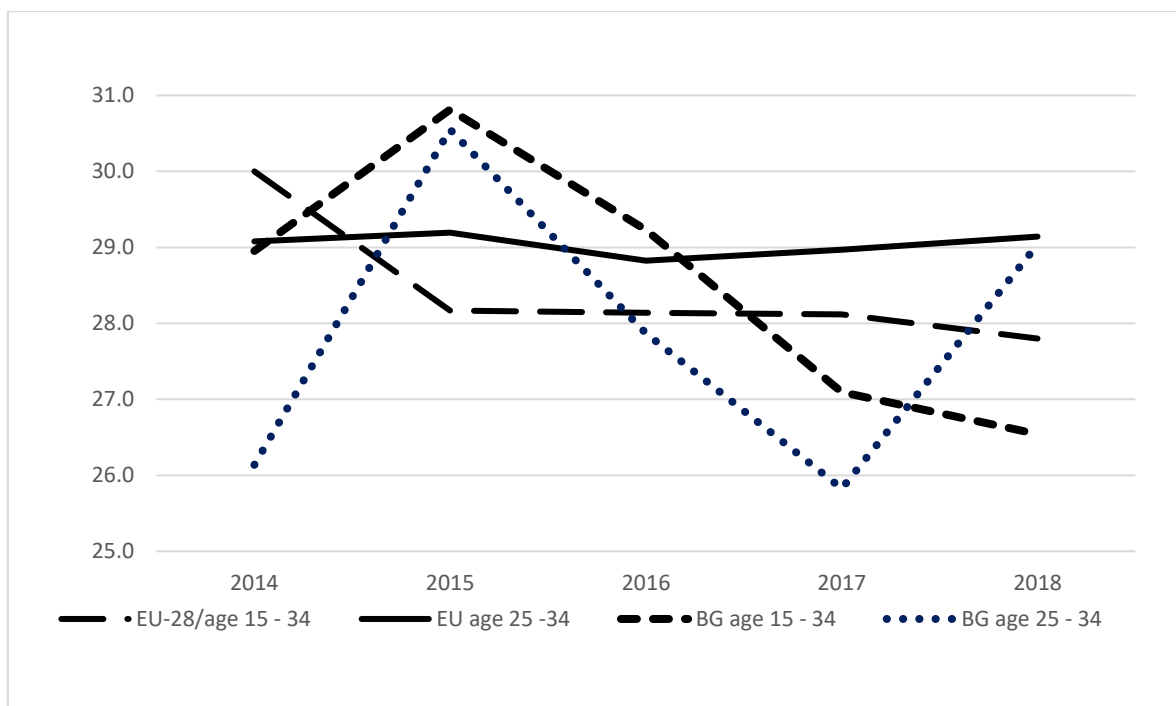
Source: NSI.

Figure 5. Detailed data on over-qualification rate by economic activity for the period 2008 to 2018/ Whole economy (% of people aged 20-64 with tertiary education and working in ISCO 4-9)



Source: <https://ec.europa.eu/eurostat/web/experimental-statistics/skills>

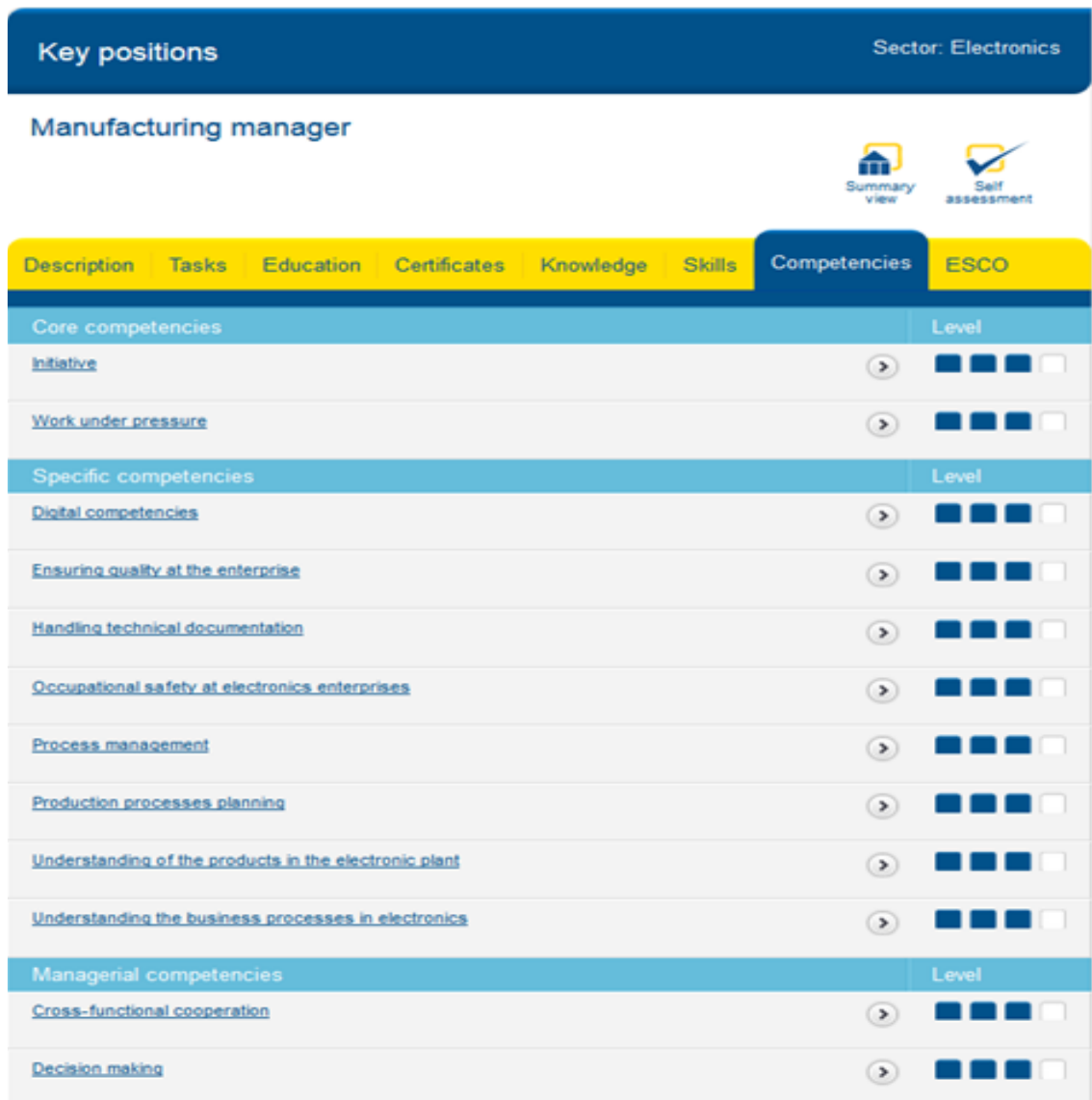
Figure 6. Detailed data on the rate of horizontal skills mismatch by field of education for the period 2014 to 2018.



Source : <https://ec.europa.eu/eurostat/web/experimental-statistics/skills>



Figure 7. Competence framework of a key position



Source: Competency Assessment System – necessity, results, challenges. Final report, 2015. p. 45.

