



## KEY MESSAGES AND PROPOSALS FROM PILOTING THE OSKA PROGRAMME

The Estonian Qualifications Authority carried out, in the pilot round of OSKA<sup>1</sup> (June 2015 – March 2016), a survey on the needs for labour and skills in three sectors: information and communication technology (ICT), economic accounting, forestry and timber industry. The survey sought to answer the question of **how should the training provision in each sector be modified to meet the sector's needs for labour and skills over the next 10 years?**

Sectoral expert panels, bringing together experts from trade associations, employers, educational institutions and the public sector, were established in order to analyse the situation in the sectors and make relevant proposals. The expert panels were requested to assess the impact of future trends and Estonia's strategic development objectives in the possible developments in the sectors over the coming decade; to assess how many workers and which skills are required in the Estonian economy; to assess training provisions and formulate training needs in each sector; to make proposals for actions to meet the training needs.

The following key messages for adapting the educational courses on offer to labour market requirements and to increase the competitiveness of the Estonian economy appeared as a common denominator of the sectors:

- 1. Increasing the workforce numbers generating higher added value.** To that end:
  - reduce school dropout rates; both educational institutions and employers should implement more flexible teaching and working arrangements; to offer career services to support learners at all levels of education;
  - offer curricula that take into account future needs and meet the expectations of professionals in order to encourage experienced professionals to continue their education at the next level;
  - schools should attract more foreign students and different parties should find solutions for their successful entry into the Estonian labour market;
  - make, through cooperation between all parties, technical extra-curricular activities available to children and young people and to contribute to entrepreneurship studies (including promoting enterprise) to ensure the existence of a new generation of highly-skilled workers.
- 2. Employers expect formal education and training to prepare workers who are able to see the 'big picture' and can quickly contribute to the workforce.** To that end:
  - link formal education and training more closely to the acquisition of practical skills, active learning methods and practical training;
  - schools should involve more practitioners as teaching staff;
  - employers should be willing to contribute to the popularisation of their respective sectors, to the development of curricula and to in-service training and retraining of their employees.
- 3. Increasing by 2020, by a factor of 1.5, the number of ICT professionals who are able to create and implement innovative technological solutions.** To that end:
  - at least 70% of all students starting studies in the field of ICT should graduate; instead of increasing the number of students admitted it is necessary to support learners to ensure that they complete their studies;
  - improve the ICT skills of professionals in all walks of life to develop their ability to recognise the possible applications of ICT solutions in their respective fields.
- 4. Abolishing clear distinctions between Bachelors-level study curricula and professional higher education curricula.** To that end:

<sup>1</sup> A system of labour market monitoring and future skills forecasting



- introduce corresponding amendments to the Universities Act, the Institutions of Professional Higher Education Act and the Standard of Higher Education;
- create an opportunity for learners to choose between academic or applied courses in their third year of study at the first stage of tertiary education.

### Proposals from the expert panel on accounting

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**Message 1:** While the demand for accounting personnel performing more simple and routine tasks is decreasing, the need for professionals with a Master's degree in the field of analytics is increasing.

**Objective:** To provide accounting training at different levels of education to the extent of matching the needs of the labour market.

**Actions required:**

- The Ministry of Education and Research (MoER) should reduce the number of study places for accountants in vocational education and consider alternatives to reduce the number of schools providing vocational education in the field of accounting. The role of vocational education institutions as providers of in-service training and retraining in the field of accounting is worth preserving;
- MoER should ensure, in cooperation with universities<sup>2</sup>, by signing performance and activity support agreements that accounting studies are continued at all three levels of higher education (including by increasing the number of Doctorate holders);
- higher education institutions will focus on reducing the number of school dropouts at the Master's level to meet the growing demand for professionals;
- higher educational institutions should provide more opportunities for specialisation in accounting or increase the number of relevant modules in Business and Administration curricula and Masters-level Economics curricula for students with a major in the fields other than Accounting;
- MoER and higher educational institutions should plan study places for the first level of higher education by taking into account the need to increase the provision of applied higher education in the field of accounting;
- The Ministry of Economic Affairs and Communications should prepare forecasts of labour requirements by taking into account that people who have completed only general education<sup>3</sup> will no longer be needed in the field of accounting. In view of the existing division, the following is required: replacing office clerks who have completed general education with those with level-5 vocational education; mid-level specialists with those with higher professional education, and those at the top-professional level with Master's degree holders.

**Message 2:** The scope, complexity and importance of the work of an accounting professional as the provider and interpreter of information required for making (strategic) management decisions (in particular at large enterprises and in the public sector) are increasing.

**Objective:** To ensure that research and learning in the field of accounting go hand in hand. Vocational schools and higher education institutions should develop forward-looking

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<sup>2</sup> According to the administrative agreement for 2013–2015, the Tallinn University of Technology is responsible for the provision, quality and development of teaching activities in the field of Business and Administration studies (<https://www.riigiteataja.ee/akt/130012013004>).

<sup>3</sup> General secondary, basic or lower-level education.



accounting curricula and continuously update the curricula to take into account the rapidly changing environment and development trends<sup>4</sup>.

**Actions required:**

- AEA<sup>5</sup> should initiate supplementing the accounting professionals' professional standards with competencies of increasing importance and which are required due to the changing role of an accounting professional (including, for example, analysis and synthesis, communication, management and cooperation skills as well as the ability to see the big picture, etc.). Vocational schools and higher educational institutions should amend their curricula accordingly and pay greater attention to the teaching and development of such skills.
- higher education institutions should increase the share of subjects and teaching methods related to the development of the skills required for management analysis (data analysis, visualisation and communication) in accounting curricula;
- vocational schools and higher education institutions, public and private-sector organisations and umbrella organisations in the field of accounting (AEA, BoA, IIA, ATA)<sup>6</sup> should collaborate closely (both within Estonia and internationally) to develop curricula, organise internships for teaching staff, invite speakers/teaching staff to Estonia, in the field of research and development, etc. in order to provide up-to-date training that reflects the changes and innovation in the sector;
- companies and umbrella organisations (AEA, BoA, IIA, ATA) should support the analysis of innovations in the sector and their introduction to schools;
- vocational schools and higher educational institutions should support internships for teachers/teaching staff in public and private sector organisations and develop work arrangements conducive to such internships;
- higher education institutions should build the capacity of the academic accounting staff for finding additional funding sources, applying for funding and using the resources;
- EKKA<sup>7</sup> should involve representatives with international experience in the external assessment of the quality of higher education in the field of accounting;
- higher educational institutions should work towards increasing the number of doctoral dissertations defended in the field of accounting.

**Message 3: The need for accounting professionals with the capacity for 'smart contracting', who are able to commission and implement new ICT solutions is increasing. All employees in the sector are expected to be willing to use innovative ICT solutions.**

**Objective:** To ensure that the employees in the sector have the capacity to understand the potential of ICT solutions and to implement them in order to more efficiently achieve the objectives and to perform the tasks of their organisation.

**Actions required:**

- higher education institutions and vocational schools as well as the providers of in-service training and retraining should increase the share of sector-specific<sup>8</sup> ICT knowledge and skills

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<sup>4</sup> Among others, trends such as the increasing need for specialisation, strengthening international cooperation and different legal spaces, integration of law and information technology with accounting as well as heightened expectations of the public regarding the quality and scope of reporting (including environmental protection and social responsibility).

<sup>5</sup> Association of Estonian Accountants

<sup>6</sup> The Association of Estonian Accountants, the Estonian Board of Auditors, the Estonian Institute of Internal Auditors, the Accounting Teachers' Association

<sup>7</sup> The Estonian Quality Agency for Higher and Vocational Education

<sup>8</sup> Sector-specific ICT skills - the focus of the use of information and communication technology is different in different sectors; therefore, adaptations need to be sector-specific.



teaching in accounting curricula, including the knowledge of the opportunities and risks related to the implementation of ICT (e.g. cyber security, data protection);

- The AEA should initiate the integration of sector-specific ICT skills in professional standards;
- vocational schools and higher educational institutions should offer accounting students an opportunity to specialise in technological solutions and ICT students an opportunity to acquire the basics of accounting;

**Message 4: The practical skills of novice accounting professionals are an important indicator of the quality of their studies**

**Objective:** To bring the skills of school graduates/new employees in line with the labour market needs and the requirements of professional standards

**Actions required:**

- public and private sector organisations, higher educational institutions and vocational schools should improve the organisation of practical training in cooperation with the providers of places for apprenticeships and internships: closer cooperation between schools, organisations providing internships and students is needed in order to find places for internship which enable students to acquire a sufficient number of important skills, and to agree on mutual interests and objectives;
- The Ministry of Finance should initiate negotiations with different parties to find targeted funding to cover the costs of the providers of internships (e.g. remuneration of supervisors, support for trainees);
- vocational schools and higher education institutions should use more active learning methods, including problem-based and project-based teaching, and ensure that the organisation of studies supports such methods;
- vocational education and higher educational institutions will include in their curricula so-called real life projects (including group projects);
- vocational schools and higher education institutions should continue the development of the teaching skills of their teaching staff (including practitioners) and assess such skills through performance interviews and attestation;
- vocational schools and higher education institutions should increase the share of practical training in their curricula to take into account the needs, possibilities and trends of the working world;
- public and private sector organisations should provide research problems related to their respective fields of activity and practical training for course and final papers; practitioners should be involved as co-supervisors;
- vocational schools and higher educational institutions, public- and private- sector organisations (AEA, BoA, IIA, ATA) should collaborate to develop and translate up-to-date, comprehensive and terminologically uniform instructional and teaching materials, including workbooks, that meet the needs of different levels of education.

**Message 5: The efficiency and quality of internal and external auditing will be sufficient only if the division of work between the key accounting professions is clear and society is aware of their role and the value they are creating.**

**Objective:** To ensure that the public information space is aware of the value generated by and the career opportunities related to the internal and external auditing professions.

**Actions required:**



- The IIA and BoA should introduce, in collaboration with schools, these professions, their development, study and working opportunities to students and persons contemplating a career change/needing retraining;
- vocational schools and higher educational institutions should provide, in collaboration with the IIA, optional and elective courses introducing the internal auditor's profession and involve recognised internal audit practitioners from public and private sector organisations in teaching;
- the Ministry of Finance should initiate in the auditing Master's Degree curriculum council an analysis of the quality and effectiveness of the implementation of the curriculum in order to ensure that the Master's Programme is preserved.