DISCO

Discovering the Archaeologists of Europe

Discovering the Archaeologists of Estonia 2012-14

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MTÜ Arheopolis and the University of Tartu

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Introduction

"Discovering the Archaeologists of Europe 2014" (hereinafter *DISCO 2014*) is an international project which was carried out to research the labour market and the situation of cross-border mobility of archaeologists in 20 European countries, including Estonia. The general objective of the project was to collect and disseminate information about the employment and professional skills of archaeologists in Europe, to create basis for understanding the current situation of the profession and to provide suggestions about the researchable topics. The project was carried out with support from the Lifelong Learning Programme of the European Union; the research in Estonia was also co-funded by the University of Tartu and MTÜ Arheopolis.

DISCO 2014 is a follow-up project to a similar research carried out in 12 European countries during 2006-2008 and a resulting transnational aggregated report (Aitchison 2009). Unfortunately Estonia did not participate at the preceding research; also, there have been no other earlier projects of similar nature. The issues of employment, training, professional skills and mobility of archaeologists have not been subject to a research in Estonia. Therefore the invitation to DISCO 2014 presented a good opportunity for Estonia to map the employment situation of archaeologists of the country and to identify potential problems. MTÜ Arheopolis as the representative of Estonia in DISCO 2014 project carried out the national research in Estonia and this report is to present the respective research results.

The research originated from the project objectives: the need for promoting the transparency of qualifications and cross-border mobility; determining the barriers of entry into archaeological professions and bottlenecks related to career development; identifying the profile and situation of labour market, including the areas of recruitment, professional skills, training needs and training-related investments; and providing the employers of archaeologists with information which could be helpful for the planning of their activity. The research was carried out in the form of a digital questionnaire and additional interviews. MTÜ Arheopolis invited 121 people performing directly archaeological functions or the support

functions to archaeology to participate in this research. Also, two institutions providing higher education in the field of archaeology in Estonia were included.

Together with the national reports of other participating countries, the research results contained in this report serve as input for the transnational aggregated report. The latter can be used to establish strategies and policies in order to facilitate the development of the more dynamic and competitive profession in the knowledge-based economy of Europe, thereby ensuring sustainable growth and socially secure professional profile. This would allow the positioning of the sector in the market and identifying the skills needed in the particular sector, supporting the establishment of better professional and training strategies, and promoting cross-border mobility through professional standards and the removal of barriers.

The good will and strong sense of cooperation of a very large part of the community of Estonian archaeologists have contributed to the successful completion of this project. We would first like to thank all the 72 archaeologists who responded to the questionnaire and were kindly ready to share and clarify their answers. We would also like to thank the Institute of History and Archaeology of the Faculty of Philosophy of the University of Tartu and the Institute of History of the University of Tallinn for taking part in the research. First and foremost, our sincerest thanks belong to Marge Konsa, Heiki Valk and Erki Russow. We are grateful to the co-funders of the project – the European Commission and the University of Tartu – for their important contribution supporting the preparation of this report. Particularly we would like to thank prof. Valter Lang who has supported our work from the very start and with whose help we managed to resolve the national co-funding of the project. Finally, we express gratitude to York Archaeological Trust and their representative Kenneth Aitchison whose invitation resulted in the involvement of Estonia in DISCO 2014 project. Mr. Aitchison has managed the international team of the project with high level of competence and dedication, sharing kindly his experience of earlier research with all the parties of this project. This has significantly supported the preparation of this report.

Summary of Research Results

Archaeologists

The following conclusions can be drawn from the analysis of the profile of archaeologists.

1) Based on age and gender two generations can be distinguished in Estonian archaeology – the generation of those at the age of 20-39 with the majority of female employees and those at the age of above 40 with the larger share of male employees. According to the research results there were no female respondents at the age of above 50. On the other hand, there are about 1/3 less males than females working in Estonian archaeology. The change of gender proportions during the last decades is related to broader societal developments, including increase in the numbers of female students.

2) The large share of young archaeologists indicates that the discipline of archaeology is relatively popular among university entrants. Augmentation of employees of the field indicates the sustainability and viability of Estonian archaeology. The research did not cover the exact reasons for the choice of study discipline. However, considering the thorough academic track record of the majority of respondents, the start of professional work already next to university studies and the length of their career, we can conclude that generally the decision to study archaeology is informed and goal-directed.

3) The ethnic composition of the employees in Estonian archaeology is quite homogeneous: there are 96% of Estonians, 3% of Russians and 1% of representatives of other nations among the employees. Considering the general ethnic composition of Estonian society (68,7% of Estonians, 24% of Russians) we can conclude that the share of non-Estonians in the employment in archaeology is remarkably low. This means that there is no imported work force in the labour market of Estonian archaeology. The domination of Estonian language in professional literature and research institutions, language barriers and blackout deriving from poor language skills are probably the major obstacles to the integration of non-Estonian employees. The low share of foreigners also results from the small and competitive labour market which favours local qualified employees.

4) The share of employees with special needs in Estonian archaeology and the related awareness are low. In many cases people do not even know whether there are colleagues with special needs in their work place. However, this is not a particularity of the field of archaeology but a

broader societal issue. The employment rate of people with special needs in Estonia is generally low and the readiness of employers to hire such people requires more socio-political and awareness raising support. The specifics of archaeology set their limits too. In Estonian archaeology, people with special needs mainly work at administrative and technical positions.

5) There are two central locations for Estonian archaeologists: the capital Tallinn and the second largest town Tartu. The prevalence of these towns is related to the location of educational institutions, research centres, specialised collections and central state agencies therein. The major employers outside of bigger centres are local municipalities through their local museums. The comparison of the location and status of employers indicates that, regardless the location, the major employer in Estonian archaeology is the state through its different public institutions and agencies.

6) Estonian archaeologists are highly qualified and the majority of them have a degree in Archaeology. Academic degrees and research are valued among Estonian archaeologists. Having a Master's degree or becoming a Doctorate student is a norm rather than an exception. More than half of the respondents were related to university studies at the time of data collection for this research. Many respondents indicated that they had or were in the process of acquiring multiple degrees of higher education. Professional work in parallel to university studies is often the case, ensuring practical knowledge of the field and a smooth access to labour market.

7) In their studies Estonian archaeologists pass at least one education level in Estonia. Thereafter one third of students participate at training or degree studies abroad. Different European countries and universities are preferred; none of the respondents indicated studies outside of Europe. Europe is probably the choice because of better reach, scholarship programmes, inter-university contracts and language skills. Such reasoning is also supported by the data indicating that Estonian archaeologist pursue their education abroad mostly in the UK, Germany, Sweden, Denmark and Finland.

8) The education of employees in Estonian archaeology shows strong trend towards Humanities. On one hand, the studies of Archaeology in Estonia have a focus of a humanistic discipline. On the other hand, the share of employees with education in Natural Sciences is very low. Considering the significant exposure of archaeology to the methods and means of natural sciences and the dependence on them, such trend indicates deficiencies in professional background. Since many technical positions require specified skills and knowledge in these

particular fields, the respective employees need to be trained or the respective services need to be outsourced.

Profiles of Positions

The following conclusions can be drawn from the analysis of the profile of positions.

1) The majority of Estonian archaeologists perform archaeological functions in their work. They are mostly specialists focusing on their specified field of study, half of them being senior specialists. An average employee performing archaeological functions is a female junior specialist at the age of 20-29 with 4,5 years of work experience in the field of archaeology on average, pursuing a Master's or a Doctorate degree next to her work.

2) The positions performing support functions are mainly those at the level of technical staff and specialists. The employees performing support functions to archaeology are mostly females and males at the age of 20-29 with some 2 years of work experience, pursuing a Bachelor's degree next to work.

3) A very large part (79%) of employees in Estonian archaeology work on the basis of employment contracts. The employees performing archaeological functions are employed above 60% more full time than the employees performing support functions. While females work about one-fourth more on the basis of full-time employment contracts in comparison to males, male archaeologists are more involved in project-based activities.

4) The general salary level of the field of archaeology is low, considering the specifics of the field and comparing it to the levels of Estonian labour market. The average monthly gross salary of full-time archaeologists is about 880 euro. The average gross salary of part-time (including project-based) employees is some 10% higher, mostly on the account of specialists working part-time or on project basis outside of research and educational institutions and state agencies. Part-time archaeologists earn higher wages both on the basis of hourly salary rate and adjusted average monthly salary calculations. Respectively, the average monthly gross salary of Estonian archaeologists, considering the average salary levels of both full-time and part-time employees, is about 920 euro. In comparison to the average rate of the country, Estonian archaeologists earn about 3% lower gross salary.

5) Generally, Estonian archaeologists do not receive much supplementary salary. Mostly, supplementary salary is paid to the employees of research / educational institutions and state agencies. The employees of commercial enterprises are paid supplementary salary to a small extent while the employees of municipalities receive it very seldom. The average annual supplementary salary is about 260 euro.

6) When it comes to benefits, the employers of Estonian archaeologists often provide flexible working arrangements, enabling their employees to regulate their own work. Also, employers are very supportive towards the continuation of educational aspirations of their employees: very many archaeologists are entitled to both unpaid and paid study leave. This also somewhat derives from the fact that a large number of archaeologists work for research and educational institutions in which the advancement of education is strongly related to work and the needs of the employer.

Education

The following conclusions can be drawn from the analysis of education of the archaeologists in Estonia.

1) Comparing the graduates of Bachelor studies in Archaeology, the University of Tartu significantly differs from the University of Tallinn. Although it is necessary to take into account the smaller number of enrolments in Tallinn, the share of graduates in comparison to enrolments at the University of Tartu is nevertheless much bigger than at the University of Tallinn. There are no big differences in curricula. Yet, the curriculum of the University of Tallinn contains somewhat more subjects related to urban and historical archaeology. Therefore, a more thorough focus could be put on the study of these fields in the future. Due to numerous rescue excavations there is a realistic need for urban archaeologists on the labour market. By a stronger respective study focus it would be possible to increase the number of enrolments and graduates of Archaeology at the University of Tallinn.

2) The majority of graduates of Bachelor studies at the University of Tartu seek to continue their studies of Archaeology at Master's level, facing tight competition. On the contrary, the situation with Master's level enrolments at the University of Tallinn is somewhat modest. There is very little inter-university mobility and only in one-way direction from Tallinn to Tartu. Many archaeologists are not able to graduate their Master Studies with a nominal time. The major reason for such

development is usually a semester or two of studies abroad, bringing along the postponement of graduation but simultaneously providing the graduate with additional knowledge which significantly increases the professional level of archaeologists entering the labour market or applying for Doctorate studies.

3) The recently started educational reform has significantly decreased the options of young people with academic potential to apply for Doctorate studies because it is not any longer possible to obtain a Doctorate degree in a non-state funded study place. Different from the Bachelor studies of Archaeology where the number of study places was decreased only on the account of non-state funded study places, the Doctorate studies faced a decrease in state-funded study places while the non-state funded study places were totally cancelled. Another problem is that although the enrolment should be based on the ranking of applicants, it is actually the general situation in science which is evaluated and therefore the disciplines which have not had Doctorate students in recent years are often preferred. This means that in case there are many academically capable archaeologists in the faculty throughout years, it is certain that not all of them become accepted for Doctorate studies. Similar to Master studies the ability of archaeologists to graduate their Doctorate studies with a nominal time is problematic; the major reason is heavy work load next to studies.

4) Uncertainty about the perspective of becoming accepted for Doctorate studies was also reflected in the opinion of some archaeologists regarding their educational outlook. Comparing the forecasts of educational institutions with the educational outlook of archaeologists, the research confirms a gap particularly in respect of Doctorate studies. There are more applicants for Doctorate studies than the respective study places at universities. In relation to this the number of Doctorate graduates shall start decreasing in the future.

Supplementary Training

The following conclusions can be drawn from the analysis of professional skills and training needs.

1) More than half of employees receive very little training or no training at all upon recruitment. One reason for this is the sufficient skills of recruits which can be easier objectively evaluated by their employers in advance thanks to the smallness of the community of archaeologists in Estonia. Although employers train those recruited for their very first professional post relatively little in comparison to those hired for their third post, it is important to note that the majority of trained first-time recruits are permanent employees towards whom the employers consider

a long term perspective and ongoing improvement of professional skills in the future course of working.

2) In the course of employment, the employers prefer to train their employees in the form of combining internal and external trainings, whereas the external trainings are often designed as supplementary trainings on some narrow and specific subject. None of the employers train their employees solely on the basis of formal external trainings. This is probably due to the lack of systematic supplementary training programmes covering the whole field of archaeology and the lack of resources. In the light of scarce resources the employers of archaeologists enable their employees to train themselves flexibly and in different forms, e.g. through unofficial external trainings such as supported research work, etc.

3) The employers are more willing to invest in the continuous training of permanent employees than that of temporary employees. The aspect of training and employee development is not unfortunately of sufficient importance in the system of values and internal communication of many employers. In the light of limited resources the employers support the self-development of employees but the application of official training plans, budgets and thorough training activity is complicated. Public sector employers (first and foremost universities) which also serve as the major output for Estonian archaeologists on labour market are most active in the training and development of their employees. Due to the seasonal nature, specialised market and cost of archaeology, private sector employers are unable to contribute to the training of their employees to the similar extent of budgetary institutions.

4) There are no systematic supplementary training programmes for practising archaeologists in Estonia although there is a clear need for continuous development of employees in archaeology as a dynamic discipline. Against this background a systematic professionally approved vocational training programme could be established in Estonia. Such programme could result in a standardised attestation of a certain form (e.g. vocational qualification). For example, the competence and skills of an archaeologist could be evaluated in the course of daily archaeological practice.

The following conclusions can be drawn with regard to shortage of professional skills.

1) Evaluation of the level of professional skills upon recruitment provides no indication that higher professional post would mean better professional skills. Among others, the homogeneous skills of specialists and technical employees reflect the limited opportunities of the labour market of Estonian archaeologists: many of the archaeologists who are skilled enough to work at higher

posts are recruited for technical posts due to the lack of resources and opportunities, in order to ensure their practical involvement at least to some extent.

2) When it comes to conformity of the level of archaeological education and work-related expectations, there are both positive aspects and shortfalls. Archaeologists are mostly in need of practical skills of the profession and formal administrative background. The most important support function which is outsourced by the employers of archaeologists is information technology. The major archaeological functions which are outsourced by the employers are the study and conservation of artefacts and ecofacts. It is important to highlight the internal deficit in relation to destructive research and involvement in it, indicating a need for archaeologists with good fieldwork skills.

The following conclusions can be drawn with regard to professional development opportunities.

1) Estonian archaeologists enter the labour market relatively early and often next to their studies; hence, most likely on the basis of theoretical knowledge rather than earlier practical experience. Although there are some employees in Estonian archaeology without specialised education, it is necessary to have archaeological education to ensure professional development.

2) The labour market of Estonian archaeologists is local, static and small. The market and professional development opportunities are uncertain and rather unpredictable because archaeology depends too much on project-based financing. The number of employers offering permanent positions is limited and there are not enough professional jobs or possibilities of career development for qualified archaeologists in Estonia. More than half of the respondents indicated very few or no career opportunities at their current place of employment. The weaknesses of their employer organisation are considered the major obstacles to career development: for example, the employer's organisational structure is too inflexible, there are no suitable posts and rotation possibilities, and there is prejudice. While temporary employees consider the lack of professional skills as their major obstacle, the career development of permanent employees is mainly hindered by problems related to the employers' organisational structure.

3) In short term the career outlook of Estonian archaeologists is rather static and cautious. However, in long term the outlook is much more dynamic and venturous (both in terms of changes in job location and position). From the perspective of the next five years there is a clear reflection of employees to improve their career and achieve professional posts at higher levels. Managers are the most static category of staff. Their major alternative of career development

would be self-employment. However, in the long run this option has been chosen only by one manager-level archaeologist. The most dynamic category of staff with regard to career development is specialist-level archaeologists, whereas development is seen mostly as a vertical change at their current place of employment or at some other employer. The specialist-level employees are also most confident about their career opportunities outside of Estonia.

4) Estonian archaeologists are very little enterprising; the specialist-level archaeologists do not even consider self-employment as a career alternative. There are quite different entrepreneurship opportunities in archaeology, including the combination of the field with creative industries. The increased enterprisingness of archaeologists would make their labour market more flexible and the development of creative industries on the basis of archaeology could be subject to structural support financing from the state/EU resources.

1. Methodology

Introduction

This research was carried out in the form of a questionnaire in three parts. Two first parts of it were distributed as a link with electronic questionnaire to a previously identified mailing list of recipients. The third part which was designed only for educational and research institutions, was filled in by the two universities where archaeologists are educated and trained in Estonia. The mailing list included factually all practising archaeologists and archaeologists performing support functions to archaeology in Estonia. Such research model was chosen because Estonia is a very small country with a small local archaeological community which has close internal contacts. Therefore, direct contacting of archaeologists in the course of the research would enable to reach presumably all the people employed within the profession. This would ensure thorough personalized input, often with supplementary comments, instead of collecting broader information of more general nature from the employers of archaeologists. For this reason the statistical result on the basis of the chosen methodology would provide the best evaluation of the profession as a whole.

Questionnaire

A questionnaire in three parts was prepared as a basis for data collection (the questionnaire with a cover letter presented in Annex 1). The first two parts of the questionnaire were targeted to the people involved in Estonian archaeology. The first part titled “The Employee” had six major sub-parts which aimed at the mapping of personal, employment and educational parameters of archaeologists. The second part titled “The Organisation” aimed at the collecting of data about the employers of Estonian archaeologists, seeking answers to questions in respect of the employer organisation, employment relations, employee rights and benefits, training and development opportunities and shortfalls. The target group of the third part of the questionnaire was educational and research institutions which train archaeologists in Estonia. The questions focused on the identification of current status and development perspective of the degree-level training of archaeologists in order to gain overview about the proportions of potential qualified archaeologists and the demand of the sector. For the sake of uniformity of the analysis, the respondents were asked to base themselves on the data as at 1 January 2013.

Respondents

The first two parts of the questionnaire were targeted to the employees in Estonian archaeology whose names and contact details were mapped by the project team with an aim to include all the employees performing archaeological functions and support functions to archaeology in Estonia. On the basis of the two first parts of the questionnaire, a respective electronic version with an e-mail link was created and distributed to 121 people in total. As a result, 72 Estonian archaeologists filled in the questionnaire. To gain contact details of the target group, the project team based themselves mainly on personal contacts. Such approach proved to be efficient thanks to the smallness of Estonian archaeological community. Also, in mapping the contact details the project team received help from the archaeologists working at the universities of Tartu and Tallinn. The third part of the questionnaire was filled in by the two and only universities which provide degree-level training to archaeologists in Estonia: the University of Tartu and the University of Tallinn, more precisely the Institute of History and Archaeology of the Faculty of Philosophy of the University of Tartu, which was represented by Marge Konsa, and the Institute of History of the University of Tallinn, which was represented by Erki Russow.

Data Collection and Responses

The project team started preparing the questionnaire in parallel to the mapping of target group and the collection of contact details in the beginning months of the research project. The questionnaire and its electronic version became ready for testing in March 2013. Thereafter the project team started data collection. From March to May 2013 the questionnaire link together with a cover letter (e-mail) was distributed to the identified respondents and the related inquiries of the respondents were addressed. The project team regularly checked the incoming electronic answers and data. The respondents, who did not submit their answers by predefined time, received a reminder e-mail to encourage them to fill in the questionnaire.

The distribution of the questionnaire was handled by all project team members according to their separate task lists and therefore a single deadline for filling in the questionnaire was not set. However, it was agreed that the electronic answers should be received by the beginning of summer 2013. Respectively, each member of the project team determined her own deadline for the respondents in her contact list. Since the period from the middle of June until the end of summer is traditionally the most active working season for Estonian archaeologists and there is very limited time for participating at other projects besides excavations, the distribution of the questionnaire and the collection of data

were planned for spring season. The aim was to have most of the data collected and ready for processing by the end of June 2013. On some occasions the project team contacted the identified respondents also in the form of face-to-face conversations or by phone, in case the respondents had not provided their electronic answers or it seemed necessary to specifically explain the importance of the project to particular respondents.

In parallel to monitoring the provision of answers, the project team also carried out the preliminary data analysis and contacted some respondents by e-mail or phone, when necessary, in order to clarify their electronic answers. Since the community of Estonian archaeologists is small, the project team was able to receive quite numerous answers of good quality on the basis of personal contacts. The project team considered oral communication very important not only for increasing the number of responses but also for explaining the objectives of the project to the best possible extent and better understanding the attitude of the respondents towards the project.

Altogether 72 fully completed electronic forms were received back from the respondents which accounts for 60% of all distributed questionnaires. The questionnaires were distributed only electronically, no paper-based forms were used. Some electronic forms were initially completed only partially, i.e. there was at least one mandatory question unanswered in the form and therefore the electronic system did not allow submitting the form. On many such occasions the contacting of the respective respondents and clarification of the questionnaire eventually led to the full completion of the forms. 21 forms remained partially completed. Such forms were considered unanswered and the data presented in them could not be used in the analysis.

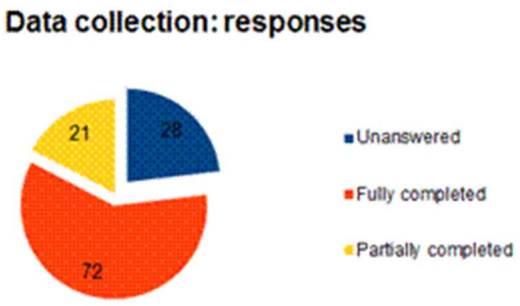


Figure 1 - Electronic answers

No specialised software was used to process the received data. The project team prepared an Excel-based data base into which the data from all electronic forms were inserted. The data of the two first parts of the questionnaire were processed in the form of a large single data base while the data

received from the two educational and research institutions were processed in a separate form. The numerical outcome of the research is presented in this report mostly as a percentage[1]. In addition to questions with quantitative contents, the questionnaire also contained many possibilities for adding qualitative free-form information. The respondents were quite open and willing to provide free-form answers. The qualitative data – mostly additional comments and explanations – were gathered into a separate information block in the course of data analysis.

In the analysis of salary levels the following methodology was used. Since the values of salary levels are divided into intervals, a frequency table was prepared and the end points of the interval scale were calculated for the calculation of average hourly wages. Thereafter the means of the results were found. The means of interval scale of the hourly wages were multiplied by 168 working hours in order to calculate monthly wages. To calculate the general average result separately for each indicator, all interval values of the particular indicator were summed up and divided by the frequency of the intervals. Taking into account the fact that the last interval has no ceiling, a specialised upper limit was set considering the contents of this research. The value of the maximum monthly gross salary was set at 1700 euro on the basis of information collected in the course of earlier individual conversations with the target group.

Confidentiality

The research results are presented anonymously in this report although all respondents were asked to provide their names and contact details. This was first and foremost necessary for ensuring the data quality and helping clarify the answers, where necessary. Also, this was helpful for receiving more fully completed electronic forms. For example, some forms were completed only partially but the project team contacted the respective respondent, if his/her personal data had been inserted into the half-completed form, and explained the questionnaire. Such communication led to the completion of many initially half-completed forms.

Although the data collection was not anonymous, the principle of confidentiality was applied in the whole course of the research. In order to ensure the participation of a possibly large share of the target group in the completion of the questionnaire and to obtain maximally open and comprehensive data, the strict confidentiality with regard to all respondents was applied in all phases of the project. The ensuring of confidentiality was achieved mostly by the following activities:

1 As a percentage the data are presented without decimal points, rounded to full percentage.

- the members of the project team inserted all electronic responses into a password-protected database which can be accessed only by the project team;
- the report or any of its annexes does not identify the names of the archaeologists who participated at the research or the names of their employer organisations;
- the quotes of the respondents are presented as anonymous comments in this report;
- the electronic forms have been saved and will be stored digitally in a password-protected safe environment.

2. Archaeologists

Age and Gender

In the course of the research the age and gender composition of the employees in Estonian archaeology was studied. The results indicate that Estonian archaeologists are relatively young. 44% of the respondents indicated their age between 20-29 years and 31% of the respondents indicated their age between 30-39 years. Only a quarter of the respondents were more than 40 years old, whereas there were only 3% of those at the age of above 60 years. The result could be somewhat influenced by the passiveness of the older generation in responding to the questionnaire. However, such research results match the similar research conclusions from other European countries (Aitchison 2009). Based on the age indicators of employees, Estonian archaeological community is sustainable and viable. The large share of archaeologists at the age of below 30 years indicates also the interest of university applicants in the discipline of Archaeology.

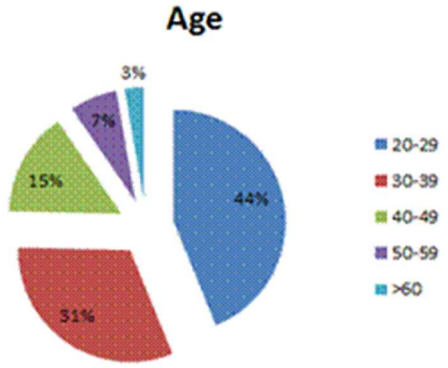


Figure 2 - The age of employees

Gender	20-29 years	30-39 years	40-49 years	50-59 years	60 + years
Female	31%	17%	11%	0	0
Male	13%	15%	4%	6%	3%

Table 1 - The gender of employees in archaeology by age groups

According to the research results there are more women (60%) than men (40%) employed in Estonian archaeology. The difference of gender proportions between different age groups is noticeable. In the age group of 20–29 years, there are about twice more women (32%) than men (13%). In the age group of 30–39 years, the gender composition is more homogeneous – there are 17% of women and 15% of

men. The share of women is bigger also in the age group of 40–49 years: there are 11% of women and 4% of men. On the other hand, there were no female respondents at the age group of 50 years and older. The table above indicates a clear trend – the share of women in archaeology has increased in the last decades. Partially it is related to the similar changes in higher education. The number of female students at the universities of Estonia exceeds the number of male students and according to the national Board of Statistics[2] twice more women than men graduated from universities in 2012. Hence, every year more women than men begin to study archaeology. The reasons why there are just few women at the age group of 40 years and older can be only guessed. In any case it is possible to distinguish between two different generations.

Nationality

To describe the nationality composition of the employees in Estonian archaeology, the respondents were asked to define their nationality and provide estimation of the number of foreign employees at their employer. The results indicate that 96% of the respondents identify themselves as Estonians. Only 3% of the respondents identify themselves as Russians and 1% is of other nationalities. Considering the fact that according to the census carried out in 2011 there are in total 192 nationalities represented among the inhabitants of Estonia (68,7 % of them Estonians and 24,8% of them Russians[3]), such homogeneous nationality composition of Estonian archaeologists is surprising. To some extent it can be explained by the dominant position of Estonian language in professional literature, degree studies and research institutions. Poor skills of Estonian language might hinder the people of other nationalities to obtain qualification, work and receive the discipline-related information in Estonia.

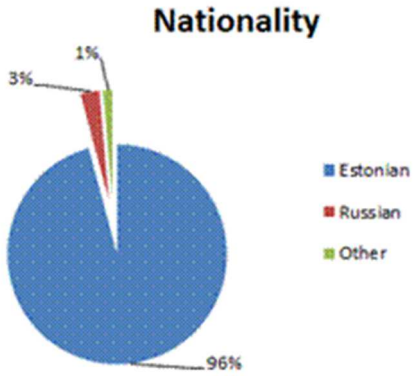


Figure 3 – The nationality of employees in archaeology

2 Statistikaamet. Statistika andmebaas. Available at http://pub.stat.ee/px-web.2001/Database/Sotsiaalelu/05Haridus/10Kergharidus/10Kergharidus.asp (in Estonian) (15.04.2014).
3 Statistikaamet. Rahvaloenduse tulemused. Available at http://www.stat.ee/rel2011 (in Estonian) (15.04.2014).

The described nationality composition also means that there is practically no import of employees in Estonian archaeology. We can only guess whether in addition to language barriers it also results from other reasons such as the lack of need for imported employees, little attractiveness of Estonian employers, small labour market, salary levels and so on. One of the possible reasons can also be the focus of educational and research institutions mostly on local issues and regions which are not always internationally interesting.

Employees with Special Needs

In the course of the research the situation of employees with special needs in Estonian archaeology was studied. For this purpose the respondents provided estimations about the number of employees with special needs at their place of employment. The results indicate that most of the respondents either did not have the respective information (47%) or there were no employees with special needs working at their place of employment (45%). Only 8% of the respondents identified that they had colleague(s) with special needs. The employers of the identified cases were divided as follows: 33% had a local municipality (regional museum) as an employer, 33% had a state (state museum) as an employer and 17% had a private company as an employer. On one occasion, the employer was a foreign research institution.

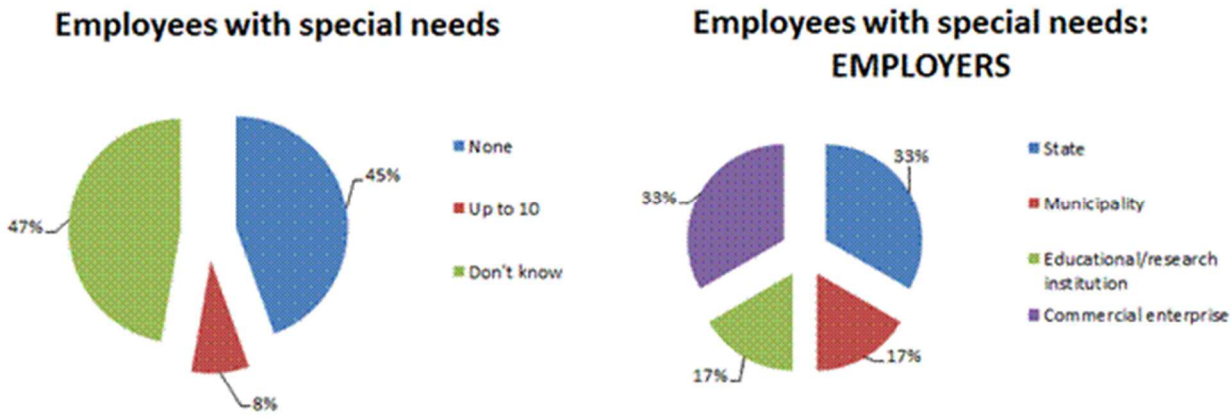


Figure 4 - The share of employees with special needs

The limited employment of people with special needs in archaeology derives from different factors. On one hand, the employment of people with special needs in Estonia is a wider issue concerning all labour market sectors because there are no traditions, social and practical readiness to hire an employee who has special needs. Also, the large share of the respondents, who were not able to provide estimations of whether there were employees with special needs at their place of

employment, marks the lack of experience with people with special needs and low internal awareness. On the other hand, the specifics of archaeology as a discipline (e.g. strong focus on fieldwork, physical activity and movement on terrain) narrow the limits to involve people with special needs in archaeology. The research results do not provide exact information about the posts of employees with special needs in archaeology. However, the nature of their employers indicates technical or administrative indoor functions.

Geographical Location of Employees

In the course of the research the geographical location and regions of activity of the employees in Estonian archaeology were mapped. For this purpose the respondents were asked to indicate the location of their employers and their major region of work. The results show that there are two central locations for Estonian archaeologists: Tartu and Tallinn. About 47% of the respondents indicated that their employer is located in Tartu while 41,5 % of the employers marked Tallinn as the location of their employer. On a few occasions the counties surrounding the central locations – Harju County surrounding Tallinn (3%) and Tartu County surrounding Tartu (3%) – were indicated as the location of the employer. Only 1,5 % of the respondents noted that their employer is located further away from the central locations, in Pärnu County. The existence of two dominant locations is also confirmed by the analysis of the activity locations of Estonian archaeologists. Most of the respondents indicated Tartu (49%) and Tallinn (28%) as the location of their work. 13% of the respondents indicated that their work covers all of Estonia while 3% noted that they mainly work in Harju County, 3% in Lääne County, 1% in Southern and Eastern Estonia, and 1% in Pärnu County. Only 4% of the respondents work mainly outside of Estonia. This allows the conclusion that the labour market of Estonian archaeologists is geographically limited and static, employment places are generally divided between two central locations and their surrounding areas.

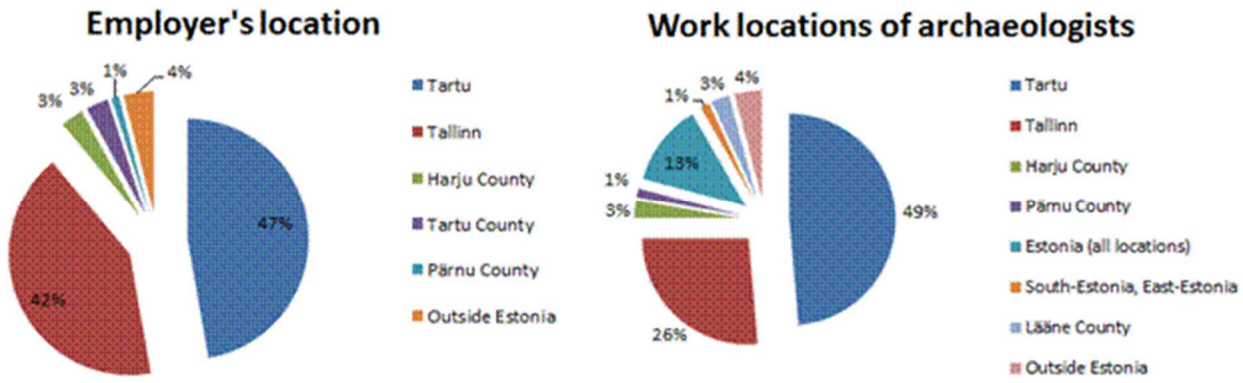


Figure 5 - The geographical location of employers and locations of work

In order to understand the prevalence of the two central locations it is necessary to compare the status of employers and their location. According to the research results about 60% of the respondents work in a research and educational institution, 39,5% of them in Tartu or Tartu county and 16,5% of them in Tallinn or Harju county. These relatively high shares can be directly explained by the fact that the only two universities, where one can study archaeology, are located in Tartu and Tallinn. Additionally, both universities have research centres and archaeological collections which provide work for employees performing archaeological and support functions. A noticeable share of the respondents (22%) is employed in different state structures in Tallinn because many administrative posts and state-administered institutions, including the Estonian History Museum and the National Heritage Board, are located in the capital. In the second largest town Tartu, there are only 3% of the respondents directly employed in state institutions. Other important employers are the local municipalities which administer local museums. About 3% of the respondents work for a local municipality in Tartu and about 1,5% of the respondents work for a local municipality in Tallinn.

Employer's location	Tartu	Tallinn	Harju County	Tartu County	Pärnu County	Outside Estonia
	47%	**41,5%**	**3%**	**3%**	**1,5%**	**4%**
Employer's status						
Research and educational institution	38%	15%	1,5%	1,5%	1,5%	4%
State	1%	22%	0%	0%	0%	0%
Municipality	3%	1,5%	0%	0%	0%	0%
Commercial enterprise	4%	3%	1,5%	0%	0%	0%
Freelancer	0%	0%	0%	0%	0%	0%
Other	1%	0%	0%	1,5%	0%	0%

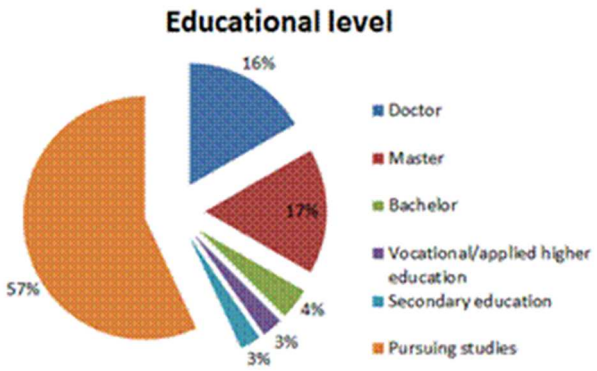
Table 2 - Comparison of the status and location of employers

We can conclude that the major employer in Estonian archaeology is the state through its different public institutions and agencies. Since most of the Estonian research and educational institutions and museums also have a status of a legal person in public law, there are about 89% of the respondents in total employed by a budgetary institution of public sector. Only 8,5% of the respondents work in private sector (4% of them in Tartu and 3% of them in Tallinn).

Professional Skills

The results of the research make it possible to analyse the educational level and background of the employees in Estonian archaeology. Also, it is possible to identify the characteristics of education – how many employees have studied outside of Estonia and which are the most popular target countries for studying archaeology. The collected information allows the conclusion that the employees in Estonian archaeology mostly have higher education. Only a few respondents had secondary education or vocational/applied higher education – respectively 3% % of the respondents on both occasions. Of those with degree-level higher education, there were 4% of the respondents with a completed Bachelor's degree, 17% of the respondents with a completed Master's degree and 16% of the respondents with a completed Doctorate degree (all without any further continuation of their studies). More than half of the respondents (57%) were in the middle of their university studies at the time of completion of the questionnaire (17% of them pursuing their Bachelor studies, 41% pursuing Master studies and 42% pursuing Doctorate studies).

The analysis of the educational background of the respondents shows that a dominant majority (90%) have graduated from a university with a degree in Archaeology. Of those, 9% have studied (or are studying) Semiotics, Information Technology, Law, Social Sciences, Anthropology or History in addition to Archaeology. 2% of the respondents had a degree in Biology and 2% of the respondents had studied Arts. 1% of the respondents indicated that their field of specialisation was Conservation. Only 4% marked no specialisation.



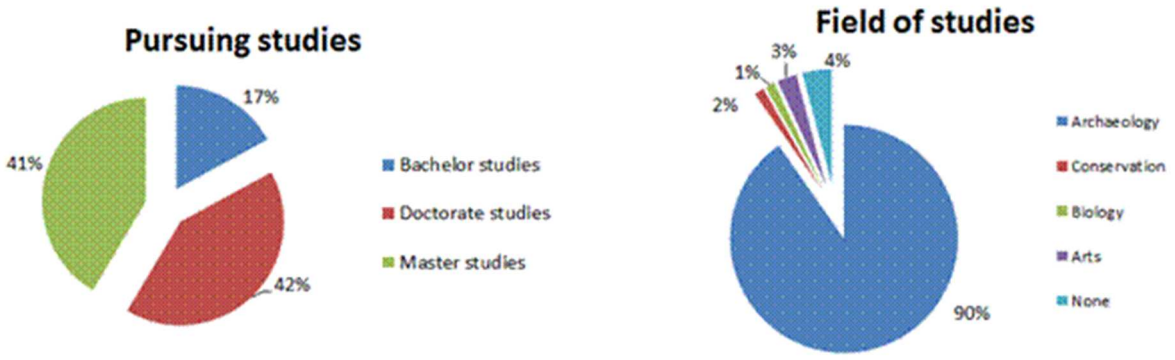


Figure 6 - Educational level and studies

Almost all the respondents (99%) had obtained their degree in Estonia; only 1% had not attended a university in Estonia. The research results do not specify at which educational degree level the local universities have been preferred. However, they do indicate that 35% of the respondents have been abroad for educational purposes (either for degree-level studying or supplementary training) in addition to their studies in Estonia. Herein it would be appropriate to address the preferences of Estonian archaeologists in the choice of foreign universities and the factors which may influence their choice. The most popular academic destination is the United Kingdom with 23% of the respondents having studied there at some point of time. The major advantages of the UK educational and research institutions are the English-language studies, broad choice of study programmes and universities. The next popular destination is Germany (17%) which is usually preferred due to language and traditional academic relations with Estonian universities. Equally 15% of the respondents have studied in Sweden and in Denmark, and 12% of the respondents have studied in Finland – i.e. in the countries related to Estonia through their geographical location and the closeness of academic research topics. Estonian archaeologists have also studied in such countries as the Netherlands, Italy, Lithuania, France, Belgium and Iceland. None of the respondents have studied outside of Europe.

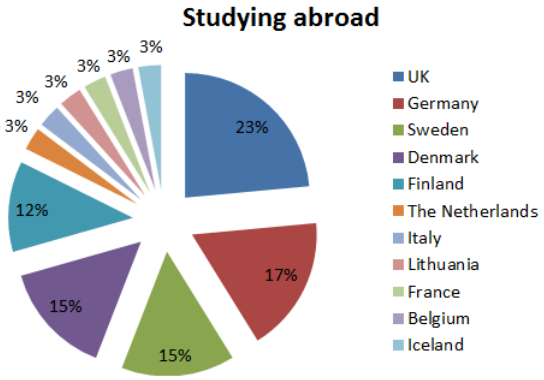


Figure 7 - Studies abroad

Thus, the research results indicate the high qualification of the employees in Estonian archaeology. On one hand, education is valued and having a Master's degree or becoming a Doctorate student is a norm rather than an exception. At least one educational level is completed in Estonia; additionally, one third of students attend some European universities for supplementary training or the next degree level. The results do not specify the specialisation or study focus abroad. On the other hand, the employees in Estonian archaeology have a quite homogeneous educational background – their educational preferences are dominated by humanistic and social disciplines; the share of employees with education in Natural Sciences is very low. Considering the interdisciplinary nature of Archaeology and broad specifics, such trend is surprising. Many support functions and technical posts of the field require knowledge and skills particularly in science. The lack of employees with necessary educational background would mean supplementary training which consumes the time and resources of both the employer and employees. Also, this would mean shortfalls in work performance before achieving the necessary level of competence. Yet, the fact that there are no foreign employees on the labour market of Estonian archaeologists indicates that the employers prefer to train local employees or outsourcing a respective service to importing a foreign specialist for employment.

Work Experience

To analyse the career options of the employees in Estonian archaeology the respondents were asked to indicate how many years in total they have worked in posts performing archaeological functions or the support functions to archaeology. Figure 8 shows that only 4% of the respondents have worked in the field of archaeology less than a year. 17% of the respondents have worked in the field 1-3 years and about 17% of the respondents have the respective work experience of 3-5 years. 22% of the respondents have been involved in archaeology 5-10 years and 19% of the respondents have worked in the field 10-20 years. Those archaeologists with a career in the field of more than 20 years accounted for 21% of the respondents. Comparing the length of career (more than 62% of the respondents have worked in the field for more than 10 years) with the age of the respondents (72% of the respondents are 20-39 years old) we can conclude that Estonian archaeological community is young but professionally skilled. Mostly, professional work is done in parallel to studies and the labour market is entered relatively early.

Figure 8 - Work experience in archaeology

Work experience at current place of employment						
	Less than 1 year	**1-3 years**	**3-5 years**	**5-10 years**	**10-20 years**	**More than 20 years**
	17%	23%	15%	17%	17%	11%
Full career						
Less than 1 year	4%	0%	0%	0%	0%	0%
1-3 years	3%	13%	1%	0%	0%	0%
3-5 years	3%	5%	8%	0%	0%	0%
5-10 years	4%	1%	6%	11%	0%	0%
10-20 years	3%	1%	0%	6%	10%	0%
More than 20 years	0	3%	0%	0%	7%	11%

Table 3 - The length of career and current place of employment

The comparison of full career of the respondents with their work experience at their current place of employment provides an indication about the dynamics of the labour market. The percentage rates presented in the above table indicate a static and conservative labour market. Generally people stay at the same place of employment for a long period of time. The employees who have worked at only one employer during their career as an archaeologist dominate in every range of career length. For example, more than half of the archaeologists with work experience of 3-5 years (in total 17% of the respondents) and about half of the archaeologists with work experience of 5-10 years (in total 22% of the respondents) have worked at their current place of employment during their whole career. The table also reflects the following rule: the longer the work experience, the more conservative and static employee on the labour market.

	Technical employee	Junior specialist	Senior specialist	Mid-level manager	Top-level manager	Other
	27%	28%	30%	8%	5%	2%
Full career						
Less than 1 year	4%	0%	0%	0%	0%	0%
1-3 years	7%	6%	2%	3%	0%	0%
3-5 years	7%	7%	1,5%	0%	1%	0%
5-10 years	1,5%	11%	8%	0%	0%	1%
10-20 years	3%	3%	13%	1%	0%	0%
More than 20 years	4%	1%	6%	4%	4%	1%
Work experience at current place of employment						
Less than 1 year	10%	7%	0%	0%	0%	0%
1-3 years	8%	10%	1,5%	1%	1%	1%
3-5 years	4%	4%	6%	1%	0%	0%
5-10 years	0%	6%	10%	0%	0%	1%
10-20 years	1,5%	1,5%	8%	3%	3%	0%
More than 20 years	3%	0%	4%	3%	1%	0%

Table 4 - Comparison of work experience and positions

In this light one could wonder whether the little mobility on the labour market reflects employee satisfaction and internal career options. Which are career perspectives and time dimensions of career in Estonian archaeology? Partially these questions can be answered by comparing the length of full career or work experience of the respondents at their current place of employment with their work position. According to the research results, 27% of the respondents are technical employees of whom a large share (18%) has up to 5 years of work experience in archaeology. 28% of the respondents are junior specialists with work experience ranging from 1 to 10 years. 30% of the respondents work in the position of a senior specialist which usually means work experience of 5-20 years. 13% of the respondents work as managers, usually assuming professional work experience of 10-20 years. This allows the conclusion that vertical career development in Estonian archaeology is a time-consuming process. Many capable employees are to work as technical employees or junior specialists regardless their appropriate education and academic degrees. Career development and rotation are limited by the small number of jobs on the market and tight competition. The share of managers in archaeology is noticeably little, reflecting also the modest part of private sector employees in archaeology. It seems that becoming self-employed/an entrepreneur and thereby enhancing the labour market of archaeologists has not been much of an issue.

3. Profiles of Positions

Positions

In the course of the research the characteristics of the positions and the employment structure of Estonian archaeologists were identified. 72% of the respondents perform directly archaeological functions as their job duties. Examining the data of these employees one can conclude that mostly they are specialists focusing on their specific field of study (65% of archaeologists) with more than half of them (53%) being senior specialists. The majority of employees performing archaeological functions are female (63%) although in this context it should be noted that according to the research results women also dominate in Estonian archaeology as a whole. An average employee performing archaeological functions is a female junior specialist at the age of 20-29 (15% of the respondents) with 4,5 years of work experience in the field of archaeology on average, pursuing a Master's or a Doctorate degree next to her work.

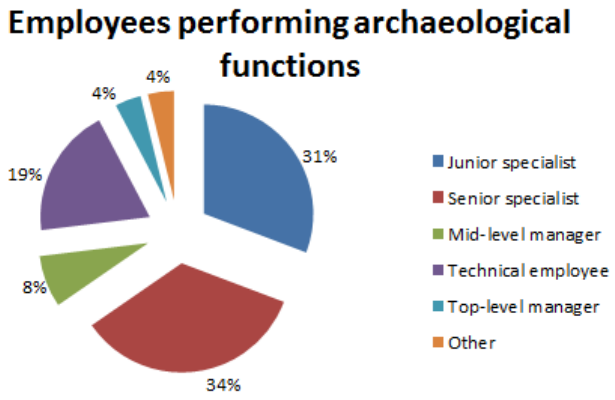


Figure 9 - Archaeological functions

28% of the respondents perform support functions to archaeology as their job duties. Mostly, such posts are those at the level of technical staff (45% of the employees performing support functions) and specialists (35%). Managerial employees perform the least support functions, regardless their position as a mid-level or top-level manager. The gender-based division reflects the equal share of men and women in the positions of support functions. The employees performing support functions to Estonian archaeology are mostly females and males at the age of 20-29 with some 2 years of work experience. The work experience of an average employee performing support functions to archaeology is about 2 times shorter than that of an average employee performing directly

archaeological functions. Also, the educational level of the employees performing support functions is lower because the majority of this category of employees is pursuing a Bachelor's degree.

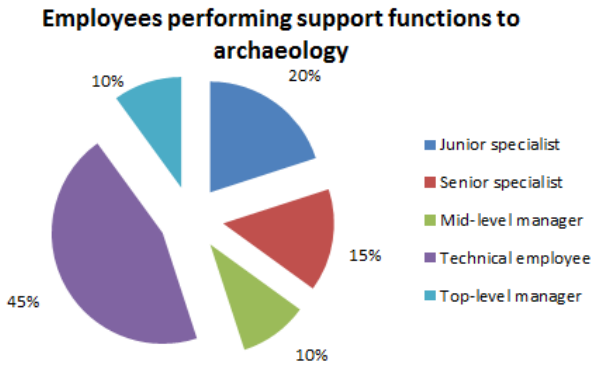


Figure 10 - Support functions to archaeology

Employment Type

One of the important conditions of commencing employment relations is the arrangement of working time. Also, employees need certainty about the continuation of their employment. This means that any employment is more certain when it is protected by labour laws and is subject to the Employment Contracts Act which provides more social guarantees for employees. Therefore contracts of this type are preferred to project-based consultant's contracts or other types of contracts subject to the Law of Obligations Act. The certainty of the employees in Estonian archaeology with regard to their employment relations is strong because 79% of the respondents work on the basis of employment contracts. 74% of the employees work full time and 26% of them work part time. Comparing the contracts of the employees performing archaeological functions to those of the employees performing support functions, we can conclude that the employees performing directly archaeological functions are involved full time 63% more than the employees performing support functions.

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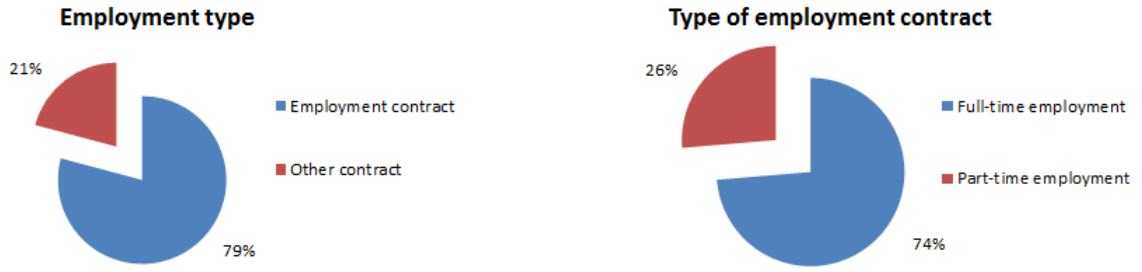

Figure 11 - Types of employment in the field of archaeology

As indicated earlier, 74% of the employees work full time. The average number of monthly working hours of part-time employees is 94. The average number of monthly working hours of project-based employees is 12% lower than that of part-time employees. One respondent, who indicated full-time employment, also performs extra tasks 8 hours each month and one respondent who indicated part-time employment, also performs project-based tasks 22 hours each month and extra tasks in the frames of existing employment contract about 22 hours each month.

While females work about one-fourth more on the basis of full-time employment contracts in comparison to males, male archaeologists are more involved in project-based activities (they have 39% more working hours in comparison to females). An average male archaeologist works on different projects about 110 hours per month; at the same time females have about twice less project-based working hours. The females working on the basis of part-time employment contracts have 2/3 higher number of working hours in comparison to male employees. Thus, we can conclude that Estonian male archaeologists are more willing to be involved in project-based activities while female archaeologists prefer to work on the basis of more certain terms.

Salary Levels

In addition to working hours the average hourly and monthly salary rates of archaeologists were analysed by job positions and organisation types. Also, the issues of potential supplementary salary of archaeologists and the relation between salary and working time were examined. The questions about salary are considered sensitive information and for this reason the questionnaire contained a pre-defined set of salary ranges which enabled the respondents to provide indications about their salary

level without disclosing the contractually fixed salary amount. All major organisation types are represented among the employers of the respondents. Therefore it was possible to obtain sufficient information about all sectors in order to draw necessary conclusions. Also, we must take into account the fact that the majority of Estonian archaeologists work in educational and research institutions and state agencies. For this reason there is statistically much less data about the archaeologists working in private sector.

Full-time employees work on average 168 per month. The calculations are based on the 2013 annual normal working hours (in Estonian *"tööajafond")* because the research data were collected at this time (Eesti raamatupidamine). In order to be able to create a comparative basis for the salaries of full-time, part-time and project-based archaeologists, the average hourly salary rate of full-time archaeologists was calculated. To compare the monthly salaries against it, the working hours of part-time employees were adjusted to full working time and were multiplied by the average hourly salary rate. The average monthly gross salary of full-time archaeologists is 877,56 euro; the average gross salary of part-time employees is 10% higher. However, in this context we should consider that the higher average of part-time archaeologists is influenced by somewhat higher salary levels of the archaeologists working in private companies and other private institutions (including non-profit organisations). When it comes to average salary levels in educational and research institutions and state agencies which are the major employers of Estonian archaeologists, the research results show that full-time employees working in state agencies have 38% higher average monthly salary than part-time archaeologists with their salary level adjusted to full time. The respective comparative indicator of educational and research institutions is 41% in favour of full-time archaeologists.

Average monthly salaries

	State		Educational/research		Municipality	Private company		Other	Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Full-time	Part-time	Part-time	Full-time	Part-time
General	833,33	602,45	900,00	637,72	625,00	750,00	1 019,85	2 625,00	877,56	966,76
Technical employee	750,00	262,50	687,50	611,38	0,00	0,00	466,67	0,00	696,43	446,85
Junior specialist	750,00	1 695,72	910,71	638,35	625,00	0,00	951,28	2 625,00	900,00	1 143,61
Senior specialist	750,00	1 584,87	850,00	787,50	0,00	750,00	1 365,00	0,00	788,46	904,97
Mid-level manager	1 000,00	0,00	1 000,00	0,00	0,00	0,00	0,00	0,00	1 000,00	0,00
Top-level manager	1 250,00	0,00	1 425,00	0,00	0,00	0,00	0,00	2 625,00	1 366,67	2 625,00
Other	0,00	787,50	0,00	572,73	0,00	0,00	0,00	0,00	0,00	680,11

Table 5 - Average monthly salaries by positions and organisation types

Average hourly salary rates

	State		Educational/research		Municipality	Private company		Other	Total	
	Full-time	Part-time	Full-time	Part-time	Full-time	Full-time	Part-time	Part-time	Full-time	Part-time
General	5,36	4,30	5,69	3,80	3,35	4,46	4,96	15,63	5,29	5,76
Technical employee	4,46	1,56	3,35	3,64	0,00	0,00	2,78	0,00	3,91	2,66
Junior specialist	4,46	10,09	4,71	3,80	3,35	0,00	5,66	15,63	4,17	6,81
Senior specialist	4,46	9,43	5,95	4,69	0,00	4,46	8,13	0,00	4,96	5,39
Mid-level manager	5,95	0,00	5,95	0,00	0,00	0,00	0,00	0,00	5,95	0,00
Top-level manager	7,44	0,00	8,48	0,00	0,00	0,00	0,00	15,63	7,44	15,63
Other	0,00	4,69	0,00	3,41	0,00	0,00	0,00	0,00	0,00	4,05

Table 6 - Average hourly salary rates by positions and organisation types

To have a complete overview of salary levels, the indicators were also analysed by hourly rates. On the basis of average hourly salary rates, part-time Estonian archaeologists have 9% higher salaries than their full-time colleagues. Also, other trends reflected in the analysis of the average monthly salary calculations apply. Thus, we can conclude that in Estonia part-time archaeologists earn higher wages both on the basis of hourly salary rate and adjusted average monthly salary calculations.

The research results show that the average gross salary of Estonian archaeologists, considering the salary levels of both full-time and part-time employees, is 11 065 euro per year. The data from the national Board of Statistics indicates that the average monthly gross salary of the Republic of Estonia was 948 euro in 2013 and the average annual gross salary was respectively 11 376 euro. Thus, in comparison to the average rate of the country, Estonian archaeologists earn about 3% lower gross salary.

The average gross salary of technical employees in archaeology is 572 euro per month. The data of both full-time and part-time employees have been included in this calculation. The average salary levels of the technical employees working in state agencies and educational and research institutions are respectively 13% lower and 14% higher; the salary level of the technical employees working in private companies is 22% lower than average.

Depending on their level of competence, the average salary level of specialists is about 300-500 euro higher than that of technical employees. The average monthly gross salary of senior specialists is 847 euro. Junior specialists earn 21% higher average wages than senior specialists. According to the research results, the junior specialists working in private companies have the highest salary level of this employee group. However, we need to take into account that such generalisation is based on the information of only 2 respondents. The difference in salary levels supports the conclusion drawn earlier in this report: the employees working as junior specialists are often highly qualified and this probably also reflects in their salary although due to the static and limited labour market they haven't been able to move to the next career level (senior specialist).

Official salary scale	
Yes	53
No	7
Don't know	11
Other	1

Table 7 - Official salary scales

According to the respondents 53 organisations use official salary scales. Of those, 56% use the salary scale of an educational and research institution. This logically corresponds to the fact that one of the major employment sectors of Estonian archaeologists is the field of education and research. Two state agencies too use an official salary scale based on the principles of an educational and research institution. The second most common type of official salary scales is the state system (30%); to some extent (9%) employers also use their own tailor-made scale.

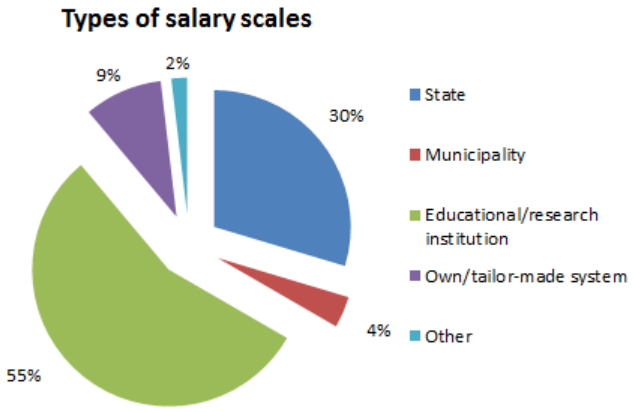

Figure 12 - Types of official salary scales

In Estonia, salary amount is agreed in the course of contractual negotiations between the employer and the employee. Yet, the employee rights are protected by the decree of the Government of the Republic on the establishment of minimum salary rates[4]. According to the decree, the minimum salary rates for full-time employment in Estonia as of 1 January 2014 are as follows: the hourly minimum rate is 2,13 EUR and the monthly minimum salary rate is 355 euro. The decree sets the minimum salary rates for all employment contracts of the country but naturally it does not limit the payment of salaries above minimum. There are no fixed national salary rates for Estonian archaeologists; there are no unions and no collective agreements. Similar to the general procedure, salary amounts in archaeology are agreed between the parties.

4 Vabariigi Valitsuse määrus 28.11.2013.a. nr 166 "Töötasu alammäära kehtestamine". RT I, 03.12.2013, 4. Available at http://www.riigiteataja.ee/ (in Estonian) (20.04.2014).

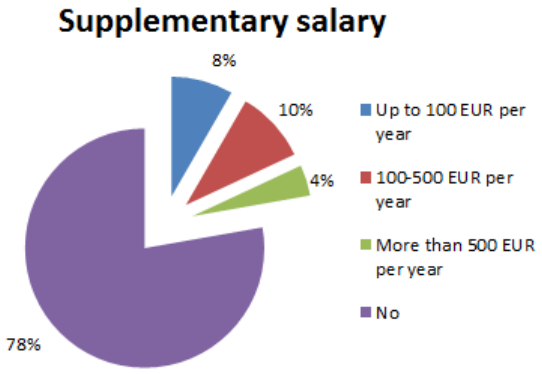

Figure 13 - Supplementary salary

In the course of the research it was examined whether good work performance in the field of archaeology is rewarded by supplementary salary. 78% of the respondents do not receive supplementary salary. Most often supplementary salary is paid to the employees of research / educational institutions and state agencies. The employees of commercial enterprises are paid supplementary salary to a small extent while the employees of municipalities receive it very seldom. The average annual supplementary salary is 262,50 euro.[5] The average supplementary salary of the employees of educational and research institutions is 74% lower than that of the employees of state agencies and 69% lower than that of the archaeologists working in private companies. In private companies archaeologists receive supplementary salary which is 16% lower than that of the employees of state agencies. Supplementary salary for good work performance is most often paid to female senior specialists (44% of the receivers of supplementary salary) but the average highest supplementary salary is paid to male top-level managers: 450 euro on average. Generally, male archaeologists receive 3% higher average supplementary salary than females.

Employee Rights and Benefits

It was analysed which rights and additional benefits the employees in Estonian archaeology have at their current place of employment. According to the Estonian labour law, employees are entitled to annual fully paid leave of 28 calendar days unless agreed differently between the parties[6]. About 2/3 of the respondents indicated that they are entitled to more than 28 calendar days of paid leave per year. Such trend is related to the fact that educational and research institutions are the major employers of Estonian archaeologists and respectively their employees are legally classified as

5 In the calculation of average supplementary salary the upper limit for the scale was set at 700 euro.
6 Töölepingu seadus § 55. RT I 2009, 5, 35; RT I, 10.07.2012, 2. Available at http://www.riigiteataja.ee/ (in Estonian) (20.04.2014).

educational and research staff. The Employment Contracts Act stipulates that the annual leave of educational and research employees in Estonia is up to 56 calendar days per year (Art 58 (1)).

Employee rights and benefits			
	Yes	No	Don't know
Entitled to more than 28 days of paid leave?	64%	10%	26%
Entitled to paid study leave?	60%	1%	39%
Entitled to days off for health recovery?	31%	10%	60%
Entitled to days off for family events?	60%	7%	33%
Entitled to unpaid child care leave?	36%	1%	63%
Entitled to unpaid study leave?	63%	1%	36%
Entitled to flexible work arrangement?	81%	7%	13%
Entitled to the compensation of housing / living costs?	1%	63%	36%

Table 8 - Employee rights and benefits

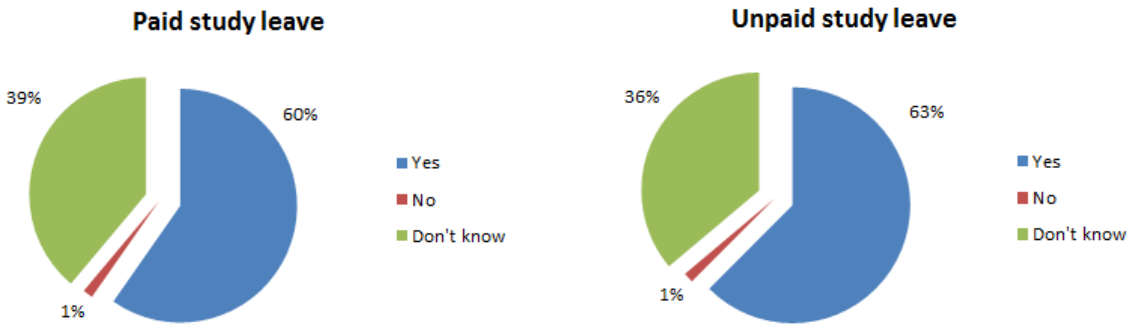

Figure 14 - Paid and unpaid study leave

The employers of Estonian archaeologists are very willing to make it possible for their employees to continue their studies in parallel to work. In the case of study leave there is a similar trend as in the case of regular annual paid leave. 60% of the respondents indicated that they are entitled to paid study leave while 63% of the respondents are entitled to unpaid study leave. Yet, there is a relatively large share of those respondents who didn't even know whether they are entitled to paid or unpaid study leave (respectively 39% and 36%). Only 1% of the respondents indicated that they are entitled to neither paid nor unpaid study leave.

In addition to official sick leave, a relatively large share of the employers of Estonian archaeologists (31% of the respondents) enable their employees to take paid days off for health recovery in case the employee or his/her family member has a presumably short-term health problem which can be recovered from within 2-3 days. Again, there is a large share of the respondents (60%) who weren't aware of whether they are entitled to such days off or not. More than half of Estonian archaeologists (60%) are also entitled to days off in relation to family events.

Comparing different types of leave options, the respondents have the least knowledge about their potential entitlement to unpaid child care leave[7]. 63% of the respondents didn't know whether they would be entitled to unpaid child care leave or not while 36% of the Estonian archaeologists have clearly indicated that they are certainly entitled to unpaid child care leave. In this context it should be noted that according to the law such right is guaranteed for all parents who meet the criteria set by the law. According to the Employment Contracts Act, mothers or fathers who are raising a child of up to 14 years of age or a disabled child of up to 18 years of age are entitled to a child care leave without pay of up to 10 working days per calendar year.

In the course of the research the work arrangement of Estonian archaeologists was examined. Respectively, we can conclude that the work of Estonian archaeologists is arranged very flexibly. The majority (81%) of the respondents have such work conditions which enable them to work at any time and regulate their own work. Such conclusion is not surprising because the nature of the work of an archaeologist requires a lot of mobility and there are often very different time requirements for the completion of different multifunctional tasks at different work stages. Only the employees of state agencies have generally no possibility for flexible work arrangement (7%).

In addition to the predefined benefits, the respondents were asked to specify any other rights and benefits they might have at their place of employment. Respectively, some of the respondents noted that they receive compensation for the use of personal vehicle in work-related travel and they can claim better prices at some service providers (e.g. ferry companies, etc.) thanks to special agreements and arrangements their employers have with such service providers.

7 According to the Employment Contracts Act the correct legal term is "child care leave without pay" (Art 64).

4. Education

The discipline of Archaeology can be studied in two public universities in Estonia: the University of Tartu (hereafter also UT) and the University of Tallinn (hereafter also UTL). At the University of Tallinn, the studies can be completed in two institutes – the Institute of History and the Estonian Institute of Humanities. In the latter, the students who have chosen to study Archaeology need to pass their archaeological courses at the Institute of History which means that the two institutes of the same university do not duplicate courses. At the University of Tartu, the total number of study places of all study levels at its Institute of History and Archaeology has decreased over the course of years (based on the UT curricula and enrolment data of 2010). At the University of Tallinn, the number of enrolled students at all study levels has been relatively stable in 2010–2013. One of the major reasons for the decrease in the number of study places at the University of Tartu is the recently started educational reform which first and foremost brought about the cancellation of non-state financed study places. Although one of the major reasons for the reform was the intention to increase the quality of studies, it also has negative consequences. The number of study places in public universities is very strictly tied to state demand. However, the real needs and the ability of students to continue at the next study level are not always considered. The decrease in the number of study places particularly affects those wishing to continue their studies at Doctorate level.

Current Situation and Future Perspectives of Bachelor Studies

The structure of curricula is different in the two universities. However, the discipline of Archaeology is one of the six possible choices within the degree studies of History both at the UT Institute of History and Archaeology and the UTL Institute of History. At the Estonian Institute of Humanities (the UTL) one can choose the discipline of Archaeology within the degree studies of Anthropology. At the level of Bachelor studies the choice of a discipline in usually made within the first year of studies. However, there are also such students who already upon enrolment know exactly which discipline they want to study. Although the total number of study places has decreased, the situation with the UT study places at the level of Bachelor studies in History is relatively good. The decrease in the number of study places has first and foremost come from the decrease of non-state financed study places. The total number of planned study places[8] in 2010 was 140 and in 2011 it was 118. In both years, 107 students were

8 It is important to note that these data include the degree studies of History as a whole. The discipline of Archaeology is one part of it and the graduates receive a diploma in History. There are not data specifically

actually enrolled. In 2013, there were 80 study places at the level of Bachelor studies in History at the University of Tartu while there were 78 students enrolled. At the University of Tallinn there were 24 students enrolled at the Institute of History and 16 students enrolled at the Estonian Institute of Humanities in 2013.

Graduates (the discipline of Archaeology)	The University of Tartu	The University of Tallinn (Institute of History)	The University of Tallinn (Estonian Institute of Humanities)
Bachelor studies			
2010	**7**	**–**	**1**
2012	**10**	**1**	**–**

Table 9 - The graduates of Bachelor studies in 2010 and 2012

The difference between the two universities with regard to the graduates of the discipline of Archaeology is clearly noticeable. There were 7 graduates at the University of Tartu in 2010, while there was only 1 graduate of Bachelor studies at the University of Tallinn. In 2012 the number of graduates at the University of Tartu increased to 10 but the University of Tallinn had again only 1 graduate. The forecast of 2013 and 2014 was somewhat more optimistic at the University of Tallinn: the expectation regarding the potential number of graduates was respectively 3 and 4. The number of graduates was seen to decrease again in 2016. No forecast was provided in respect of 2018. At the University of Tartu the range of forecasted potential graduates is rather big (5–10) and more optimistic than that of the University of Tallinn.

Graduates (the discipline of Archaeology) – forecast[9]	The University of Tartu	The University of Tallinn
Bachelor studies		
2013	Available in May 2013[10]	(Institute of History) **1** (Estonian Institute of Humanities) **2**
2014	**5–10**	**4**
2016	**5–10**	**1–2**
2018	**5–10**	N/A

Table 10 - The graduates of Bachelor studies – forecast

about the study places of the discipline of Archaeology. Also, it should be noted that both regular studies and the studies in the form of Open University, stated-financed and non-state financed study places are taken into account. In 2010, there were 33 state-financed regular study places and 10 state-financed Open University study places; there were respectively 67 and 30 non-state financed study places. In 2011, the respective indicators were: state-financed 33 and 10; non-state financed 40 and 35.

9 The forecast does not differentiate between the potential graduates of the two institutes of the University of Tallinn.

10 There were 8 Bachelor theses in Archaeology defended at the University of Tartu in 2013 (data received after the completion of the questionnaire).

In this light it would be necessary to discuss what the reasons for these differences in the numbers of enrolment and graduates of the two universities are. Naturally, one of the reasons is the overall smaller number of enrolments in Tallinn. For example, in 2013 there were 78 students enrolled in the degree studies of History at the University of Tartu while there were 24 students enrolled in the degree studies of History and 16 students enrolled in the degree studies of Anthropology at the University of Tallinn. However, the share of graduates in comparison to the number of enrolled students is nevertheless much smaller in Tallinn. Another reason is the longstanding trend of student candidates having over the years preferred the University of Tartu in the choice of higher education[11]. Such choice is not specifically related to any particular field of study. The choice is made first and foremost on the basis of general reputation of the university. Many respondents indicated that they didn't even think about the alternative of starting their studies of the same field at the University of Tallinn. Last but not least, one should bear in mind that the tradition of teaching archaeology at the University of Tallinn is relatively short. The Institute of History, which was merged with the University of Tallinn only in 2005, was earlier for decades part of the Estonian Academy of Sciences. The latter was purely a research institution which was engaged in no teaching.

There are no major differences between the curricula of the discipline of Archaeology of the two universities. Although the University of Tallinn has somewhat more focus on urban and historical archaeology, the difference is not that big as to become a trigger for preferring one university to another. On the contrary, this can become a solution to the problem. Since there is sufficient potential at the Institute of History of the University of Tallinn, more focus could be put on thorough teaching of theory and methodology of urban and historical archaeology in Tallinn. On one hand, this would allow more specialisation; on the other hand, student candidates would have more choice. Due to numerous rescue excavations there is a practical need for more urban archaeologists and therefore it is very realistic to increase the number of enrolments in the field of Archaeology at the University of Tallinn and the respective number of graduates. Also, this would much enhance the preparedness of young labour market entrants to work as urban archaeologists.

An important aspect to pay attention to is the clear need for continued Master studies, should the recent Bachelor graduate want to work as an archaeologist in the future. The Bachelor studies in Archaeology only establish a basis for moving on, broadening the big picture and providing basic knowledge of general subjects and archaeology. However, the studies at Bachelor level are not sufficient for work as an archaeologist.

11 The information is based on oral interviews carried out arter the completion of the questionnaire.

Current Situation and Future Perspectives of Master Studies

The majority of Bachelor graduates in Archaeology wish to continue their studies at Master level. The situation is particularly good at the University of Tartu. First, there is quite much interest in studying Archaeology and studies are taken seriously. For the second, strong competition motivates students to work hard and study results are normally very good. Therefore, there is bigger number of enrolments in Master studies of the discipline of Archaeology at the University of Tartu in comparison to other disciplines in frames of the studies of History. For example, in 2012 the total number of students enrolled in six disciplines at the Institute of History and Archaeology was 21. Of those, 7 started Master studies in the field of Archaeology. The situation at the University of Tallinn with regard to enrolments in Master studies is modest. In 2012, only one student was enrolled in the studies of Archaeology.

Enrolments in the studies of Archaeology	The University of Tartu	The University of Tallinn
Master studies		
2010	5	–
2012	7	1

Table 11 - Enrolments in the Master studies of Archaeology

Current educational policy does not require the applicants for Master studies to have Bachelor-level education in the same discipline. In addition to Bachelor-level graduates of Archaeology there are also the graduates of other disciplines among the applicants for Master studies of Archaeology. As a rule, most of them have nevertheless passed also some courses in the field of Archaeology. There is very little inter-university mobility. The graduates of the University of Tartu do not continue their studies at Master level at the University of Tallinn. There is some mobility in the opposite direction – some Bachelor-level graduates of the University of Tallinn have continued their education at the University of Tartu.

Graduates of Archaeology	The University of Tartu	The University of Tallinn (The Institute of History	The University of Tallinn (Estonian Institute of Humanities)
Master studies			
2010	(3+2)[12] **3**	**2**	**–**
2012	(4+2) **2** **5**	**–**	**1**

Table 12 - The graduates of Master studies in 2010 and 2012

12 In 2010 Master degrees were defended both according to the old (4+2) and new (3+2) degree systems; therefore the graduates are differentiated accordingly.

The situation at the University of Tartu is better also with regard to the number of Master graduates. In 2010 and 2012 there were 5 Master theses in Archaeology defended at the University of Tartu. Although the difference between the two universities is nevertheless big, the situation of the University of Tallinn looks better at this study level: in 2010 there were 2 graduates and in 2012 there was one graduate of Archaeology. Both universities evaluate their future perspectives on the basis of current statistics. The perspective of the University of Tartu is optimistic and the realistic forecast of the number of Master graduates ranges from 4 to 7 in 2013, 2014, 2016 and 2018. The outlook at the University of Tallinn remains as modest as in the case of Bachelor studies forecast. In 2013-2014 only one Master thesis is to be defended at the UTL whereas its topic is interdisciplinary and covers both art history and archaeology. There is no forecast provided for 2016 and 2018.

Graduates of Archaeology (perspective) [13]	The University of Tartu	The University of Tallinn
Master studies		
2013	**7**	**1**
2014	**4–7**	**1**
2016	**4–7**	N/A
2018	**4–7**	N/A

Table 13 - The graduates of Master studies – forecast

After the completion of Master studies the graduates of both universities have sufficient knowledge and experience to work in the field of archaeology and they are ready to enter the labour market. The alternative choice is to apply for Doctorate studies. Comparing the number of Master-level enrolments at the University of Tartu in 2012 to the forecasted number of Master graduates in 2014, certain conflict arises. The nominal study period of Master studies is two years. Thus, the students who started their studies in 2012 should graduate in 2014. According to the forecast, at least part of the enrolled students won't finish their Master studies within the nominal time. There is an important aspect – very many Master students spend some time abroad during their studies, obtaining additional knowledge in their specific research field from some foreign university. For this reason graduation is often postponed. However, such studies enable to learn new skills and knowledge which are often not available at any of the two universities in Estonia. This in turn increases the level of archaeological skills and expertise of the young archaeologists entering the labour market or applying for Doctorate studies.

13 The forecast does not differentiate between the potential graduates of the two institutes of the University of Tallinn.

Current Situation and Future Perspectives of Doctorate Studies

The statistics of Doctorate studies are much more modest. Similar trend is probably characteristic to all fields of science – only the students with very certain scientific interest and ambitions will continue their education path with Doctorate studies. In the field of archaeology the academic degree at Master's level provides for potential professional possibility to enter into the labour market. On the other hand, most of the Estonian Master graduates have quite a strong academic potential and many of them are willing to continue their studies at Doctorate level. Unfortunately, the recently started educational reform has significantly decreased this alternative of young people with academic potential. Different from earlier educational policy it is not any longer possible to obtain a Doctorate degree in a non-state funded study place.

The objective of the reform is to increase the quality of education and to ensure that Doctorate students only engage in their studies and research work in order to finish the studies within nominal time. Such objective has been set based on the actual situation where Doctorate students with no income in the form of state-funded Doctorate support need to work full time in parallel to their Doctorate studies. Such work load is overly burdensome to many students and therefore studies are often upstaged with graduation becoming postponed. At the same time, the reform significantly decreases the possibilities of people with high academic potential to be engaged in scientific activities.

At the Institute of History and Archaeology of the University of Tartu there were 5 state-funded study places and additionally there were non-state funded study places (respectively 5+13 enrolments) in 2010. According to these terms each discipline would theoretically have one study place. Naturally such system would not guarantee a certain study place for a certain discipline (e.g. archaeology) because the enrolment is based on the ranking of applicants. Different from the Bachelor studies of Archaeology where the number of study places was decreased only on the account of non-state funded study places, the Doctorate studies faced a decrease in state-funded study places while the non-state funded study places were totally cancelled. Starting from 2011 the number of state-funded Doctorate study places at the UT Institute of History and Archaeology decreased from 5 to 3. At the same time non-state funded study places were kept. In 2013 the number of study places was cut again and the Institute eventually had only 3 state-funded study places for 5 disciplines. This means that even if there is one applicant of each discipline among the top five of the ranking of applicants, the applicants of at least two disciplines will be left aside. The reality is even more drastic. Although the enrolment should be based on the ranking of applicants, it is actually the general situation in science which is evaluated and therefore the disciplines which have not had Doctorate students in recent

years are often preferred. Therefore many academically capable applicants do not become accepted for Doctorate studies.

Enrolments in the studies of Archaeology	The University of Tartu	The University of Tallinn
Doctorate studies		
2010	3	2
2012	1	–

Table 14 - Enrolments in the Doctorate studies of Archaeology

An alternative solution in such situation is to establish an additional non-state funded study place, using the internal resources of the university (e.g. the professoriate of national science). Thanks to such solution two archaeologists became accepted for Doctorate studies at the University of Tartu in 2013 – one on a state-funded study place and another on an internally financed study place. Unfortunately this would not solve the issue with the system as a whole, leading to situations where many Master graduates with strong academic potential can't continue their studies at Doctorate level.

When it comes to Doctorate graduates, another problem arises. Doctorate students aren't able to finish their studies within nominal time. This is directly related to the fact that the Doctorate students who study on non-state funded study places have no income in relation to their Doctorate studies. Thus, the students need to work outside the university in parallel to their studies. With high study expectation and heavy work load it is naturally very difficult to finish Doctorate studies within nominal time. Practically the situation is not much better with state-funded Doctorate students. The financial support they receive from the state in relation to their studies is not nearly sufficient for living and therefore state-funded Doctorate students too work part time in parallel to their studies. In 2010 and 2012 no Doctorate theses of Archaeology were defended in the two universities. In 2011 one Doctorate thesis was defended at the University of Tartu.

Graduates of Archaeology	The University of Tartu	The University of Tallinn (Institute of History)	The University of Tallinn (Estonian Institute of Humanities)
Doctorate studies			
2010	–	–	–
2012	–	–	–

Table 15 - The graduates of Doctorate studies in 2010 and 2012

Although the current situation with the number of Doctorate graduates is modest, the universities are more optimistic with regard to the following years. At the University of Tartu there was one Doctorate thesis planned to be defended in 2013 while the forecast number of Doctorate graduates at the

University of Tallinn was 1-2. At the time of completing the questionnaire, one Doctorate thesis had respectively passed preliminary defence procedure and another was in the process of complying with formal requirements. Further forecasts indicate that there will be one Doctorate thesis defended in 2014 and 1-2 theses defended in 2016 and 2018 at the University of Tartu. The forecast of the University of Tallinn is 1-2 graduates in 2014 and 2016. There is no forecast provided for 2018.

Graduates of Archaeology (perspective)	The University of Tartu	The University of Tallinn
Doctorate studies		
2013	**1**	**1–2**
2014	**1**	**1–2**
2016	**1–2**	**1–2**
2018	**1–2**	N/A

Table 16 - The graduates of Doctorate studies – forecast

On the basis of the existing statistics and in the light of the ongoing educational reform it is not yet possible to determine exactly which one of the problems related to the Doctorate studies of Archaeology is prevailing – the fact that young archaeologists with strong academic potential may not be accepted for Doctorate studies and Estonia would thereby lose some good future scientists or the fact that due to heavy work load students are not able to finish their Doctorate studies within nominal time. In the latter case there will be at least academic contribution in the form of articles based on which the images of the past generated by archaeologists can be more perfected.

Educational Outlook for Archaeologists

In the course of the research the educational outlook of Estonian archaeologists in the period of 1, 3 and 5 years was analysed. Respectively, the views of the two universities and the respondent archaeologists were examined. Since the majority of the respondents (80%) had completed or were in the process of completing their studies at Master or Doctorate levels, it is evident that no major educational changes are foreseen in the period of one year and the share of the respondents not planning any changes (76%) approximately corresponds to it. About 13% of the respondents plan to start Master studies, which clearly corresponds to the share of Bachelor graduates. The number of potential Doctorate applicants amounts to 6% of the respondents and this in turn corresponds to the number of Master graduates. Since the number of Doctorate study places is very limited due to the recently started educational reform, the actual number of Doctorate enrolments will be smaller than the number of applicants. There were 6% of the respondents who weren't able to provide their

educational outlook at all. To some extent this is definitely related to the uncertainty deriving from the understanding that there is only very limited possibility to reach the level of Doctorate studies.

The perspective of five years shows quite clear change in comparison to the perspective of one year. Generally, the educational outlook is similar but there are no respondents who would plan Master studies. This clearly corresponds to the educational level of the respondents at the time of the research. The respondents, who were in the process of completing their Bachelor studies at the time, will have completed Master studies in five years and their next step will be either to enter the labour market or to apply for Doctorate studies. The share of the respondents not planning any educational changes has increased (87% of the respondents). This is also related to the fact that those respondents, who were in the process of completing their Doctorate studies at the time of the research, will have finished their studies and achieved their Doctorate degree in five years. The number of potential Doctorate applicants amounts to 6% of the respondents also in the perspective of five years and those unable or unwilling to identify their educational outlook amount to 7% of the respondents.

The forecasts made by the two educational institutions with regard to the graduates of different study levels are stable and generally optimistic. At the same time there is some cautiousness with regard to providing very certain forecasts. The estimated range of future graduates at the University of Tartu is relatively large. Regardless the fact that the numbers of enrolments and graduates of Archaeology have stayed at quite good levels in recent years, the forecasted number of Bachelor graduates ranges between 5–10 and the forecasted number of Master graduates ranges between 4–7 in all three years (2014, 2016 and 2018). The forecast of the University of Tallinn is as modest as its current graduation statistics. The outlook of the near future (2013 and 2014) is based on the data of current students of Archaeology. There is no certain numeric forecast about the years of 2016 and 2018. Only the outlook of Doctorate studies is relatively optimistic. The expectation is that there will be 1-2 Doctorate graduates at the University of Tallinn in both 2014 and 2016. There is no forecast provided for 2018.

Comparing the forecasts of educational institutions with the estimations provide by the respondent archaeologists, the research results indicate that the number of Master graduates forecasted by the universities corresponds to the number of potential Master applicants. On the other hand, there is a gap in respect of Doctorate studies. There are more potential Doctorate applicants than the respective study places at the universities. Accordingly, the number of Doctorate graduates will start to decrease in the future.

5. Supplementary Training

Professional Skills and Training Needs

The research sought to analyse whether and how much the employers of Estonian archaeologists train their employees upon recruitment. The results indicate that a large share of employees receive very little (21%) or no training at all (38%) upon their recruitment. One of the reasons is probably the estimation of the employer that the skills of its future employee are sufficiently good for work. This matches the opinion of the respondents – more than 50% of them considered their professional skills upon recruitment good or very good. Similarly, the responses of the archaeologists indicating a need for much training and weak professional skills correspond to each other: 15% of the respondents considered their professional skills upon recruitment weak whereas 11% of the respondents received much training from their employer upon recruitment. Since the community of Estonian archaeologists is small, the background and activities of young archaeologists / students are known to their potential employers already prior to their entry into the labour market. Therefore it is probably much easier for the employer to evaluate the capability of a young archaeologist to perform his/her potential duties and the related need for training before his/her recruitment.

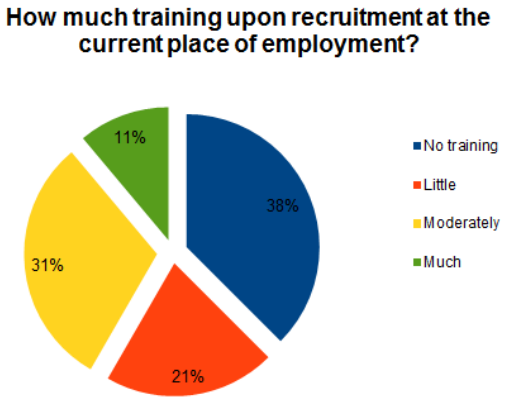

Figure 15 - Training at the current place of employment

Trying to evaluate whether there are major differences in training upon recruitment depending on the length of work experience, there is no trend to indicate that the more experienced employee, the less training upon recruitment. About 67% of the respondents, whose current place of employment is their very first employment in archaeology (altogether 25% of the respondents with about half of them having work experience less than 5 years), received little or no training at all. 55% of the respondents, whose current place of employment is the second or at least third employment of their career,

received little or no training upon their recruitment. The employers provided moderate or much training to 45% of the employees who work in their second or at least third place of employment. Of those employees who work in their first place of employment, 33% received much or moderate training upon recruitment. Thus, contrary to the logical expectation, the training of more experienced employees was more active than that of less experienced employees.

Figure 16 - The level of professional skills upon recruitment at the current place of employment

When it comes to connections between the initial training of employees and the structure of employment, the research results show that temporary employees received somewhat more training than permanent employees. 78% of the respondents are permanent employees. 73% of the permanent employees work full time and 27% of them work part time. There is the largest share of temporary employees among those respondents whose current place of employment is at least the third employment in their career (38%). On the other hand, temporary employees constitute only 17% of the respondents whose current place of employment is the first employment in their career. For comparison – the share of temporary employees among those employees, who were recruited to at least their third place of employment and who were trained moderately or much by their employers, was more than 70%. On the other hand, the share of temporary employees among those employees, who were hired for their very first job and received much or moderate training, was only 17%.

As a result of trainings the professional skills of those employees working in their first place of employment were improved the most – 67% of them estimated the influence of trainings in minimizing the shortage of skills to be moderate or big. The trainings provided by the employers had the least effect on the skills of the employees working in their third place of employment – 42% of the

respective respondents found that the trainings helped minimizing their shortage of skills moderately or much.

This allows us to conclude that although the employees hired for their first job received relatively less training in comparison to the employees recruited to at least their third place of employment, the majority of the employees trained in their first place of employment were permanent employees towards whom the employers have long-term perspective with the gradual improvement of skills by continuous trainings in the course of employment. It should be also noted that a large share of such employees enhanced their professional skills moderately or much through the trainings provided by the employers upon their recruitment. This assumes further improvement of skills in the course of working and supports the conclusion about the forward-looking approach of the employers. On the other hand, the majority of the trained employees hired for at least their third job in a row were temporary employees whose professional skills were improved less through the trainings than the skills of the permanent employees hired for their very first job. In Estonia, temporary employees are usually hired to carry out some temporary (often seasonal) project-based or specific task which requires short-term initial on-site and following running instructions or explanation of specific skills. Thus, considering the temporary (often short-term) nature of work and related need for fast and dynamic (often project-based or object-based) training, the generally lower rate of minimizing the shortage of skills of such employees in comparison to permanent long-term employees is quite understandable.

Current place of employment	First	Second	Third or more
Training upon recruitment	***25%***	***39%***	***36%***
No training	10%	11%	17%
Little	7%	8%	6%
Moderately	4%	17%	10%
Much	4%	3%	4%
Level of skills upon recruitment	***25%***	***39%***	***36%***
Weak	10%	1%	4%
Average	7%	11%	15%
Good	7%	25%	11%
Very good	1%	1%	6%
Minimizing the shortage of skills	***25%***	***39%***	***36%***
No effect	4%	4%	10%
Little	1%	10%	6%
Moderately	11%	15%	13%
Much	6%	6%	3%
No shortage	3%	4%	6%
Employee status	***25%***	***39%***	***36%***
Permanent	21%	35%	22%
Temporary	4%	4%	14%

Table 17 - Training upon recruitment

In the course of the research the types of supplementary training provided by the employers of Estonian archaeologists in the course of employment were examined. None of the employers is based only on formal external trainings (i.e. the trainings offered by external training providers in the form of courses and seminars) in improving and supplementing the skills of its employees. On one hand, this probably results from the fact that there are no systematic training programmes or providers covering the whole field of archaeology in Estonia. On the other hand, an important criterion to consider with regard to external trainings is the available resources. Earlier in this report we have shown that the salary levels in the field of archaeology are lower in comparison to the average of the Republic, indicating also the tighter financial possibilities of the employers of the field. Respectively, we can assume that the training resources of the field are similarly limited.

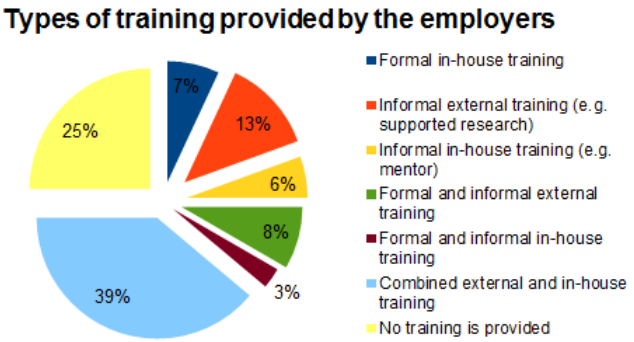

Figure 17 - Types of supplementary training

The combination of external and in-house trainings dominates the types of supplementary training: 39% of the respondents have indicated that their employers use such means of training. External trainings are often targeted at covering some narrow and specific field or topic. The potential lack of resources is also reflected in the fact that quarter of the respondents are not provided with any training at all.

In respect of the types of training it is interesting to draw attention to the fact that quite a few employees (13% of all the respondents) receive training only in the form of informal external trainings, for example carrying out supported research work, participating at research projects and so on. This allows the conclusion that against limited resources the employers of Estonian archaeologists enable their employees to educate and train themselves as flexibly and in different forms as possible. Since the majority of the employers of Estonian archaeologists are educational and research institutions, such form of trainings can also be logically very well explained by their functions.

The research results show that the employers of Estonian archaeologists are more willing to invest through continuous professional training in permanent employees rather than temporary employees. 86% of permanent employees receive training and development in different forms whereas only 38% of temporary employees receive some training in the course of working. The most common form of training of permanent employees is the combination of external and in-house trainings. Temporary employees are usually trained either in the form of combined or external trainings. First and foremost, external training of temporary employees is informal such as supported research work and studies, i.e. the type of training which does not involve direct additional cost for the employer and which relies on the working time of the employee as the major resource to be put in use for training purposes. Since the discipline of archaeology is specific and practically very much related to the educational and research institutions in Estonia, such choice on behalf of the employers seems quite logical against limited resources. In the case of permanent employees, the employers are ready to spend more on direct supplementary training: 45% of the permanent employees, whose employers provide external trainings, are trained mostly in the form of external seminars, trainings, thematic conferences, etc.

Current place of employment	Permanent employees	Temporary / project-based employees
Type of training	***78%***	***22%***
External training	15%	4%
In-house training	14%	0%
Combined external and in-house training	38%	4%
No training provided	11%	14%

Table 18 - The training of permanent and temporary employees

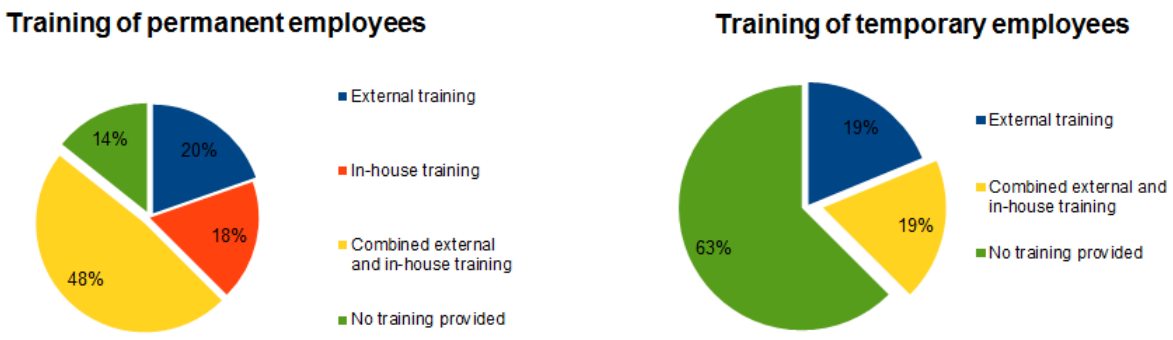

Figure 18 - The training of permanent and temporary employees

In the course of the research, the ongoing evaluation of professional skills and training needs by the employers of Estonian archaeologists were examined. The negative aspect of it is that almost half of the employees do not know whether their employers plan their training activity in terms of time or finances, estimate the amount of time spent on trainings or the impact of trainings. About 1/4 of the respondents indicated that their employers have no training plan and 38% marked that their employers neither monitor the time spent on trainings nor evaluate any training results. Only 18% of the employers have a training plan and only 35% of the employers have a system for evaluating work performance (and related training needs). This indicates that the aspects of training and development of employees are not unfortunately sufficiently important in the system of values and internal communication of many employers of Estonian archaeologists. On the other hand, about half of the respondents indicated that their employers nevertheless support employee development which means that the aspect of training and development of employees is not completely overlooked by the employers of Estonian archaeologists. Assumingly the employers generally support the self-development and training of employees. However, in the light of limited resources it is complicated to implement official training plans, budgets and activities particularly for the reasons related to different resources (time, finances, etc.).

Identification and improvement of professional skills			
	Yes	No	Don't know
Does the employer have a training plan?	18%	24%	58%
Does the employer have a training budget?	19%	13%	68%
Does the employer estimate the time spent on training?	15%	38%	47%
Does the employer evaluate the impact of training?	11%	38%	51%
Does the employer have a system for the measuring of work performance?	35%	22%	43%
Does the employer support the self-development of employees?	50%	14%	36%

Table 19 - Identification of training needs

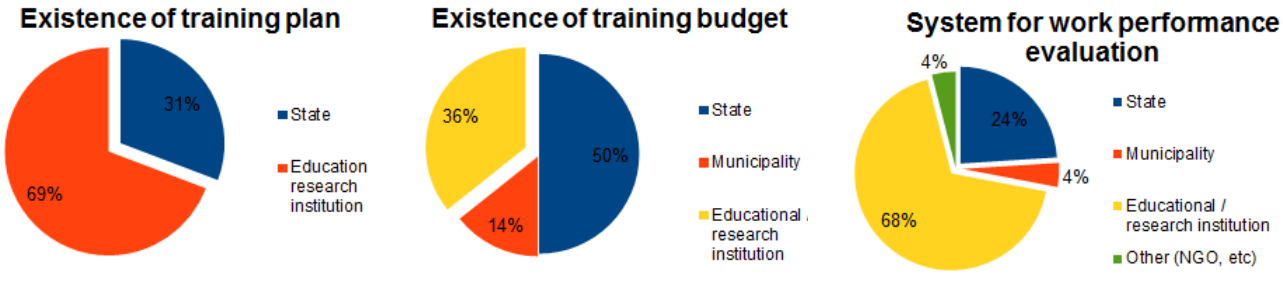

Figure 19 - The training and development of employees

There are only two categories of employers with official training plans – the state agencies and educational / research institutions. These two categories also have separate training budgets. Additionally, separate training budgets exist in municipalities. Since most of the respondents employed by municipalities primarily work in small organisations (e.g. local museums), the logical conclusion is that although such small-scale employers do not have official training plans, there are certainly budgetary resources and possibilities for training. Educational and research institutions (mainly universities) constitute a large part (68%) of the employers with a defined system for the evaluation of work performance. Also, work performance is systematically evaluated in state agencies, some municipalities and a few other organisations.

We can conclude that the training and development of employees in Estonian archaeology is mostly done by public sector employers (incl. state universities) which is logically linked to the fact that the employers of this sector dominate the labour market of archaeologists. Only some of the respondents are employed in commercial companies and it is clear that the seasonal nature, specific market and costly business of archaeology would not ensure the business volumes for private sector employers to contribute to the training of their employees similarly to budgetary institutions. Of public sector employers, educational and research institutions set the most focus on the training and development of employees. This is logically linked to their core function. Other employers such as non-profit organisations are rather rare in relation to employment in the field of archaeology. In their case, the capability of training is not even close to that of the employers financed by state or municipality budget.

In Estonia, the training of archaeologists is carried out by public universities in the frames of degree studies of History, enabling to specialize in archaeology in the course of studies. The training of Estonian archaeologists is more of academic than practical nature. There are no supplementary training programmes for practising archaeologists in Estonia. This means that the follow-up training of archaeologists after the completion of their university studies is to be solved by the archaeologists themselves and their employers. Thus, against limited resources and possibilities, the supplementary training of archaeologists in Estonia is unfortunately random and unpredictable. In archaeology, similar to other disciplines, there are ongoing changes in research and analytical methods together with the developments of technology and related fields. Also, there are additional finds and constant renewal of interpretations. This means that there is a clear need for continuous development of employees in archaeology as a dynamic discipline and environment.

In this light, the educational and research institutions which provide degree-level training to archaeologists in Estonia or other organisations (e.g. the professional association, non-profit organisations, etc) in cooperation with the educational and research institutions could consider establishing a systematic (and professionally approved) practical supplementary training programme for the archaeologists practising at different levels and/or in different fields. Such programme could result in some form of standardised attestation (i.e. vocational qualification) – for example, evaluating the competence and skills of an archaeologist in the course of practical daily work. On one hand, this would certainly contribute to ensuring better practical skills; on the other hand, this would also enable to differentiate between archaeologists and provide professionally acknowledged evaluation of the skills of practising archaeologists. Such system could partially use the UK system of vocational qualifications as an example (i.e. *Qualification in Archaeological Practice*) (McDermott & La Piscopia 2008, 71). The establishment of the system should be certainly based on cooperation with the employers of Estonian archaeologists in order to ensure their readiness to allow their employees to participate at such supplementary training programme and provide support to them in terms of flexible working conditions and financial matters, if possible.

Shortage of Professional Skills

In the course of the research the level of professional skills of Estonian archaeologists upon recruitment and the major shortage of their skills were examined. A bit more than half of the respondents indicated that their professional skills were very good or good; 33% of the respondents considered their professional skills average and 15% of the respondents found that their skills upon recruitment were weak (please see the previous part of the report for more details). Looking at the age structure of employees we can conclude that the employees at the age of 20-29 years have the weakest professional skills – they constituted 64% of the respondents who considered their professional skills upon recruitment weak. This age group also dominated all other evaluations of professional skills although without so much prevalence. Partially this can be explained by the generally large share of this age group among all the respondents (approximately 45%).

Professional skills upon recruitment	Weak	Average	Good	Very good
Age	***15%***	***33%***	***43%***	***8%***
Up to 20	0%	0%	0%	0%
20-29	10%	15%	18%	1%
30-39	4%	14%	11%	3%
40-49	1%	3%	10%	1%
50-59	0%	0%	4%	1%
Older than 60	0%	1%	0%	1%
Work experience in archaeology	***15%***	***33%***	***43%***	***8%***
Less than 1 year	1%	0%	3%	0%
1-3 years	4%	7%	4%	1%
3-5 years	3%	4%	7%	3%
5-10 years	3%	8%	11%	0%
10-20 years	1%	10%	8%	0%
More than 20 years	3%	4%	10%	4%
Position	***15%***	***33%***	***43%***	***8%***
Technical employee	6%	8%	11%	1%
Junior specialist	3%	13%	11%	1%
Senior specialist	4%	11%	13%	1%
Mid-level manager	3%	0%	4%	1%
Top-level manager	0%	1%	3%	1%
Other (project manager)	0%	0%	1%	1%
Educational level	***15%***	***33%***	***43%***	***8%***
Secondary education	0%	1%	0%	1%
Vocational / applied higher education	0%	0%	3%	0%
Bachelor	7%	10%	7%	3%
Master	4%	13%	25%	0%
Doctor	1%	4%	7%	4%
Pursuing degree studies	3%	6%	1%	0%

Table 20 - Professional skills and employee characteristics

Evaluating the level of professional skills against the position of employees, there is no trend to support the assumption that higher position upon recruitment means better professional skills. Regarding some positions (e.g. top-level managers, project managers) we can conclude that good or very good professional skills are preferred and the employees with weak skills are generally not hired for these posts. On the other hand, the professional skills of technical employees, junior and senior specialists are rather equally at average or good level, although there are also some employees with weak skills hired for all of these posts (on average 5% of the respondents of each group). This refers to rather homogeneous professional skills of the employees at specialist level (including technical function). However, this also reflects the limited opportunities of the labour market of Estonian archaeologists – there are many archaeologists whose skills would enable them to work in higher positions but who are hired for technical posts due to the lack of resources and opportunities in order to provide them with professional employment at least to some extent.

When it comes to the linkage between the level of education and professional skills, the research results show that the majority of the employees with good professional skills have a Master's degree (80%). The majority of the employees with average professional skills have either a Master's degree

or a Bachelor's degree (respectively 38% and 29%). The employees with a Bachelor's degree dominate among the employees with weak professional skills – their share is 45% of all the respondents who indicated weak professional skills upon their recruitment. Evaluating the responses of the employees with Bachelor or Master degrees it should be noted that 84% of the respondents who had a Bachelor's degree continued their studies at Master level and 57% of the respondents who had a Master's degree continued their studies at Doctorate level at the time of the research.

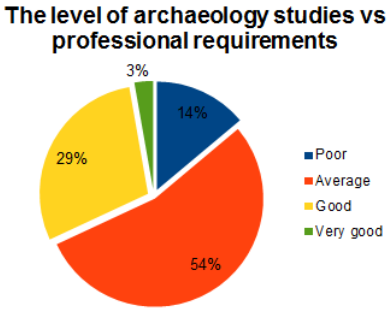

Figure 20 - The studies of archaeology versus professional requirements

In the course of the research, the conformity of the level of archaeological education and the professional requirements at work was examined. The research results are dominated by the opinion that there are both positive aspects and shortfalls. More than 60% of the respondents with weak and average skills and about 50% of the respondents with good professional skills find that the level of archaeological education provided by the universities is average. 32% of all the respondents indicate that the level of archaeological education corresponds well or very well to professional requirements. On the other hand, 14% of the respondents find that the level of education matches professional requirements poorly. We can conclude that a large share (68%) of the respondents have identified at least moderate shortfalls in the skills of the archaeologists graduating from universities. Only very few (3%) find that they are fully satisfied with the level of education of young archaeologists. This allows the conclusion that archaeologists would need to increase their competence for entering the labour market but the archaeological education provided by universities does not unfortunately enable them to acquire all the skills expected by the employers upon their recruitment.

The level of professional skills upon recruitment	Weak	Average	Good	Very good
The level of education versus professional requirements	***15%***	***33%***	***43%***	***8%***
Poor	4%	4%	6%	0%
Average	10%	21%	21%	3%
Good	1%	8%	15%	4%
Very good	0%	0%	1%	1%

Table 21 - Professional skills and the studies of archaeology

The shortage of skills indicated by the respondents can be classified as follows:

1) administrative skills (incl. managerial, legal and heritage issues, administration law, document handling, budgeting);
2) practical skills of archaeological field work (incl. measuring, drafting and drawing, documenting);
3) general management (incl. coordination, team work);
4) public relations (incl. public presentations, media communication);
5) research work (incl. research methodology, academic writing);
6) foreign languages;
7) technical knowledge and skills (incl. geoinformation system, databases, digital graphics, sonar works);
8) knowledge in natural science (incl. chemistry and micro-biology);
9) knowledge of findings;
10) practical museology;
11) teaching and tutoring;
12) indoor work (incl. conservation, numbering, list preparation).

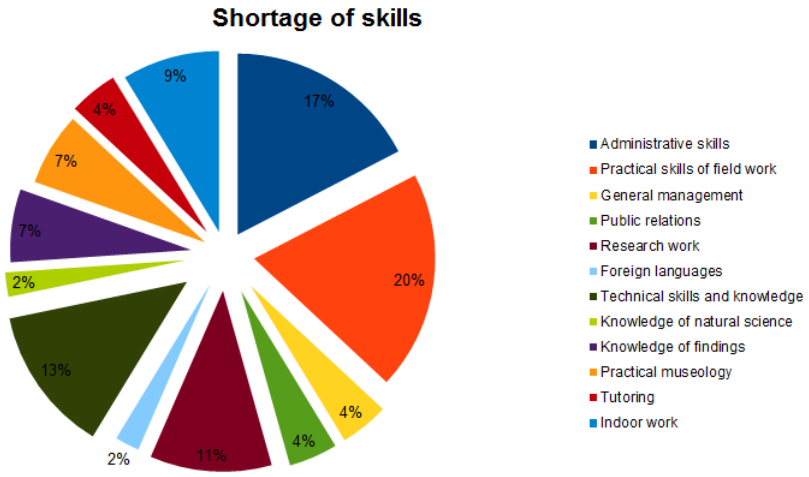

Figure 21 - Shortage of skills upon recruitment

The research results suggest that upon entering into the labour market Estonian archaeologists mainly lack direct practical skills of the profession and the support skills related to formal documentation and organisation because the respondents pointed out the skills of practical field work (20%) and different administrative skills (17%) as the most important items in the list of shortfalls. This indicates that there are certain gaps in the education of Estonian archaeologists to cope with some practical and formal issues. The next important shortage of skills is the lack of technical knowledge (13%) and research work (11%). The first one of them contains quite specific issues which are usually not covered by the

regular degree-level studies of archaeology. Given the function of the profession, ordinary profile and content of the position of an archaeologist, it is quite understandable that educational institutions provide archaeologists with general training (although it also needs to be very practical) while preparing an employee in respect of specific issues, which set special requirements to the positions necessary for certain employers, is to be done by the employer.

When it comes to the shortage of skills in relation to research work, it is necessary to take into account the fact that a large share of the respondents are employed by educational and research institutions in which research work is an inseparable part of very many job positions and also expected from students who are only in the process of pursuing their degree. Although the methodology of science and academic writing are subject to a lot of attention in the training of archaeologists, the respective needs of a research institution as an employer are clearly great. Also, it is important to consider that Estonian archaeology is very concentrated and its community is small. Therefore, it is expected that in addition to excavation reports archaeologists would provide information in the form of a publication about their most important or interesting excavations also to others in the profession and to general public. Thus, it is very common in Estonian archaeology that most of the practising archaeologists now and then publish articles about their work, regardless the fact that these articles are not prepared directly as part of academic work at a research institution. Respectively, the need of archaeologists for the skills of academic writing is understandable.

In addition to shortage of skills of the respondents, the research also analysed the shortage of skills in the field of archaeology in general, both in respect of direct archaeological functions and the support functions to archaeology. For this reason it was examined whether the employer organisation has outsourced external consultants or specialists in the last year to perform specific archaeological functions or more general support functions to archaeology.

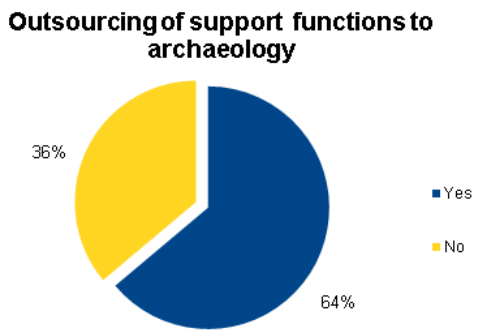

Figure 22 - Shortage of skills in the support functions to archaeology

64% of the respondents indicated a need for the outsourcing of the support functions to archaeology by their employer in the last year. The most important support function which was outsourced by the employers, using external consultants or specialists, was information technology (35%). The second important outsourced service was training activities, although with much lower share (18%) among the outsourced functions. This coincides with the analysis presented earlier in this report about the training capability of the employers of Estonian archaeologists. Other outsourced support functions to be mentioned are foreign languages (11%) and project management (10%). Estonian archaeology is a very local discipline and practical professional work does not require other language skills besides Estonian. The need for foreign languages arises mostly in the context of academic writing, collection of information in foreign languages and cross-border communication. Therefore, the share of language skills as a support function among outsourced services is not overly important and does not hinder working as an archaeologist.

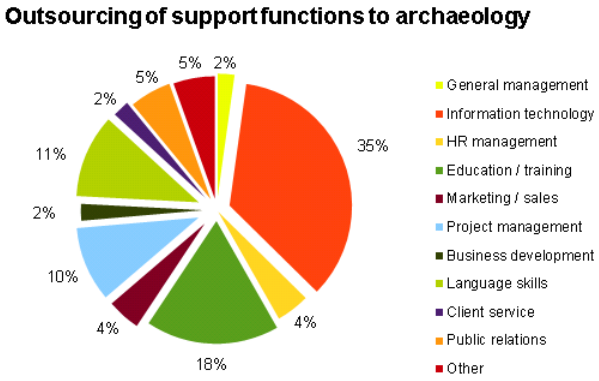

Figure 23 - Outsourced support functions

Additionally, the respondents mentioned several other outsourced support functions but their share among all the outsourced support functions was small. Other outsourced support functions reflected in Figure 23 with their share about 5% of all the outsourced functions contain such rather specific skills as construction surveying, practical instructions on the usage of new equipment and architecture but also general administrative functions such as accounting.

The research results show that there is even more need for the outsourcing of specific archaeological functions than support functions. A very large share (76%) of the respondents noted that in the course of the last year their employer organisation has used external consultants and specialists to perform different archaeological functions. This indicates that the employers of the field have quite significant shortage of archaeological know-how and skills to perform certain archaeological functions. Therefore, it is necessary to outsource the lacking know-how in addition to own employees.

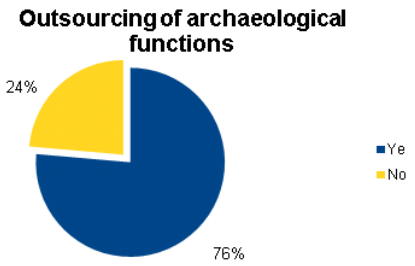

Figure 24 - Shortage of skills in archaeological functions

The major archaeological skills outsourced by the employers of Estonian archaeologists from outside of their organisation are the study and conservation of artefacts and ecofacts (the respective shares 18% and 16% of the outsourced archaeological functions). This probably results from the fact that the education of Estonian archaeologists does not set focus on conservation and these skills are acquired only superficially. Therefore, the function of conservation is mainly performed by the specialists of some other discipline or technical training.

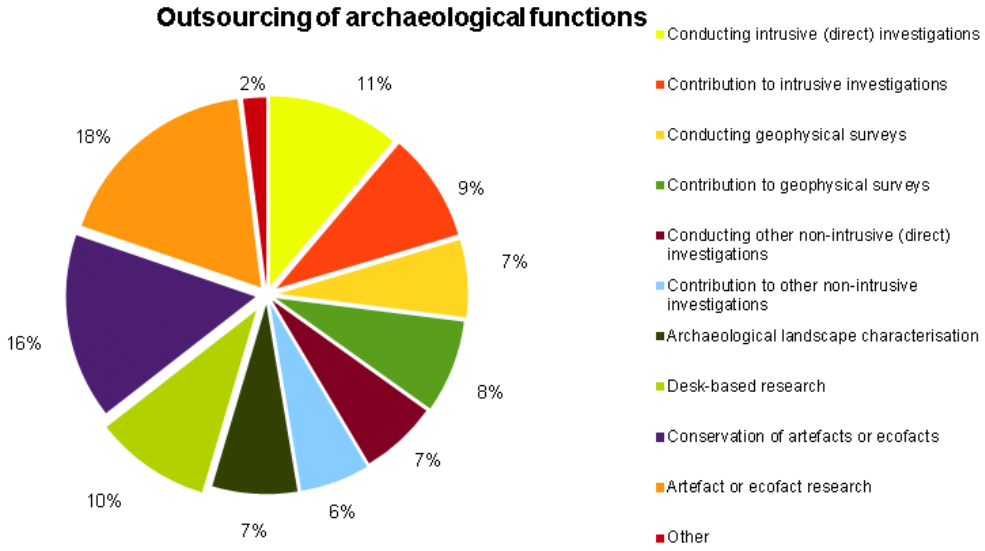

Figure 25 - Outsourced archaeological functions

The next important skills to outsource are the conducting of intrusive (direct) investigations (evaluation, excavations) with their share of about 11% of the outsourced functions and desk-based research work with its share about 10% of the outsourced functions. In-house shortage of the skills of intrusive (direct) investigations and contribution to them deserve attention also because their aggregated share in the outsourced functions is 20%. This indicates that the employers of Estonian archaeologists have sufficient need for the employees with good practical skills who would be able to carry out field work according to modern methodology. Comparing such results with the view of

Estonian archaeologists on their professional skills and identified shortfalls, we can conclude that the shortage of skills of the respondents with regard to archaeological field work and the need of the employers for outsourcing the same competence correspond to each other – the skill of practical archaeological investigations is the major shortfall of professional skills of the respondents. The rest of the shortfalls of archaeological skills were of smaller significance. Other competences (2%), required additionally by the employer organisations, are very specific – these include, for example, the development of databases on archaeological material, underwater works and related services of diving, and the creation of archaeological exposition.

On the basis of the research results we can conclude that the employers of the field have in-house shortage of all regular professional competences and they are in need of outsourcing the respective services. However, the need for different archaeological skills, and in particular the outsourcing of very specific functions, does not only reflect the structural deficiencies of the employers but also derives from the knowingly efficient arrangement of work by the employers: all one-time or little-used competences, which are not the core activity of the employer, are outsourced in case of need instead of keeping them regularly and permanently in the organisation. We shouldn't forget that against limited resources, competences are first and foremost the matter of strategic choices and the employers need to find the most cost-efficient way, although it might mean continuous in-house shortage of some necessary competences.

Professional Development Opportunities

For 25% of the respondents their current place of employment is their very first employment in the field of archaeology. More than 60% of such respondents are older than 30 years and about 50% of them have work experience of more than 5 years. About 8% of all the respondents with work experience in the field of archaeology of more than 10 years continuously work in their first place of employment at the same employer. This indicates the static nature of Estonian archaeology mainly among older and more experienced archaeologists. More than 65% of the respondents, whose current place of employment is at least the second employment in their career, have work experience of more than 5 years. Almost half of such employees are less than 30 years old. This indicates that younger archaeologists are more dynamic and their mobility between jobs is higher. More than 80% of the respondents, whose current place of employment is the first employment in their career, have higher education. 55% of them are pursuing either their Doctorate or Master studies. This allows us to conclude that Estonian archaeologists enter the labour market rather early and often next to their

degree studies; thus, probably on the basis of theoretical knowledge rather than on the basis of earlier practical experience.

Current place of employment			
	First	Second	Third or more
Age	***25%***	***39%***	***36%***
Up to 20 years	1%	0%	0%
20-29	8%	15%	19%
30-39	10%	11%	11%
40-49	6%	7%	3%
50-59	0%	6%	0%
60 years and older	0%	0%	3%
Work experience in archaeology	***25%***	***39%***	***36%***
Less than 1 year	3%	1%	0%
1-3 years	6%	7%	4%
3-5 years	4%	4%	8%
5-10 years	4%	4%	14%
10-20 years	4%	11%	4%
More than 20 years	4%	11%	6%
Education	***25%***	***39%***	***36%***
Secondary education	0%	1%	1%
Vocational education	0%	3%	0%
Higher education (academic degree)	21%	31%	32%
Pursuing higher education	4%	4%	3%

Table 22 - The current place of employment and employee characteristics

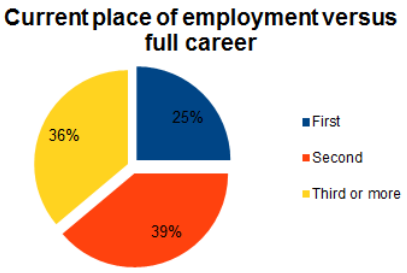

Figure 26 - The current place of employment

In the course of the research it was examined how Estonian archaeologists perceive their career options at their current place of employment, what the main obstacles to their career development are and whether there is inter-relation between the career obstacles, level of education and employment status of the archaeologists. The negative side of the results is that more than half of the respondents have very few or no career opportunities at their current place of employment. Only 15% of the respondents considered their career opportunities good. Only 6% of the respondents found that there are no obstacles to their professional career development. Comparing the results with the reasons for career obstacles we can conclude that the weaknesses of the organisational structure of the employer are one of the major obstacles to the career development of Estonian archaeologists. This mainly relates to the situations of too rigid structure of the employer, the lack of suitable positions and rotation options. Therefore, it is often not possible for good specialists to achieve higher position

within their organisation and they are limited to specialist level in their career, regardless their long-term experience, suitable education and skills. In the context of only limited number of employers providing permanent employment options in the field of archaeology, it is understandable that inter-institutional mobility is low. Permanently employed specialists and manager are not willing to change their jobs without a good reason and the alternatives of mobility/rotation are rare.

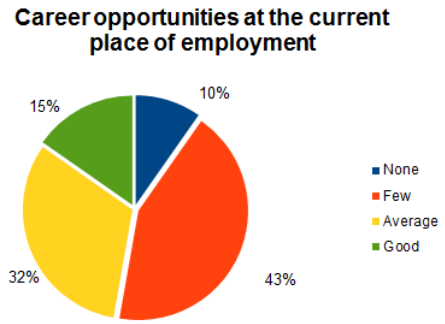

Figure 27 - Career opportunities

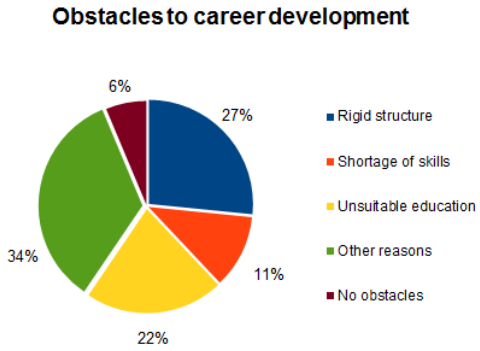

Figure 28 - Obstacles to professional career development

The respondents find that the major personal obstacle to the development of professional career is unsuitable education (22%). Shortage of skills is not so significant, these were indicated only by 11% of the respondents. It is interesting to note that other reasons have the largest share - 34% of all the responses. The clarifications provided therewith show that personal reasons (10% of all the responses) – first and foremost the lack of motivation or aspirations, low stress tolerance and age – play an important role among other reasons. Also, there are some aspects indicated among other reasons which actually relate to the weaknesses of organisational structure: for example, too small employer organisation, already achieved highest position in the organisation, prejudice, lack of vacant positions and very few job notices. These indirect organisational reasons constitute 15% of all the responses but together with the responses which directly indicate too rigid organisational structure, the share of organisational weaknesses among the obstacles to professional career is significant – altogether 42% of the responses. This supports the conclusion drawn already earlier: the labour market of Estonian

archaeologists is closed and static, the number of employers providing permanent employment is limited, and there are only few vacancies and job notices.

An interesting aspect to describe Estonian archaeology is the indication provided by quite a few respondents in their additional comments regarding the overly project-based nature and large dependence on such temporary financing of archaeology. This is seen as another obstacle to the development of professional career of Estonian archaeologists. Too much dependence on project-based financing is considered negative mainly because of only little predictability of employment, related uncertainty of many archaeologists in respect of their career and labour market. The share of responses highlighting such specifics of the field is 6% of all the responses.

In this context it is important to highlight that the national principles of the financing of science in Estonia were changed in 2014. This has an impact also on the archaeologists working in educational and research institutions and their labour market outlook. Similar to the new system, the financing of academic archaeology has also earlier been project-based. However, according to the changed national principles[14] a smaller number of large research projects will be preferred in the future in order to increase the quality of science. Also, more focus will be put on the sciences with "practical" value for the economy and development of Estonia. Although the total state financing of science was not decreased, it will be difficult to receive funding for the projects of the discipline of Archaeology in the future. On one hand, the new system is likely to change science and in particular the field of humanities, including archaeology, less sustainable. On the other hand, the financing of science will become even more subjective than before. (Sarapik, 2013). It will particularly affect personal research funding which contains only 25 grants for the Estonian science as a whole. While the earlier system provided Estonian archaeologists with 5 personal research grants in 2013 and 7 personal research grants in 2012, the outlook for the next years indicates only 1 personal research grant. For example, the research funding of 2015 contains the funding amount of 490 000 euro for the whole field of Humanities whereas the budget of a solid research project starts from 100 000 euro. When it comes to institutional research funding, the change has resulted in only one institutional research grant directly in the discipline of Archaeology in 2014 while in 2013 there were 3 of them. Respectively, the funding of the discipline of Archaeology at the University of Tallinn decreased by 1/3 starting from 2014, meaning the loss of work for the researchers-archaeologists thereof. In 2015, the research

14 Eesti Teadusagentuuri märgukiri institutsionaalsete uurimistoetuste, tuumiktaristu toetuste ja personaalsete uurimistoetuste 2014. aasta taotlusvooru kohta. Available at: http://www.etag.ee/wp-content/uploads/2014/03/IUT_PUT-märgukiri.pdf (in Estonian) (24.03.2014).

funding in similar proportions will end at the University of Tartu, respectively decreasing the employment opportunities of archaeologists.

Such national choices create very negative outlook because they lead to the conclusion that the number and training of good-quality researchers-archaeologists will dry up in the future in Estonia. The outlook is such that the research funding provided by the state budget will no longer support the increasing trend of Estonian archaeology seen in the past 10-15 years. The peak has been reached. The only way forward in this situation is to carry out research activities in the form of interdisciplinary working groups and with support from private and foreign funding. Similar trends have been seen everywhere in Western Europe.

Obstacles to career development	Rigid structure	Shortage of skills	Unsuitable education	Other reasons	No obstacles
Employee status	***27%***	***11%***	***22%***	***34%***	***6%***
Permanent	23%	6%	18%	28%	4%
Temporary	4%	5%	4%	6%	3%
Educational level	***27%***	***11%***	***22%***	***34%***	***6%***
Secondary education	0%	0%	1%	0%	0%
Vocational education	0%	0%	4%	0%	0%
Higher education (academic degree)	25%	9%	14%	32%	6%
Pursuing higher education	1%	3%	3%	3%	0%

Table 23 - Obstacles to career development versus employee status

Analysing the obstacles to career development against the employment status and educational level of the respondents we can conclude that temporary employees consider the shortage of skills as their most serious obstacle to career development in comparison to other factors. Its share amounts to 44% of all the responses indicating the shortage of skills while other shortfalls only constitute 15-18% of the responses of temporary employees. The greatest problems of permanent employees are related to too rigid structure and other organisational factors. There were only 6% of the respondents who indicated no obstacles to their career development; permanent employees constitute 60% and temporary employees constitute 40% of such responses.

The respondents with secondary and vocational education indicated unsuitable education as the only obstacle to their career development. This confirms that although there are some employees working in the field of archaeology without specialised education, it is necessary to have proper training in archaeology to ensure professional development in Estonia. The respondents with higher education noted the rigid structure of their employer organisation and other organisational factors as their greatest obstacles. This supports the conclusion drawn earlier in this report: there are not enough professional jobs or rotation possibilities for the qualified specialists in Estonian archaeology. Such obstacles as unsuitable education or insufficient skills were considered less important by the archaeologists with higher education.

The career outlook of the employees in Estonian archaeology both in terms of geographic location and job position was also analysed in the course of the research. The results were analysed from the short-term perspective (one year) and from the long-term perspective (outlook in five years). In the short term there is a clear trend of rather static and cautious career outlook of Estonian archaeologists. A very large share of the respondents (95%) indicated that in the period of one year they plan to continue their career in Estonia. Only 5% of the respondents predicted the continuation of their career in some other EU countries. A large share of the respondents (78%) did not foresee any change in their position in the period of one year. Higher position in the same organisation or some other organisation or the same position in some other organisation were indicated only by a few respondents (respectively 4% and 5%).

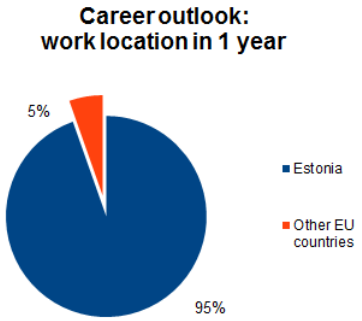

Figure 29 - Work location in one year

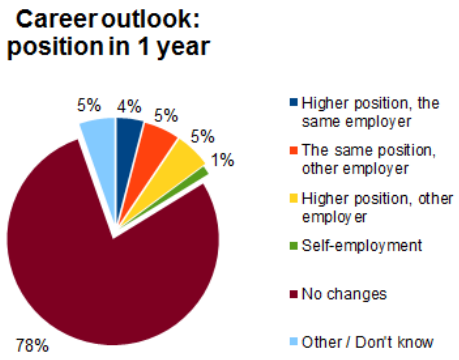

Figure 30 - Job position in one year

In the long run, Estonian archaeologists are much more dynamic and venturous in their career outlook. Although a large share of the respondents (72%) indicated the continuation of their career in Estonia, the change of work location in the period of five years was foreseen in most geographic directions. Besides Estonia the next important geographic location (15% of the respondents) is other EU countries, except Scandinavia and other Baltic states. The least attractive locations for the continuation of archaeological career (1% of the responses) are Russia, Latvia and Lithuania. When it comes to the change of position, the career outlook in the period of 5 years is also more dynamic than the short-term plans of the respondents. Although 53% of the respondents do not foresee any change

in their position, the outlook for the next five years in comparison to the one-year perspective clearly indicates the expectations of professional career development and rotation. 28% of the respondents plan to achieve higher position in their career – 16% of the respondents at some other place of employment and 12% of the respondents at the same place of employment. It is interesting to note the equal share of the respondents who indicated self-employment and the respondents who expect to continue their career at another place of employment but in the same position (respectively 5% both). In comparison, the outlook for the period of one year shows only 5% of the respondents planning to continue their career at another place of employment but in the same position while there are only 1% of the respondents planning self-employment.

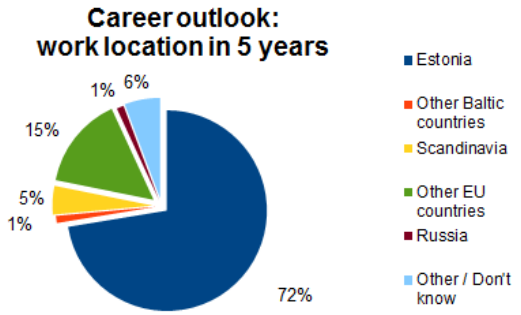

Figure 31 - Work location in five years

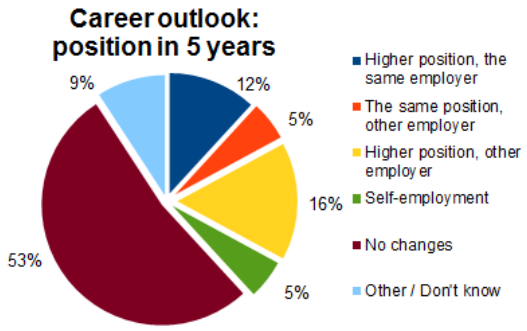

Figure 32 - Job position in five years

An important factor for ensuring career development on the competitive labour market of archaeologists is educational perspective. Drawing a short comparative parallel to the educational outlook of Estonian archaeologists we can notice that a large share of the respondents would not plan any change in their educational level either in the short term or in the long term. In the period of one year only 19% of the respondents plan to start degree-level studies while 76% of the respondents do not plan any changes and 6% of the respondents are uncertain about their plans or have other alternatives (e.g. post-Doctorate or supplementary training abroad). In the period of five years, 87% of the respondents do not plan any changes and only 6% have a certain plan to continue their studies at a degree level.

Although the data on the educational outlook of Estonian archaeologists show fewer changes in comparison to career outlook, we can't conclude on this basis that Estonian archaeologists are static in their educational aspirations. Considering the fact that 80% of the respondents have or are pursuing a Master's or a Doctorate degree, it is obvious that Estonian archaeologists plan fewer changes in their educational outlook because they already have acquired the necessary level of education. Additionally, it should be noted that a large share of the respondents (40%) already have or are pursuing the highest possible level of education (Doctorate degree) and therefore it is understandable that their plans in respect of formal education will be soon completed.

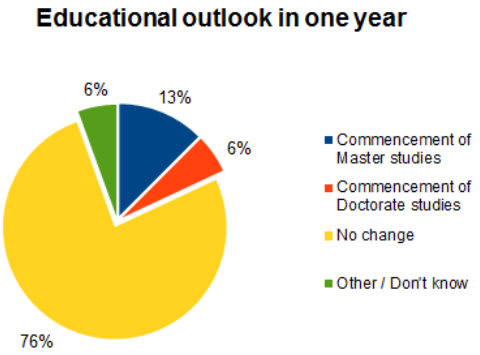

Figure 33 - Educational aspirations in the field of archaeology in one year

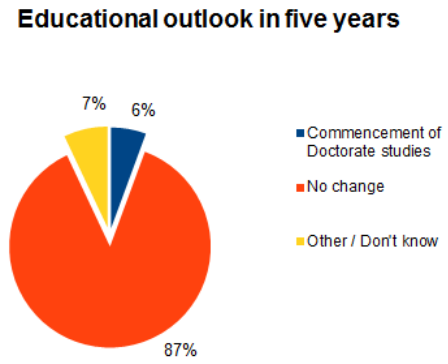

Figure 34 - Educational aspirations in the field of archaeology in five years

Evaluating the career outlook of Estonian archaeologists also by their job positions it can be concluded that managers are the most static category of employees – generally, they foresee no change in their position or work location. This supports the earlier conclusions regarding the limited nature of the labour market of Estonian archaeologists and is logically linked to it. On such competitive market with the limited number of employers there are indeed not many opportunities for the vertical career development of managerial staff. The major alternative for the managers would be self-employment but only one manager-level archaeologist considers this option in the long run. The most ambitious and dynamic category of staff with regard to career development is specialist-level archaeologists. From the perspective of job positions, career development is mostly seen as a vertical change either

achieving a higher position at the current place of employment or at some other place of employment. In five years, 42% of the specialist-level respondents see themselves working in a higher position. When it comes to work location, the career outlook of the respondents in all job positions is dominated by career perspectives related to Estonia. However, the specialist-level employees also foresee career opportunities outside of Estonia and the longer the timeline, the more expectations of cross-border career opportunities. For example, in five years 25% of the specialist-level respondents expect their career to continue in other EU countries or in Scandinavia.

Career outlook in 1 year	Technical employee	Specialist	Manager
Change in job position	***26%***	***58%***	***16%***
Higher position, the same employer	0%	4%	0%
The same position, other employer	3%	3%	0%
Higher position, other employer	0%	5%	0%
Self-employment	1%	0%	0%
No changes	19%	43%	16%
Other / Don't know	3%	3%	0%
Change in work location	***26%***	***58%***	***16%***
Estonia	24%	55%	15%
Other Baltic countries	0%	0%	0%
Scandinavia	0%	0%	0%
Other EU countries	1%	3%	1%
Russia	0%	0%	0%
Other / Don't know	0%	0%	0%

	Secondary and vocational education	Higher education	Pursuing higher education
Change in job position	***5%***	***85%***	***10%***
Higher position, the same employer	0%	4%	0%
The same position, other employer	0%	4%	1%
Higher position, other employer	0%	5%	0%
Self-employment	0%	1%	0%
No changes	5%	65%	9%
Other / Don't know	0%	5%	0%
Change in work location	***5%***	***85%***	***10%***
Estonia	5%	80%	10%
Other Baltic countries	0%	0%	0%
Scandinavia	0%	0%	0%
Other EU countries	0%	5%	0%
Russia	0%	0%	0%
Other / Don't know	0%	0%	0%

	Up to 29	30-49	50 and older
Change in job position	***45%***	***47%***	***8%***
Higher position, the same employer	3%	1%	0%
The same position, other employer	1%	4%	0%
Higher position, other employer	3%	3%	0%
Self-employment	0%	1%	0%
No changes	34%	36%	8%
Other / Don't know	4%	1%	0%
Change in work location	***46%***	***46%***	***8%***
Estonia	42%	46%	8%
Other Baltic countries	0%	0%	0%
Scandinavia	0%	0%	0%
Other EU countries	4%	0%	0%
Russia	0%	0%	0%
Other / Don't know	0%	0%	0%

Table 24 - Professional career, short-term outlook

As a general conclusion, the above results also indicate that Estonian archaeologists are unfortunately little enterprising – in five years only 5% of the respondents consider self-employment. The majority of such respondents are technical employees. It is interesting to note that the specialist-level

respondents do not consider self-employment as a career option at all. Partially, the starting of entrepreneurship in the field of archaeology is certainly limited by its specific risks: the seasonal market, low demand, limited payment capacity and relatively high input costs (the field of archaeology requires a lot of human resources, specific tools and methods which are often rather costly). On the other hand, the increased enterprisingness of archaeologists and their willingness to take risks would make their labour market more flexible and add thereby long-term extra value to the profession and the economic environment as a whole. In addition to "pure" practical archaeology (i.e. mostly excavations) there are opportunities for rendering very different services in relation to archaeology, primarily combining it with creative industries. Since the facilitation of creative industries is one of the priorities of the European Union, and respectively of Estonia, the development of creative industries on the basis of archaeology could be subject to structural state/EU support both in terms of consulting and infrastructure.

Career outlook in 5 years	Technical employee	Specialist	Manager
Change in job position	***25%***	***59%***	***16%***
Higher position, the same employer	1%	11%	0%
The same position, other employer	1%	4%	0%
Higher position, other employer	1%	14%	0%
Self-employment	4%	0%	1%
No changes	13%	26%	13%
Other / Don't know	4%	4%	1%
Change in work location	***29%***	***56%***	***15%***
Estonia	20%	40%	13%
Other Baltic countries	1%	0%	0%
Scandinavia	1%	3%	0%
Other EU countries	2%	11%	1%
Russia	1%	0%	0%
Other / Don't know	3%	1%	1%

	Secondary and vocational education	Higher education	Pursuing higher education
Change in job position	***1%***	***86%***	***13%***
Higher position, the same employer	0%	12%	0%
The same position, other employer	0%	5%	0%
Higher position, other employer	0%	14%	1%
Self-employment	0%	5%	0%
No changes	0%	41%	12%
Other / Don't know	1%	8%	0%
Change in work location	***5%***	***86%***	***9%***
Estonia	5%	61%	7%
Other Baltic countries	0%	1%	0%
Scandinavia	0%	3%	1%
Other EU countries	0%	14%	1%
Russia	0%	1%	0%
Other / Don't know	0%	6%	0%

	Up to 29	30-49	50 and older
Change in job position	***45%***	***47%***	***8%***
Higher position, the same employer	7%	5%	0%
The same position, other employer	1%	4%	0%
Higher position, other employer	9%	7%	0%
Self-employment	3%	3%	0%
No changes	20%	26%	7%
Other / Don't know	5%	3%	1%
Change in work location	***47%***	***46%***	***7%***
Estonia	31%	36%	6%
Other Baltic countries	0%	1%	0%
Scandinavia	2%	2%	0%
Other EU countries	10%	5%	0%
Russia	0%	1%	0%
Other / Don't know	3%	1%	1%

Table 25 - Professional career, long-term outlook

Analysing the career outlook of archaeologists in the context of their education and age, it is hardly surprising to conclude that the biggest career development is expected by the employees with higher education. The longer the timeline, the better outlook for career development. For example, in one year 17% of the respondents with higher education foresee the continuation of their career in the same position at another place of employment, in a higher position at the same or some other place of employment or becoming self-employed. In five years, 43% of the respondents foresee the development of their career in these directions.

The forecast of horizontal development (i.e. the same position at the same place of employment) of the respondents with higher education is at the same level both in the short term and in the long term. There is an increase in the share of other alternatives of career development in the long run mainly on the account of the respondents who do not yet plan any changes in the period of 1 year. The change in work location is also mainly foreseen by the employees with higher education while the employees with secondary or vocational education link their career very strongly only to Estonia. This is probably related to the fact that the employees with higher education usually possess better language skills and often have experience with studies in a foreign country or international cooperation (including participation at different archaeological projects abroad). Therefore, their future career development in other countries is easier to be predicted and achieved.

In the period of one year, the alternatives of achieving a higher job position or becoming self-employed are foreseen similarly by the employees who are up to 29 years old and the employees of 30-49 years of age. In the long run, such alternatives are more favoured by the respondents who are younger than 30 years (19% of the respondents). On the other hand, the archaeologists of 50 years of age and older do not plan any changes at all; only one of the respondents of this age group has indicated retirement as an expected change in the long run. When it comes to work location, young archaeologists naturally constitute the most dynamic group. The longer the timeline, the more cross-border career options expected. For example, in one year only 5% of the respondents (all younger than 30 years) foresee the continuation of their career outside of Estonia. However, in five years more than 20% of the respondents expect to continue their career abroad (about 2/3 of them younger than 30 years and about 1/3 of them between 30-49 years of age).

6. Other Remarks

For adding more qualitative value, the research contained also some open questions and sections for providing free-form comments. This enabled the respondents to clarify some specific questions and to complement the research as a whole, drawing attention to problems and experience-based opinions about the labour market of archaeologists. Below we present an overview of the most content-rich remarks and comments which would help supplement our view of the current situation, bottlenecks and major problems identified in relation to Estonian archaeology. Also, the comments provided by the respondents support the main conclusions of the analysis presented earlier in this report.

Overly project-based and under-financed archaeology

The respondents have pointed out that the major problems of the labour market of Estonian archaeologists are too much dependence on project-based funding and the general salary level of the field, which is quite low, considering the specifics of the field:

> *"The biggest problem is the low level of state financing of the field. In large, the wages of archaeologists are related to different projects which create mainly temporary jobs. Many job positions directly derive from the interest and willingness of manager-level archaeologists to initiate and prepare different projects. There is much work and there are many people interested in doing it, but there are not enough financial resources."* (Female 40-49, full-time mid-level manager with a Master's degree, Tartu).

> *"There are only few employees in the field of archaeology whose gross salary is more than 1000 or 1500 euro. Actual salary levels are rather low and have remained unchanged for years. Also, the project-based financing of archaeology is problematic. It does not ensure sustainable employment and makes the career outlook of many archaeologists uncertain in the long run."* (Female 30-39, part-time senior specialist with a Master's degree, Tartu).

> *"Too many archaeologists work in "secure" positions of low income (e.g. at museums or state agencies) while the research work at universities is mainly project-based and therefore somewhat tangled."* (Male 20-29, full-time senior specialist pursuing Doctorate studies, Tallinn).

Structural problems of specialisation

The respondents have indicated that the labour market and training of Estonian archaeologists can be characterised by some structural imbalance in respect of specialisation. On one hand, there is a lack of specialists with certain specific skills; on the other hand, there is "overproduction" of specialists in some areas of archaeology:

> *"There is a lack of good specialists in urban and historical archaeology while there is "overproduction" of specialists of the archaeology of earlier Ages. At the same time universities do not draw sufficient attention to historical archaeology (incl. practical skills and ability to work with sources)."* (Male 20-29, full-time senior specialist pursuing Doctorate studies, Tallinn).

> *"There are not enough people educated to work in the conservation of archaeological material. It is not possible to obtain such education in Estonia."* (Female 30-39, part-time senior specialist pursuing a Bachelor's degree, Tartu).

Assessing the opinions about the structural imbalance between urban and rural archaeology, we believe that the lack of good specialists in the field of urban archaeology does not reflect so much the specifics of training of both areas than the fact that urban archaeology is more demanding in terms of skills than rural archaeology. For this reason many archaeologists choose to specialise in rural archaeology although teaching of the methodologies of both fields is similarly thorough. Also, the practical point is that many archaeologists initially specializing in urban archaeology switch to rural archaeology or some other areas of archaeology in the course of time. In this context we need to consider that urban archaeology is usually mostly related to rescue excavations which require quite a specific life style – a very high level of flexibility and readiness to react immediately in case of need. Many archaeologists are not able to adapt to such nature of work and therefore Estonian archaeology can be characterised by the constant lack of archaeologists focusing on rescue excavations.

The labour market and development possibilities of archaeologists are small and unpredictable

The respondents have highlighted that the career outlook and labour market of Estonian archaeologists can be described as uncertain, unpredictable and largely dependent on chance; also, the labour market is static:

> *"The plans for pursuing education and career in archaeology unfortunately mainly depend on chance."* (Male 40-49, full-time senior specialist with a Master's degree, Tallinn).

" - *The lack of financial certainty (even if a person has educated him/herself on the encouragement of potential employers, there is nevertheless not enough certainty about finding a challenging job with a sufficient salary to cover his/her earlier costs of education);*
- *Low mobility of people working in permanent positions and high degree of uncertainty related to project-based jobs;*
- *It is not possible to become self-employed without a Doctorate degree or sufficient financial capital;*
- *The soon-to-be graduates of Archaeology now look more across borders because they do not foresee professionally developing and certain employment in Estonia;*
- *The low level of activeness of the archaeologists working at educational and research institutions and the lack of competition between the practising archaeologists who already have a steady job are the problems of the field."* (Female 20-29, temporary junior specialist pursuing a Master's degree, Tartu).

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Annex 1 – Cover Letter and Questionnaire

Discovering the Archaeologists of Europe 2014 – ESTONIA

Dear Colleague,

"Discovering the Archaeologists of Europe" is a research project which aims at the collection and distribution of information about the employment of archaeologists in Europe and the establishment of basis for understanding and enhancing the current situation of the profession. The project involves 21 partners from 19 European countries, including MTÜ Arheopolis as the representative of Estonia.

In Estonia, all people performing archaeological functions or the support functions to archaeology are invited to participate at the research. The research would contribute to the transparency of qualifications and the cross-border mobility of archaeologists both at national and the European level. In the course of the research the situation and trends of employment in archaeology, including the nature of professional activities and training needs of Estonian archaeologists shall be mapped. The research results shall be compiled into a research which is targeted to archaeologists, their employers, educational institutions and legislative bodies, providing an overview of opportunities and needs of the labour market in archaeology and helping create future strategies.

We hereby invite you to participate at the research and ask you to fill in a questionnaire available at the attached link. We kindly ask you to base yourself on the data as at 01.01.2013. In case you need any assistance in completing the questionnaire, please contact us by sending a responding e-mail. After the receipt of the data all answers shall be coded and they shall remain anonymous. Your contact details indicated in the questionnaire shall be used only to clarify your answers, if necessary. MTÜ Arheopolis shall ensure full confidentiality of all respondents and the anonymity of any received data.

We thank you in advance for your contribution.

With kind regards,

Name
Position

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Elukestva õppe programm

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Discovering the Archaeologists of Europe 2012-2014: ESTONIA

This questionnaire is designed to obtain information relating to people working in the field of archaeology and its support functions in Estonia. Please complete the questionnaire, using information that applied to you and your organisation as at ***1 January 2013****.*

PART I: EMPLOYEE

1.1. Profile

Please provide data about yourself						
Age	Up to 20	20-29	30-39	40-49	50-59	60 and older
Gender	Female			Male		
Nationality	Estonian	Russian		Other (please specify)		
Major geographic area of employment	Outside Estonia	Tallinn	Tartu	Other city or county (please specify)		
Working experience in positions related to archaeology, incl support functions (incl experience at your current employer)	Less than 1 year	1-3 years	3-5 years	5-10 years	10-20 years	More than 20 years

1.2. Place of employment

Please indicate the status of your employer	State	Local government	Educational/ research institution	Commercial enterprise	Freelancer	Other (please specify)
Please indicate the nature of your position	Position directly related to archaeology			Support function		
Please indicate the level of your position	Technical employee	Junior specialist	Senior specialist	Mid-level manager	Top-level manager	Other (please specify)
Please indicate your working experience at your current employer (incl both positions directly related to archaeology and support functions)	Less than 1 year	1-3 years	3-5 years	5-10 years	10-20 years	More than 20 years
Please indicate the type of your employment	Full time employment contract	Part-time employment contract	Project based service contract (incl seasonal work)	Employment contract for temporary replacement		Other (please specify)
Please specify your hours of employment	Full time, i.e. 176 hours per month	Part-time (please indicate the number of working hours per month)	Project based (please indicate the average number of working hours per month)	Seasonal from June to September (please indicate the average number of working hours per month)	Extra work (please indicate the average number of working hours per month)	Other (please specify)
Please indicate the range of your monthly salary at your current employer (gross)	Up to EUR 250	EUR 250 – 500	EUR 500-1000	EUR 1000-1500	More than EUR 1500	
Does your organisation provide you with a possibility to earn bonuses for good work performance ?	Yes, up to EUR 100 annually	Yes, EUR 100-500 annually	Yes, more than EUR 500 annually	No		

1.3. Education

Level of education	Secondary education	Specialised secondary/ applied higher education	Baccalaureus	Master	Doctor	Still studying (please specify the level of your studies)	Other (please specify)
The major field of your higher education/current studies	Archaeology		Other (please specify)		None		
Country/countries in which you have obtained your education / are currently studying (incl student exchange)	Estonia		Other (please specify)				

1.4. Training needs

Which number of jobs in relation to archaeology is your employment at your current employer?	First	Second	Third or more	
How much training did your current employer provide you with directly after the start of your employment?	None	A little	Moderate	A lot
In your opinion, how good were your professional skills upon the start of your current employment?	Weak	Average	Good	Very good
In your opinion, how well does the level of courses provided currently at educational institutions meet the requirements of your position?	Poorly	On average	Well	Very well
Which professional skills you felt were lacking upon the start of your current employment?				
How much have the training activities of your current employer helped decrease the mentioned lack of professional skills during the time of your employment?	Not at all	A little	Moderately	Much

1.5. Training and development opportunities

Are you provided with training or other development opportunities?	Yes	No	
*If **yes** to the question above, how is your development arranged? – tick all that apply*	**Training activities in your employer organisation**		
Formal off-job training [e.g. outside training courses]			
Formal in-job training [e.g. in-house training course]			
Informal off-job training [e.g. supported individual research and learning]			
Informal in-job training [e.g. mentoring)			

	Yes	No	Don't know
Does your employer organisation have a formal training plan?			
Does your employer organisation have a training budget?			
Does your employer organisation record how much time you spend training?			
Does your employer organisation formally evaluate the impact of training on you?			
Does your employer organisation operate a performance appraisal scheme?			
In your opinion, does your employer organisation encourage you to engage in continuing professional development?			

How big are your career opportunities in your employer organisation?	None	Small	Average	Big
What are the major obstacles to the development of your career in your employer organisation?	Inflexible organisational structure	Gaps in professional skills	Unsuitable education	Other (please specify)

1.6. Future perspectives

Do you plan to develop your education in the field of archaeology in 1 year?	Yes, I shall start baccalaureus studies	Yes, I shall start master studies	Yes, I shall start doctorate studies	No	Other (pleas specify)	
Do you plan to develop your education in the field of archaeology in 3 years?	Yes, I shall start baccalaureus studies	Yes, I shall start master studies	Yes, I shall start doctorate studies	No	Other (pleas specify)	
Do you plan to develop your education in the field of archaeology in 5 years?	Yes, I shall start baccalaureus studies	Yes, I shall start master studies	Yes, I shall start doctorate studies	No	Other (pleas specify)	
Do you plan a change in your professional career in 1 year?	Yes, higher position in the same organisation	Yes, similar position in a different organisation	Yes, higher position in a different organisation	Yes, I plan to become my own employer	No	Other (please specify)
Do you plan a change in your professional career in 3 years?	Yes, higher position in the same organisation	Yes, similar position in a different organisation	Yes, higher position in a different organisation	Yes, I plan to become my own employer	No	Other (please specify)
Do you plan a change in your professional career in 5 years?	Yes, higher position in the same organisation	Yes, similar position in a different organisation	Yes, higher position in a different organisation	Yes, I plan to become my own employer	No	Other (please specify)
In which location do you plan to continue your career in 1 year?	Estonia	Other Baltic states	Scandinavia	Other EU country	Russia	Other (please specify)
In which location do you plan to continue your career in 3 years?	Estonia	Other Baltic states	Scandinavia	Other EU country	Russia	Other (please specify)
In which location do you plan to continue your career in 5 years?	Estonia	Other Baltic states	Scandinavia	Other EU country	Russia	Other (please specify)

PART II: ORGANISATION

2.1. Organisational structure and role

Please tick one box that best describes the structural basis and principal role of your employer organisation	Principal role					
	Field investigation and research services	Heritage protection and related information services	Museum and visitor services	Educational and academic research services	Freelancer	Other (please specify)

2.2. Geographical location

Please tick one box to indicate where your employer organisation is based	1. The city of Tartu	
	2. Tartumaa	
	3. The city of Tallinn	
	4. Harjumaa	
	5. Viljandimaa	
	6. Valgamaa	
	7. Võrumaa	
	8. Põlvamaa	
	9. Jõgevamaa	
	10. Järvamaa	
	11. Pärnumaa	
	12. Saaremaa	
	13. Hiiumaa	
	14. Läänemaa	
	15.Raplamaa	
	16.Lääne-Virumaa	
	17. Ida-Virumaa	
Other [please specify including whether EU or non-EU]	EU/non-EU	

2.3. Number of staff

Please indicate the number of statt at your current employer organisation	Up to 10 employees	11-25 employees	26-50 employees	51-100 employees	More than 100 employees

Please indicate how the numbers of staff have changed over the last few years in your current employer organisation					
	How did the numbers employed by your organisation **one year ago** (**2012**) compare with the present? (E.g. circle more if there were more employees one year ago etc.)				
	Number of staff	More	The same	Fewer	Don't know
	How did the numbers employed by your organisation **three years ago** (**2010**) compare with the present?				
	Number of staff	More	The same	Fewer	Don't know
	How did the numbers employed by your organisation **five years ago** (**2008**) compare with the present?				
	Number of staff	More	The same	Fewer	Don't know

2.4. Staff specifics

	None	Up to 5	6 – 10	11 – 25	26-50	More than 50	Don't know
Please indicate the number of employees originating from outside of Estonia who work in your employer organisation?							
Please indicate the number of disabled employees working in your employer organisation?							
In case there are employees originating from outside of Estonia who work for your employer organisation, please indicate their country origin							

2.5. Employee rights / benefits

	Yes	No	Don't know
Do employees receive more than 28 calendar days paid holiday leave per annum in your employer organisation?			
Do employees in your employer organisation receive the opportunity to take paid study leave?			
Do employees in your employer organisation receive the opportunity to take paid "health days" in addition to statutory sickness leave?			
Do employees in your employer organisation receive the opportunity to take additional paid leave on certain family events (marriage, death of a close relative, etc)?			
Do employees in your employer organisation receive the opportunity to take unpaid maternity/paternity leave in addition to statutory maternity/paternity leave?			
Do employees in your employer organisation receive the opportunity to take unpaid study leave?			
Are employees in your employer organisation provided with the opportunity to partial working time, distance work or other flexible working arrangements?			
Are employees in your employer organisation provided with subsidised / partially subsidised accommodation or subsistence allowance			

Please give details of any other employee benefits which your employer organisation provides [e.g. reimbursement of personal car costs, use of sporting facilities, etc).

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2.6. Salaries

*Are salaries within your employer organisation tied to any scale system? If **yes,** then please indicate the type of scale system in use*	Civil service (central government)	
	Local authority (local government)	
	Educational / academic institution	
	Locally defined / own scale	
	Other (please specify)	
	No	
	Don't know	

2.7. Skills gaps

To your knowledge, has your employer organisation brought in outside specialists or consultants in the last year for specific non-archaeological purposes? If so, please indicate in which areas they contributed to the work of your organisation	Leadership		Project management	
	Information technology		Business skills	
	People management		Languages	
	Education / training		Customer care	
	Marketing / sales		Advocacy / influencing others	
	Other (please specify)			

To your knowledge, has your employer organisation brought in outside specialists or consultants in the last year for technical, archaeological purposes? I so, please indicate in which areas they ontributed to the work of your organisation.	Conducting [direct] intrusive investigations [evaluation, excavation]		Contributing to intrusive investigations [evaluation, excavation]	
	Conducting [direct] non-intrusive field investigations [geophysical survey]		Contributing to non-intrusive field investigations [geophysical survey]	
	Conducting [direct] other nonintrusive field investigations		Contributing to other non-intrusive field investigations	

	Archaeological landscape characterisation		Desk-based research	
	Conservation of artefacts or ecofacts		Artefact or ecofact research	
	Other [please specify]			

2.8. Additional comments

If you have any further comments about any aspect of archaeological employment in Estonia, please make them here	

PART III: EDUCATIONAL INSTITUTIONS ONLY

This part has to be compiled only by educational organisations / institutions

*Please indicate how the number of **undergraduate students** has changed over the last few years and how you anticipate these numbers to change in the near future*	How many students graduated from your institution with undergraduate degree in Archaeology **three years ago (2010)**?	
	How many students graduated from your institution with underdraduate degree in Archaeology **one year ago (2012)**?	
	How many students are expected to graduate from your institution with undergraduate degree in Archaeology **this year (2013)**?	
	How many students do you anticipate will graduate from your institution with undergraduate degree in Archaeology **next year (2014)**?	
	How many students do you anticipate will graduate from your institution with undergraduate degree in Archaeology **in three years (2016)**?	
	How man students do you anticipate will graduate from your institution with undergraduate degree in Archaeology **in five years (2018)**?	

*Please indicate how the number of graduate **Masters students** have changed over the last few years and how you anticipate these numbers to change in the near future*	How many Archaeology Masters students were admitted to your institution **three years ago (2010)**?	
	How many students graduated from your institution with Master of Archaeology degree **three years ago (2010)**?	
	How many Archaeology Masters students were admitted to your institution **one year ago (2012)**?	
	How many students graduated from your institution with Master of Archaeology degree **one year ago (2012)**?	
	How many students are expected to graduate from your institution with Master of Archaeology degree **this year (2013)**?	
	How many students do you anticipate will graduate from your institution with Master of Archaeology degree **next year (2014)**?	
	How many students do you anticipate will graduate from your institution with Master of Archaeology degree **in three years (2016)**?	
	How many students do you anticipate will graduate from your institution with Master of Archaeology degree **in five years (2018)**?	

*Please indicate how the number of **PhD students** have changed over the last few years and how you anticipate these numbers to change in the near future*	How many Archaeology PhD students were admitted to your institution **three years ago (2010)**?	
	How many students graduated from your institution with PhD of Archaeology degree **three years ago (2010)**?	
	How many Archaeology PhD students were admitted to your institution **one year ago (2012)**?	
	How many students graduated from your institution with PhD of Archaeology degree **one year ago (2012)**?	
	How many students are expected to graduate from your institution with PhD of Archaeology degree **this year (2013)**?	
	How many students do you anticipate will graduate from your institution with PhD of Archaeology degree **next year (2014)**?	
	How many students do you anticipate will graduate from your institution with PhD of Archaeology degree **in three years (2016)**?	
	How many students do you anticipate will graduate from your institution with PhD of Archaeology degree **in five years (2018)**?	