



Discovering the Archaeologists of Europe 2012-14: Transnational Report

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Discovering the Archaeologists of Europe 2012-14: Transnational Report

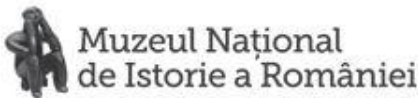
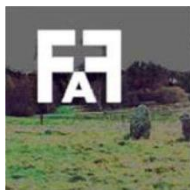
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ASSOCIAÇÃO PROFISSIONAL DE ARQUEÓLOGOS



Faculty of History and Philosophy



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Executive Summary

Between 2012 and 2014 representatives from 23 organisations in 21 European countries worked together in the *Discovering the Archaeologists of Europe 2014* project to gain insight into the profile of the archaeological profession and labour market in those countries. The results can be compared with those of a predecessor *Discovering the Archaeologists of Europe* project, undertaken in 2006-08,

Employment. Across the 21 participating states, it is calculated that a total of over €1 billion is spent on professional archaeology every year, with the majority of that expenditure being on the salary costs of the estimated 24,740 people who work as archaeologists in these countries. This group of professionals represents 0.006% of the combined total workforces of those states. In many states, the absolute numbers employed in archaeology has fallen significantly over the previous six years. It is estimated that approximately 33,000 archaeologists now work across Europe as a whole.

Growth of the sector. Across Europe, organisations employing archaeologists have typically become smaller over the five years prior to this project, and employers are very cautious about predicting future growth.

Nature of the workforce. A slight majority (50.3% to 49.7%) of archaeologists are women. The proportion of women in the workforce has increased over the six years since 2006-08 from 45.9%. On average, European archaeologists are 40 years old. Very few European archaeologists are disabled – 1.1% of the total number of workers for whom data were available, a reduction from 1.5% in 2006-08.

Countries of Origin. 94% of archaeologists work in their own countries of origin, 5% are from other EU states and 1% from elsewhere in the world. Overall, this shows a slight decline in sectoral transnational mobility, as in 2006-08 more archaeologists were working away from their countries of origin.

Qualifications. In every participating state, it is normal for people working in archaeology to hold a degree – on aggregate, 94% of European archaeologists are graduates and the majority (69%) are postgraduates. 90% of archaeologists gained their highest qualifications in the countries in which they now work, with 9% obtaining those qualifications elsewhere in Europe (and 1% elsewhere in the world). When compared with the figures from 2006-08, this shows that archaeologists are increasingly educationally mobile.

Salaries. In twelve of the 21 participating states, archaeologists were paid less than the national average for all workers. An average figure of €24,901 was calculated as the mean salary earned by an archaeologist, but this is relatively meaningless as average salaries vary enormously between countries, with Danish archaeologists earning on average nine times the amount earned by their peers in Bosnia and Herzegovina.

Nature of the work. 78% of the archaeologists for whom data were available worked full-time and 22% part-time. This is a marked change from 2006-08, when the percentages were 86% full-time and 14% part-time. 63% of archaeologists held permanent contracts at the time of the research, while the remaining 37% of workers had time-limited contracts.

Structures. As was identified in the predecessor project in 2006-08, archaeological practice in the participating states is organised on different models, with varying levels of commercial activity balanced against state agency engagement. This is often linked to the funding basis of archaeological practice (variation both on the basis of funding from the state or from private sector industries, and on whether delivery is achieved by the state or by the private sector). Different states define who can be considered to be an archaeologist in different ways. Vocational education and training (VET) in the sector is almost universally delivered by universities through academic degree programmes.

Skills and Training Needs. Issues relating to specific training needs were assessed in each participating country, but, as in 2006-08, because of the variety of ways in which these questions were asked by the project partners (in order to accommodate the differing structures and approaches to archaeological work in each participating state), the information obtained cannot be usefully compared transnationally.

Trends and developments. In comparison with the predecessor work undertaken in 2006-08, the main ways that the sector has changed are that the number of jobs has decreased and the proportion of women working in the sector has increased. Furthermore, jobs are more likely to be part-time and for shorter contractual periods; archaeologists are more highly qualified, but are less well-paid in comparison with other sectors.

Introduction

The Lifelong Learning Programme of the European Commission has supported a project to investigate the labour market and skills issues in European archaeology. *Discovering the Archaeologists of Europe 2014*, the successor to an earlier project undertaken six years previously, involved 21 partner organisations and two associate partners from a total of 21 European states.

The project was launched when it was recognised that professional archaeological practice in Europe was coming under economic pressure following the effects of the global financial crisis and this was particularly affecting employers' abilities to invest in vocational education and training for their staff.

Partners collected data from sectoral employers in their own states, identifying labour market intelligence together with vocational education and training priorities, and have presented recommendations using this evidence to training providers.

This Transnational Report presents selected data from the 21 national reports to identify comparisons and issues across European states and changes and trends over time.

Rationale and Background to the Work

This project was grounded on the basis that

“Archaeological material, sites and landscapes are non-renewable [environmental and cultural] resources so professional education (understanding the roles of this material in the past and its importance in the present or future) cannot treat practical skills as an optional add-on to academic, theoretical study. Vocational education and training is critical for all archaeologists working in Europe, whether at the entry-stage of their career or as on-going continuing professional development” (YAT 2012, 40).

and

“The specific needs of contemporary professional archaeology as a sector in Europe are –

- that archaeological practice is under economic pressure following the effects of the global financial crisis, and this is particularly affecting employers’ abilities to invest in VET
- there is still a level of difficulty for individuals to move from country to country because qualifications are not universally recognised” (*ibid.*).

This has led the project to aim to support closer links between vocational education and training (VET) and working life in archaeology in order to make VET more responsive to labour market needs (of both individuals and employers).

The project was delivered on the basis that gathering and exchanging information and experience (providing an evidence base for the sector), as well as supporting the dissemination and implementation of common approaches, methods and tools linked to the *New Skills for New Jobs* initiative (EC 2008), would improve sectoral identification and anticipation of skill and competence needs and their integration in VET provision. Its outcomes promote the integration of learning with working.

Because of the global economic transformation since 2008, the project has been particularly focussed on identifying and addressing changes and impacts caused by the economic changes:

- identifying labour market information and trends, including training investment, recruitment and career progression difficulties
- identifying training needs and skills shortages
- establishing the number and profile of professional archaeologists
- identifying the range of archaeological employers
- providing employers with information to aid business planning and improve organisational performance
- providing individuals with information to help develop their careers
- supporting VET providers with information on employers’ needs.

Context

This project was undertaken in the context of archaeology's ongoing transformation from an academic discipline to an applied, environmental practice with novel demands for vocational education and training, set against the backdrop of the global economic changes of the first decade of the 21st century and their effects on this profession.

Global Economic Context

Immediately following the conclusion of the predecessor *Discovering the Archaeologists of Europe* project, the effects of the global financial crisis that was triggered in 2008 by subprime mortgage losses in the United States began to impact on archaeological practice in terms of both employment and training investment. The immediate effects of the economic situation on the sector were reviewed at a conference in 2009 and subsequent publication (*Archaeology and the Global Economic Crisis* – Schlanger & Aitchison [2010]). Most of the papers presented were opinion pieces, but some were based on new (limited) data which clearly identified the need for more up-to-date figures to try to support recovery plans. Several of the project partners contributed to that volume.

The effects of the global economic crisis upon archaeology were identified at European and global levels (Aitchison 2009b, 2009c), and the subsequent Eurozone and sovereign debt financial crises compounded the problems in many countries over the years that immediately followed.

European Policy Context

At the highest level, the European Union seeks to improve the capabilities and skills of workers. In the context of this project, which has aimed to present the benefits of and need for European cooperation (as opposed to national, regional or local approaches), this has also been linked to the development of opportunities for transnational mobility and for the preservation and promotion of a shared European heritage, within a framework of policies that operate at a European level.

The Treaty on European Union

Improving the capabilities and skills of workers who are protecting or curating archaeological heritage can be justified as the principle that the European Union can act in support of cultural heritage is enshrined in the *Treaty on European Union*, as the European Union seeks to “ensure that Europe's cultural heritage is safeguarded and enhanced” (EU 1992, article 3.3) and that it will do this by “encouraging cooperation between Member States and, if necessary, supporting and supplementing their action” in the field of culture (EU 2008, article 167).

Europe 2020

Europe 2020 is the European Union's ten-year growth and jobs strategy which was launched in 2010 (EC 2010). It is primarily about addressing the outcomes of the global economic crisis that began in 2007-08, and seeks to achieve this by addressing the shortcomings of the previous growth model and creating the conditions for a smart, sustainable and inclusive growth.

The objectives of the strategy are supported by seven 'flagship initiatives', one of which is being directly addressed by this project, 'An Agenda for New Skills for New Jobs'.

New Skills for New Jobs

The project has followed the direction of the EC's Employment, Social Affairs and Inclusion initiative, *New Skills for New Jobs* (EC 2008) (which became a flagship initiative of Europe 2020), by working to "promote better anticipation of future skills needs, develop better matching between skills and labour market needs and [to] bridge the gap between the worlds of education and work".

ET 2020

The project has demonstrated complementarity with *ET 2020*, the Education and Training 2020 Work Programme, which is the strategic framework for European cooperation in education and training, by specifically contributing to the strategic objectives of improving the quality and efficiency of education and training and of making lifelong learning and mobility a reality.

In doing this, the project has provided workers and employers with reliable statistical information that they require in order to assess and take advantage of opportunities to train and work in states other than their own.

Archaeological Policy Context

The European Union takes a less direct role in influencing archaeological (cultural heritage) policy when compared with natural heritage policy. However, it has been significant at the crossover between cultural and natural heritage, when both can be perceived as being environmental resources to be protected within the process of sustainable development.

This has meant that in terms of archaeological employment, European legislation is important because it stimulates the need for archaeological work through the planning and environmental assessment processes and it regulates the quality of work (through the application of the Valletta Convention, below).

Environmental Impact Assessment

The most significant European policy to affect archaeological practice was *Council Directive 85/337/EEC*, published in 1985 and then updated in 1992 and 2014 (EEC, 2014), which established the requirement for the environmental impact of any significant land use change to be assessed, and for subsequent mitigation to take place where required – and in

terms of archaeological practice, this was very important because cultural heritage, including archaeological remains, was identified as an environmental component to be considered. All member states of the Union are obliged to incorporate EU Directives into national law, and it was following this Directive that all member states have made arrangements for the assessment of the impact of development on environmental resources, including archaeological remains. The actual ways in which this Directive is implemented vary from state to state (and even regionally within decentralised member states), which has contributed to the particular national characteristics of applied practice in each European country.

Valletta Convention

Council of Europe (CoE) policy, specifically the (Valletta) *Convention on the Protection of Archaeological Heritage (revised)* (CoE, 1992) has had more visible, popular significance in European applied archaeology than the policies of the European Union, as it emphasises the need for quality control, but in terms of its impact upon archaeological employment and practice has had much less effect than the Environmental Impact Assessment regulations, which opened up and developed a whole new, significant area of archaeological work.

Discovering the Archaeologists of Europe (2006-08)

Previously, the only significant piece of work in this area was the predecessor project, *Discovering the Archaeologists of Europe* (2006-08), which profiled archaeologists working in twelve EU member states.

The only European countries where any comparable work before that project had been undertaken were the United Kingdom and Ireland. Following the 2006-08 project, comparable data were collected in Bosnia and Herzegovina and in Spain in 2009.

The primary focus of the 2006-08 project, which was part-funded by the European Commission through the Leonardo da Vinci II fund, was on transnational mobility and identifying ways to overcome any barriers facing workers in this sector. The project produced national reports and oversight through a transnational report (Aitchison 2009a).

That project reported just before the global economic changes of 2008, and so provides valuable benchmark data from the pre-crash economic peak which allowed changes that had taken place to be properly evaluated in this, *Discovering the Archaeologists of Europe* 2014 project.

Archaeological Practice and VET

In all of the countries participating in this project, universities are the leading providers of VET for the archaeological sector. Six of the project partners are university Departments of Archaeology.

Two of the partnership bodies are professional associations, promoting standards and competence within their own states. By participating in this project they have been able to work together in order to seek to endorse individual members for their work across Europe.

The European Association of Archaeologists (a partner in this project) has a standing Committee on Professional Associations in Archaeology, which is currently co-chaired by Kenneth Aitchison, the project coordinator for this project. That Committee is charged with advising the Association on issues relating to professionalism, training and employment within European archaeology, and so the active involvement of project staff with that Committee will enhance the quality of the disseminated results to individual archaeologists and employers across Europe.

By improving understanding of the requirements for, and capacity to provide VET for archaeologists across Europe, the benefits of the project should be relevant for archaeologists and the broader cultural heritage sector, as well as to their clients, educators and the wider public.

Most of the partner states do not have specifically archaeological bodies overseeing and advising on VET, and so the national results will help governments, agencies, SMEs and individual archaeologists structure their enterprises to promote and facilitate work in archaeology with suitably skilled staff.

Aims and Objectives

The specific objective of the predecessor project (*Discovering the Archaeologists of Europe*) was to form a Transnational Network of organisations with common interests and aims, and for the members of that Network to collect, assess and share data on employment and vocational education and training (VET). In that project, twelve partners produced estimates of the numbers of archaeologists working in each country, with data on age and gender, disability status, country of origin, full- and part-time employment, past and future trend data, highest qualifications and where these were obtained, information on training needs and skills shortages, and salaries or wages paid for archaeological work.

This project – *Discovering the Archaeologists of Europe 2014* - has expanded the Network (now a Multilateral Network) in order to carry out updated research and to re-evaluate the state of archaeological employment across Europe in the light of the previous five years' economic changes.

The concrete Aims of the project have been:

1. To promote better anticipation of future skills needs in the sector of professional archaeology
2. To develop better matching between skills and labour market needs in this sector
3. To bridge the gap between the worlds of education and work for this sector

The Objectives (all of which were outcome based and assessable, not task-based) were:

- a) to identify labour market information and trends, including training investment, recruitment and career progression difficulties, from both the supply (individuals') and demand (employers') perspectives
- b) to identify training needs and skills shortages
- c) to establish the number and profile of archaeologists working in each state
- d) to identify the range of archaeological employers involved in providing archaeological services, expertise and training
- e) to identify the range of providers of archaeological vocational education and training
- f) to provide employers with information to aid business planning and improve organisational performance
- g) to provide individuals with information to help plan their own training and thus to develop their careers
- h) to provide vocational education and training providers with information on demand from individuals and employers in order to allow them to calibrate their provision to meet the needs of the world of work

The Intentions were that the situation would be changed:

- i. Employers would be better informed, enabling them to better plan for future recruitment needs and training development issues
- ii. Individual archaeological workers and aspirant archaeological workers would be able to plan their vocational education and training and thus to develop their own careers

- iii. VET providers would be able to better match the courses and learning opportunities that they provide to the demonstrated needs of the world of work.

Lifelong Learning Programme Priority and Objectives

The project addressed a specific Priority of the European Commission's Lifelong Learning Programme and also had a series of objectives that were specific to the objectives of the Programme.

Lifelong Learning Programme Priority 1 Cooperation between VET and world of work

Since 2007-08 the global economic crisis has seriously impacted on employment in archaeological practice across Europe. There is a clear demand for enhanced VET to help sectoral workers and employers navigate changes in working practices, and so better information has to be made available to VET providers. This project has identified where employers recognise skills issues, and has made recommendations to VET providers on transnational and national approaches to alleviate these problems.

LLP-Obj-a To contribute to the development of quality lifelong learning and to promote high performance, innovation and a European dimension in systems and practices in the field

Lifelong learning in professional archaeology has been subject to underinvestment. This is a relatively modern profession, only emerging from its academic origins to become an applied profession in the last 20-25 years, without strategic consideration having been given to professional development.

LLP-Obj-k To encourage the best use of results, innovative products and processes and to exchange good practice in the fields covered by the Lifelong Learning Programme, in order to improve the quality of education and training

The project has actively shared results across Europe on the issues of professional archaeologists' current qualifications and the areas of where skills development needs are identified by employers. These data are being actively provided to VET providers to develop new and best practice in delivering education and training for professionals (and aspirant professionals) in this field and in doing so is also seeking to enhance transnational applicability of qualifications.

LEO-SpObj-a To support participants in training and further training activities in the acquisition and the use of knowledge, skills and qualifications to facilitate personal development, employability and participation in the European labour market

The project has identified the VET issues that sectoral employers prioritise and is using these to make recommendations to VET providers who can then better match the training they

provide to the needs of the current and future workforce. This will lead to improved support for participants' skills-based training, including access to vocational qualifications, thus enhancing their individual employability and their opportunities to access and participate in a sectoral European labour market.

LEO-SpObj-b To support improvements in quality and innovation in vocational education and training systems, institutions and practices

The outcomes of the project are ensuring that VET is aiming to be delivered against defined and quantified needs, rather than on *ad-hoc* or anecdotal accounts of demand. This will allow training institutions to demonstrate that they will deliver skills that will maximise training participant's employability. Where vocational qualifications for the sector exist that can be mapped against the European Qualifications Framework, the transnational application of these is being encouraged and endorsed.

LEO-OpObj-2 To improve the quality and to increase the volume of co-operation between institutions or organisations providing learning opportunities, enterprises, social partners and other relevant bodies throughout Europe

The project has brought together 23 organisations from 21 European states all of which have worked to improve opportunities for people to work and learn in archaeology. The partners who have cooperated represent a wide range of types of organisations involved in providing training and learning opportunities (professional associations, small or medium enterprises, social partners [a trade union, social enterprises], universities, museums, regional government and national government departments).

LEO-OpObj-4 To improve the transparency and recognition of qualifications and competences, including those acquired through non-formal and informal learning

The predecessor project which initially formed the Network that this project has supported particularly focussed on transparency and recognition of academic qualifications. This project has particularly focused on the VET needs of workers, and is making recommendations to VET providers on national and transnational approaches to improving delivery and to ensuring that the skills gained and any qualifications awarded can be recognised transnationally.

Archaeologists in Europe, 2012-14

The project focussed on the identification of practitioners within professional archaeology and so through doing this has aimed to identify and support any needs they have to improve or maintain necessary skills. Gathering data from 21 countries has shown that while there is not a significant diversity of practice when it comes to obtaining primary evidence about human activities in the past, there is a great deal of variation in the approaches taken to curating or managing that evidence, which lead to significantly different skills needs in different parts of Europe.

Total Numbers of Archaeologists

Project partners produced estimated totals for the numbers of archaeologists in paid employment in each country. It is important to note that these are estimated totals, not the specific numbers that were directly identified in surveys.

While the overall approach used was a form of probability sampling, using closed populations, as slightly different methodologies were applied by each partner to gathering data and to defining who could be considered to be a professional archaeologist, there is potential for some *coverage errors* and *non-response errors* to have been introduced. These terms are explained by Aitchison & Edwards (2008, 25) in the introduction to the methodology used in the predecessor project's UK component.

"...as the mailing list was not likely to be perfect, there will have been some *coverage error* (omission, duplication or wrongful inclusion of population elements) but minimal *sampling error* (where only a subset of the total population is sampled). The levels of non-response may have introduced some *non-response error* (all error definitions after Groves, 1989) if the non-respondents had differed significantly from the respondents, but the authors and project board are confident that the non-responding organisations would not have provided data that would have been significantly different in qualitative terms".

The profession of 'Archaeologist' is not legally Regulated in many countries (see Archaeologists' Countries of Origin below), and so for the purpose of this project, 'Archaeologist' was defined and justified as appropriate in each country. Definitions aimed to be as broad as possible, and educational achievements were not automatically regarded as being of primary importance in determining whether an individual can be regarded as an archaeologist or not.

Partners were asked to present the **estimated** number of archaeologists in their country, with an account of how confident they were in the estimated number (in terms of their professional judgement, not as statistical confidence levels) and a note on whether this was the number of ‘archaeologists’ or of ‘people working in archaeology’.

| | Estimated numbers of professional archaeologists |
|----------------------|---|
| United Kingdom | 4,792 |
| Germany | 4,700 |
| Italy | 4,383 |
| Greece | 1,528 |
| Netherlands | 1,335 |
| Austria | 1,219 |
| Poland | 1,004 |
| Portugal | 862 |
| Romania | 858 |
| Spain | 796 |
| Norway | 641 |
| Czech Republic | 530 |
| Flanders (Belgium) | 483 |
| Denmark | 453 |
| Ireland | 338 |
| Slovenia | 257 |
| Slovakia | 224 |
| Estonia | 121 |
| Cyprus | 96 |
| Bosnia & Herzegovina | 60 |
| Latvia | 60 |
| <i>Total</i> | <i>24,740</i> |

Table 1: Total Numbers of Professional Archaeologists, 2012-14

Within the 21 participating countries, where nearly 25,000 archaeologists are in employment, the largest estimated populations of archaeologists are in the United Kingdom, Germany and Italy, with more than 4,000 individual archaeologists working in each of these countries, while there are only estimated to be 60 archaeologists working in either Latvia or Bosnia and Herzegovina.

These figures, combined with data from France (Salas-Rossenbach 2014) and best guesses for other countries that were not part of the *Discovering the Archaeologists of Europe 2014* project suggest that it could be cautiously estimated that there were approximately 33,000 professional archaeologists in Europe at any given time in the period 2012-14.

Comparing the estimated numbers of archaeologists with the total national populations gives an indication of archaeologists’ significance within the working population (Table 2:

Estimated Archaeologists as Percentage of Population, below. Relatively, the highest ‘density’ of archaeologists within a national population is in Austria, but even in that country only one in every 6,750 people is an archaeologist.

| | Estimated Professional Archaeologists | Total Population¹ | % of Total Population |
|----------------------|--|-------------------------------------|------------------------------|
| United Kingdom | 4,792 | 63,700,000 | 0.008% |
| Germany | 4,700 | 81,000,000 | 0.006% |
| Italy | 4,383 | 61,700,000 | 0.007% |
| Greece | 1,528 | 10,800,000 | 0.014% |
| Netherlands | 1,335 | 16,900,000 | 0.008% |
| Austria | 1,219 | 8,200,000 | 0.015% |
| Poland | 1,004 | 38,300,000 | 0.003% |
| Portugal | 862 | 10,800,000 | 0.008% |
| Romania | 858 | 21,700,000 | 0.004% |
| Spain | 796 | 47,700,000 | 0.002% |
| Norway | 641 | 5,100,000 | 0.013% |
| Czech Republic | 530 | 10,600,000 | 0.005% |
| Flanders (Belgium) | 483 | 6,400,000 ² | 0.008% |
| Denmark | 453 | 5,600,000 | 0.008% |
| Ireland | 338 | 4,800,000 | 0.007% |
| Slovenia | 257 | 2,000,000 | 0.013% |
| Slovakia | 224 | 5,400,000 | 0.004% |
| Estonia | 121 | 1,300,000 | 0.009% |
| Cyprus | 96 | 1,200,000 | 0.008% |
| Bosnia & Herzegovina | 60 | 3,900,000 | 0.002% |
| Latvia | 60 | 2,200,000 | 0.003% |
| <i>Total</i> | <i>24,740</i> | <i>409,300,000</i> | <i>0.006%</i> |

Table 2: Estimated Archaeologists as Percentage of Populations

An alternative approach used to obtain an indication of the importance of archaeologists within countries has been to compare the relative numbers of archaeologists with the Gross Domestic Product for each country gives an indication of whether more economically active countries need to have more archaeologists. Table 3: Total Estimated Numbers of Archaeologists and Gross Domestic Product, below, shows that there is a level of correlation – more archaeologists work in richer countries – but it is not an absolute equation, as other factors will also influence this (eg Greece, the 11th richest country by GDP of the 21 examined, but with the 4th largest estimated population of professional archaeologists.

¹ Population data from CIA World Factbook, <https://www.cia.gov/library/publications/the-world-factbook/>

² Flanders population calculated from in Belgium CIA World Factbook population; <http://statbel.fgov.be/nl/modules/publications/statistiques/bevolking/bevolking - cijfers bevolking 2010 - 2012.jsp> states Flanders is 6.4m, 57.5% of Belgian population

| | Estimated professional archaeologists | Gross Domestic Product (\$US) ³ | Estimated archaeologists population rank / GDP rank |
|----------------------|---------------------------------------|--|---|
| United Kingdom | 4,792 | \$2.49 trillion | 1 / 2 |
| Germany | 4,700 | \$3.59 trillion | 2 / 1 |
| Italy | 4,383 | \$2.07 trillion | 3 / 3 |
| Greece | 1,528 | \$243.3 billion | 4 / 11 |
| Netherlands | 1,335 | \$722.3 billion | 5 / 5 |
| Austria | 1,219 | \$417.9 billion | 6 / 8 |
| Poland | 1,004 | \$513.9 billion | 7 / 7 |
| Portugal | 862 | \$219.3 billion | 8 / 13 |
| Romania | 858 | \$188.9 billion | 9 / 15 |
| Spain | 796 | \$1.356 trillion | 10 / 4 |
| Norway | 641 | \$515.8 billion | 11 / 6 |
| Czech Republic | 530 | \$194.8 billion | 12 / 14 |
| Flanders (Belgium) | 483 | \$291.7 billion ⁴ | 13 / 10 |
| Denmark | 453 | \$324.3 billion | 14 / 9 |
| Ireland | 338 | \$220.9 billion | 15 / 12 |
| Slovenia | 257 | \$46.82 billion | 16 / 17 |
| Slovakia | 224 | \$96.96 billion | 17 / 16 |
| Estonia | 121 | \$24.28 billion | 18 / 19 |
| Cyprus | 96 | \$21.78 billion | 19 / 20 |
| Latvia | 60 | \$30.38 billion | =20 / 18 |
| Bosnia & Herzegovina | 60 | \$18.87 billion | =20 / 21 |
| <i>Total</i> | <i>24,740</i> | | |

Table 3: Total Estimated Numbers of Archaeologists and Gross Domestic Product

Total Numbers of Archaeologists – Change over Time

Previous estimated figures for the total numbers of working archaeologists are available for 13 countries (Table 4: Total Estimated Numbers of Archaeologists - change over time), although in 2006-08, data were collected for the whole of Belgium, rather than for Flanders alone as in 2012-14, and the Bosnia & Herzegovinian and Spanish data were collected in 2009. The major difference in the German figures is considered to relate more to changes of

³ GDP data Official Exchange Rates, 2013 (est) from CIA World Factbook <https://www.cia.gov/library/publications/the-world-factbook/>

⁴ Flanders GDP is CIA Belgium figure; recalculated at 57.5% of CIA figure

methodology than an actual change at this scale in the total numbers of individual professional archaeologists.

Across the thirteen countries for which comparable data exist, the total number of archaeologists in work has fallen by 11%, with major falls in Ireland, Spain and the United Kingdom, all of which can be directly attributed to the effects of the economic changes of the previous five or six years.

| | 2006-08 | 2012-14 | change | |
|-----------------------------------|---------------|---------------|---------------|-------------|
| Austria | 743 | 1,219 | +476 | +64% |
| Flanders (Belgium) | 765 | 483 | -282 | -37% |
| Bosnia & Herzegovina ⁵ | 30 | 60 | +30 | +100% |
| Cyprus | 52 | 96 | +44 | +85% |
| Czech Republic | 425 | 530 | +105 | +25% |
| Germany | 2,500 | 4,700 | +2,200 | +88% |
| Greece | 1,856 | 1,528 | -328 | -18% |
| Spain ⁶ | 2,358 | 796 | -1,562 | -66% |
| Ireland | 1,709 | 338 | -1,371 | -80% |
| Netherlands | 761 | 1,335 | +574 | +75% |
| Slovenia | 175 | 257 | +82 | +47% |
| Slovakia | 186 | 224 | +38 | +20% |
| United Kingdom | 6,865 | 4,792 | -2,073 | -30% |
| <i>Total</i> | <i>18,425</i> | <i>16,358</i> | <i>-2,067</i> | <i>-11%</i> |

Table 4: Total Estimated Numbers of Archaeologists - change over time

⁵ Bosnia & Herzegovina 2009 figure (Lawler 2010, 8)

⁶ Spain 2009 figure (Parga-Dans & Varela-Pousa 2014, 8)

Past Numbers of Archaeologists

Partners sought data that answered whether “Were more or fewer people employed in archaeology one year ago, three years ago and five years ago?”

Most partners gathered these data by asking employers whether more or fewer people had been employed by them at these points in the past. The figures presented in Table 5: Past Sizes of Organisations, below are calculated from the number of organisations in each country reporting that they had more employees five, three or one year previously minus the number that had less employees, as a percentage of all responses received. Positive figures equate to growth over time, so a figure of 100% would mean that 100% of organisations in that country had grown since the period that the data refer to.

| | 5 years before | 3 years before | 1 year before |
|----------------------|----------------|----------------|---------------|
| Austria | 16% | 16% | 21% |
| Bosnia & Herzegovina | no data | | |
| Flanders (Belgium) | -31% | -23% | 21% |
| Cyprus | 6% | -22% | -67% |
| Czech Republic | 15% | 6% | 0% |
| Germany | 18% | 10% | 11% |
| Denmark | -20% | -20% | -60% |
| Estonia | no data | | |
| Greece | -25% | -25% | 0% |
| Spain | -63% | -61% | -40% |
| Ireland | 18% | 6% | 0% |
| Italy | no data | | |
| Latvia | | | |
| Netherlands | 18% | no data | -1% |
| Norway | 56% | 44% | 24% |
| Poland | no data | | |
| Portugal | | | |
| Romania | -19% | -24% | 0% |
| Slovenia | 11% | 14% | 0% |
| Slovakia | -6% | -6% | -8% |
| United Kingdom | -23% | -6% | -3% |
| <i>Total</i> | <i>-13%</i> | <i>-14%</i> | <i>-9%</i> |
| n= | 746 | 680 | 777 |

Table 5: Past Sizes of Organisations

Across Europe, organisations have become smaller; the aggregate figures show that organisations were typically smaller when they were polled than they had been one, three or five years before.

The figures from Spain are the most negative, although Denmark has also reported significant proportions of organisations becoming smaller over this period. By contrast, the figures from Norway show that archaeological organisations have grown over that period.

It is also noticeable that in Ireland, where there has been a serious reduction in the total population of individual archaeologists (see Table 4: Total Estimated Numbers of Archaeologists - change over time), and where many businesses were forced to cease trading, those that are still operating tend to report that they are now seeing growth over the previous few years.

Past Numbers of Archaeologists – Change Over Time

In almost all participating states, archaeology had recently expanded in 2006-08, with exceptions being Austria and Germany, and to a lesser extent Slovenia, where significant growth had been seen over five years although this had slowed in the year prior to the study, and in Greece.

As shown in Table 6: Past Numbers of Archaeologists - change over time, below, the changed economic situation is very clear as the retrospective picture is much more negative (figures below zero mean that a net number of organisations have become smaller over the time period being examined) from the viewpoint of 2012-14 than it was in 2006-08.

| | 2006-08 | | | 2012-14 | | |
|--------------------|----------------|----------------|---------------|----------------|----------------|---------------|
| | 5 years before | 3 years before | 1 year before | 5 years before | 3 years before | 1 year before |
| Austria | -18% | -22% | -14% | 16% | 16% | 21% |
| Flanders (Belgium) | +24% | +16% | +5% | -31% | -23% | 21% |
| Cyprus | +23% | +29% | +29% | 6% | -22% | -67% |
| Czech Republic | +30% | +23% | +6% | 15% | 6% | 0% |
| Germany | +8% | 0% | -2% | 18% | 10% | 11% |
| Greece | +11% | +2% | -10% | -25% | -25% | 0% |
| Ireland | +39% | +32% | +21% | 18% | 6% | 0% |
| Netherlands | +61% | +54% | +36% | 18% | no data | -1% |
| Slovenia | +45% | +4% | -4% | 11% | 14% | 0% |
| Slovakia | +20% | +11% | +2% | -6% | -6% | -8% |
| United Kingdom | +18% | +17% | +10% | -23% | -6% | -3% |

Table 6: Past Numbers of Archaeologists - change over time

Future Numbers of Archaeologists

Employers' future outlooks were examined by asking "Is it expected that more or fewer people will be employed in archaeology next year and in three years' time?"

The figures presented in Table 7: Future Sizes of Organisations, below are calculated from the number of organisations in each country reporting whether they anticipate having more employees one or three years in the future, minus the number that expect less employees, as a percentage of all responses received. Positive figures equate to growth over time, so a figure of 100% would mean that 100% of organisations in that country expect to grow over the period that the data refer to.

| | 1 year in the future | 3 years in the future |
|----------------------|----------------------|-----------------------|
| Austria | -11% | 11% |
| Bosnia & Herzegovina | 40% | 75% |
| Flanders (Belgium) | 0% | 23% |
| Cyprus | -33% | -6% |
| Czech Republic | 14% | 10% |
| Germany | -19% | -27% |
| Denmark | 20% | 20% |
| Estonia | no data | |
| Greece | -8% | -17% |
| Spain | -18% | 9% |
| Ireland | 13% | 13% |
| Italy | no data | |
| Latvia | no data | |
| Netherlands | -4% | 1% |
| Norway | 21% | 6% |
| Poland | no data | |
| Portugal | no data | |
| Romania | 0% | 8% |
| Slovenia | -14% | 2% |
| Slovakia | 17% | 15% |
| United Kingdom | 4% | 9% |
| <i>Total</i> | -2% | 7% |
| n= | 750 | 741 |

Table 7: Future Sizes of Organisations

Overall, slightly more (net 2%) employing organisations expect to become smaller in the year after they were surveyed than expect to grow, although organisations are more optimistic for three years in the future. The responses from Bosnia & Herzegovina are

particularly positive, although this was a small sample, while the responses from Germany are the least optimistic.

Future Numbers of Archaeologists – Change Over Time

Opinions formed in 2007-08 (the typical dates of returns to the predecessor project) were formed by the ongoing positive nature of the global and European economies; the economic transformation that would begin in 2008 had not yet begun to affect respondents.

Employers had much less positive expectations for future growth in 2012-14 than they held in 2006-08, reflecting the change in sentiment from what was still an ongoing period of growth and expansion for the sector, before the global economic transformation of 2008 and subsequent economic crises. The more circumspect expectations reported in 2012-14 will have been shaped by the experience of the economic changes that took place in the previous six years (and that continue to take place in some countries).

| | 2006-08 | | 2012-14 | |
|--------------------|----------------------|-----------------------|----------------------|-----------------------|
| | 1 year in the future | 3 years in the future | 1 year in the future | 3 years in the future |
| Austria | +4% | -3% | -11% | +11% |
| Flanders (Belgium) | +3% | +12% | 0% | +23% |
| Cyprus | +33% | +33% | -33% | -6% |
| Czech Republic | +11% | +21% | 14% | 10% |
| Germany | -2% | -12% | -19% | -27% |
| Greece | +2% | +39% | -8% | -17% |
| Ireland | +26% | +42% | +13% | +13% |
| Netherlands | +27% | +38% | -4% | +1% |
| Slovenia | +13% | +32% | -14% | +2% |
| Slovakia | +9% | +3% | +17% | +15% |
| United Kingdom | +14% | +26% | 4% | 9% |

Table 8: Future Sizes of Organisations – change over time

Archaeologists' Ages and Genders

Partners collected data on the age and gender of individuals working in archaeology, identifying ages in ten-year bands, <20 years old, 20–29, 30–39 etc, then '60 and over'. These are actual, reported rather than estimated figures.

| | <20 | | 20-29 | | 30-39 | | 40-49 | | 50-59 | | ≥60 | |
|----------------------|-----|----|-------|-----|-------|------|-------|-----|-------|-----|-----|-----|
| | f | m | f | m | f | m | f | m | f | m | f | m |
| Austria | 0 | 0 | 30 | 20 | 34 | 37 | 48 | 58 | 25 | 41 | 5 | 10 |
| Bosnia & Herzegovina | 0 | 0 | 47 | 55 | 76 | 96 | 22 | 44 | 17 | 59 | 2 | 6 |
| Flanders (Belgium) | 0 | 0 | 1 | 5 | 6 | 0 | 2 | 2 | 2 | 0 | 0 | 2 |
| Cyprus | 0 | 0 | 17 | 4 | 28 | 13 | 8 | 8 | 9 | 3 | 4 | 2 |
| Czech Republic | 0 | 0 | 62 | 58 | 83 | 151 | 58 | 69 | 53 | 61 | 38 | 39 |
| Germany | 2 | 1 | 59 | 42 | 68 | 74 | 81 | 110 | 64 | 113 | 13 | 34 |
| Denmark | 0 | 0 | 0 | 0 | 9 | 9 | 13 | 5 | 8 | 9 | 2 | 4 |
| Estonia | 0 | 0 | 22 | 9 | 12 | 11 | 8 | 3 | 0 | 4 | 0 | 2 |
| Greece | 0 | 0 | 24 | 12 | 190 | 46 | 178 | 58 | 45 | 17 | 4 | 4 |
| Spain | 3 | 7 | 51 | 36 | 151 | 248 | 75 | 83 | 15 | 17 | 1 | 1 |
| Ireland | 0 | 2 | 9 | 2 | 35 | 38 | 15 | 24 | 10 | 7 | 4 | 3 |
| Italy | 0 | 0 | 114 | 42 | 273 | 96 | 58 | 41 | 33 | 17 | 14 | 7 |
| Latvia | 0 | 0 | 6 | 1 | 2 | 2 | 1 | 5 | 3 | 3 | 2 | 4 |
| Netherlands | 0 | 0 | 37 | 22 | 94 | 44 | 26 | 22 | 7 | 8 | 7 | 6 |
| Norway | 0 | 0 | 21 | 14 | 76 | 107 | 67 | 78 | 35 | 86 | 33 | 85 |
| Poland | 0 | 0 | 26 | 12 | 43 | 21 | 22 | 5 | 5 | 4 | 0 | 1 |
| Portugal | 0 | 0 | 11 | 10 | 19 | 39 | 10 | 21 | 4 | 5 | 0 | 4 |
| Romania | 0 | 0 | 4 | 2 | 16 | 7 | 12 | 7 | 5 | 5 | 1 | 1 |
| Slovenia | 0 | 0 | 21 | 9 | 36 | 65 | 9 | 17 | 14 | 17 | 6 | 23 |
| Slovakia | 0 | 1 | 27 | 23 | 93 | 83 | 52 | 88 | 49 | 91 | 15 | 38 |
| UK | 0 | 0 | 74 | 20 | 149 | 130 | 97 | 155 | 61 | 109 | 19 | 35 |
| <i>Total</i> | 5 | 11 | 589 | 378 | 1344 | 1187 | 765 | 748 | 403 | 567 | 151 | 276 |

Table 9: Archaeologists' Ages and Genders

As Figure 1: Archaeologists' Age Distributions (below) shows, when examined by 10-year age bands, the largest group of archaeologists are those aged in their 30s, followed by those aged in their 40s. There are almost exactly the same numbers of working archaeologists aged in their 20s as in their 50s.

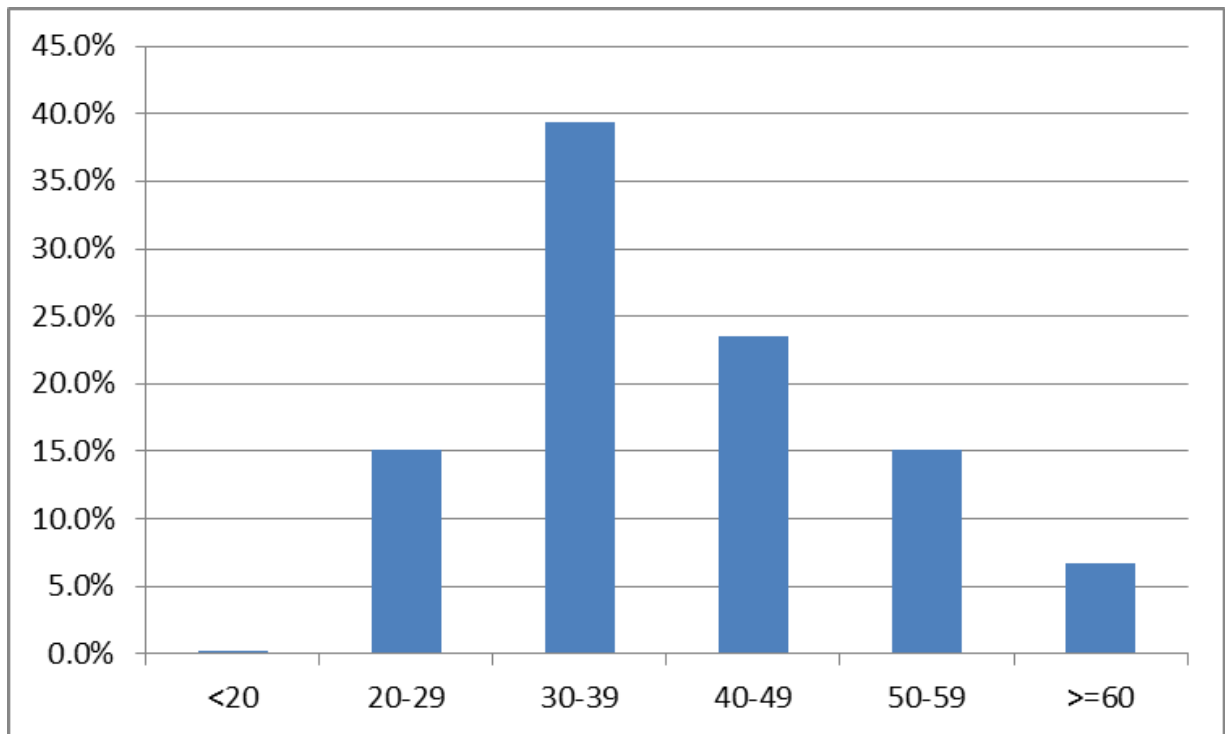


Figure 1: Archaeologists' Age Distributions

On average, professional archaeologists in Europe at the time of the survey were aged 40.3 years; female archaeologists were 38.9 years old (on average), and male archaeologists 41.8.

A slight majority of archaeologists, across the whole set of 21 survey populations, were women. 50.7% of European professional archaeologists are women and 49.3% men. Distributions vary by country (Figure 2: Archaeologists' Genders, below) – the highest proportions of women were in Greece – 76.3%, Italy - 70.8%, Portugal – 69.1% and Cyprus – 68.8%, while the countries with the highest proportions of men in the archaeological workforce were Romania – 64.2%, Poland – 61.5%, Bosnia & Herzegovina – 61.3% and Slovakia – 60.4%.

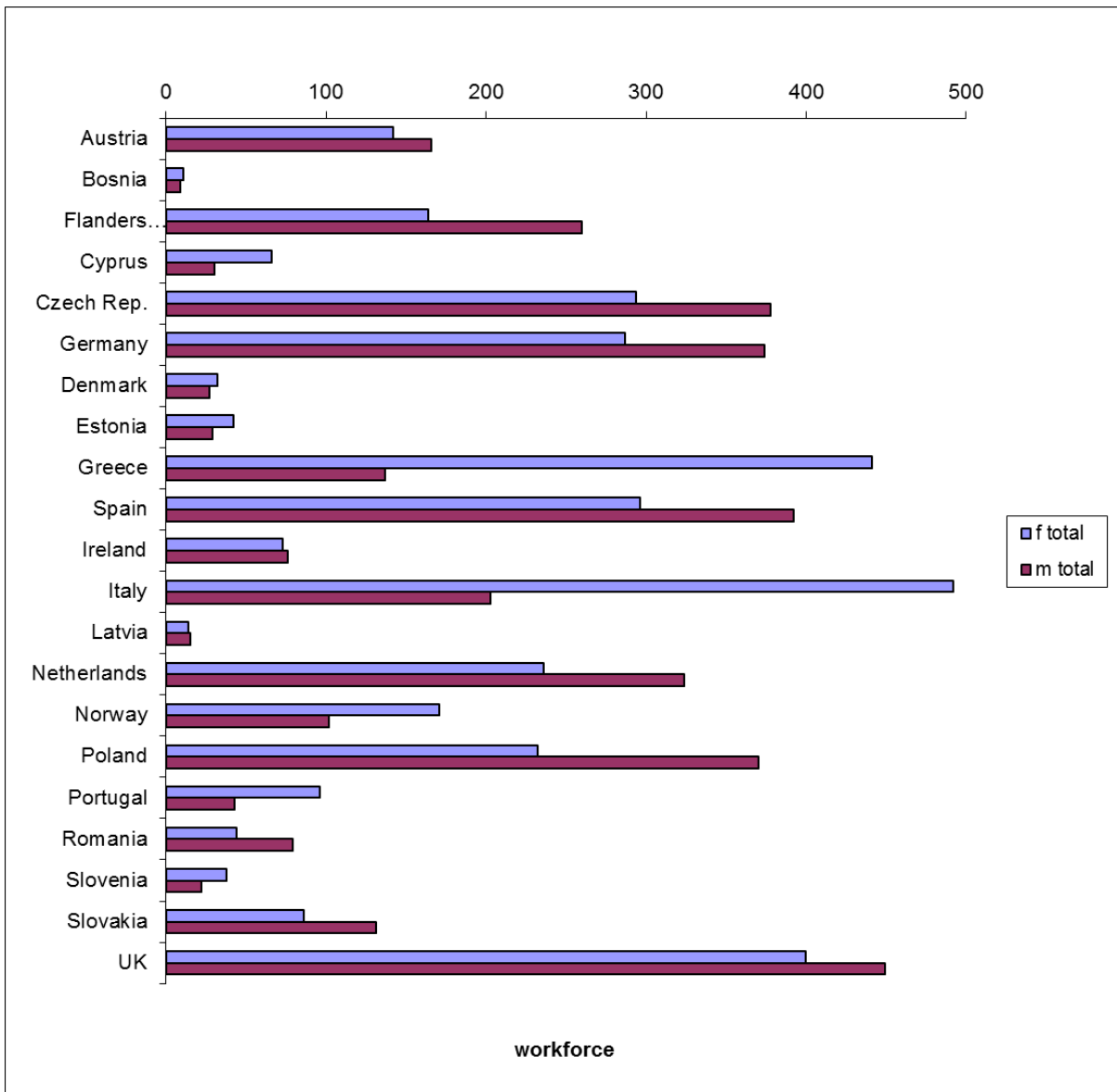


Figure 2: Archaeologists' Genders

Archaeologists' Ages and Genders – Change Over Time

The 2006-08 data presented results in terms of age separately from gender.

| | 2006-08 | | 2012-14 | |
|------------|---------|-------|---------|-------|
| <20 | 89 | 1.1% | 16 | 0.3% |
| 20-29 | 2,053 | 24.8% | 967 | 15.1% |
| 30-39 | 2,522 | 30.4% | 2,531 | 39.4% |
| 40-49 | 1,899 | 22.9% | 1,513 | 23.5% |
| 50-59 | 1,285 | 15.5% | 970 | 15.1% |
| >=60 | 442 | 5.3% | 427 | 6.7% |
| <i>n</i> = | 8,290 | | 6,424 | |

Table 10: Archaeologists' Ages – changes over time

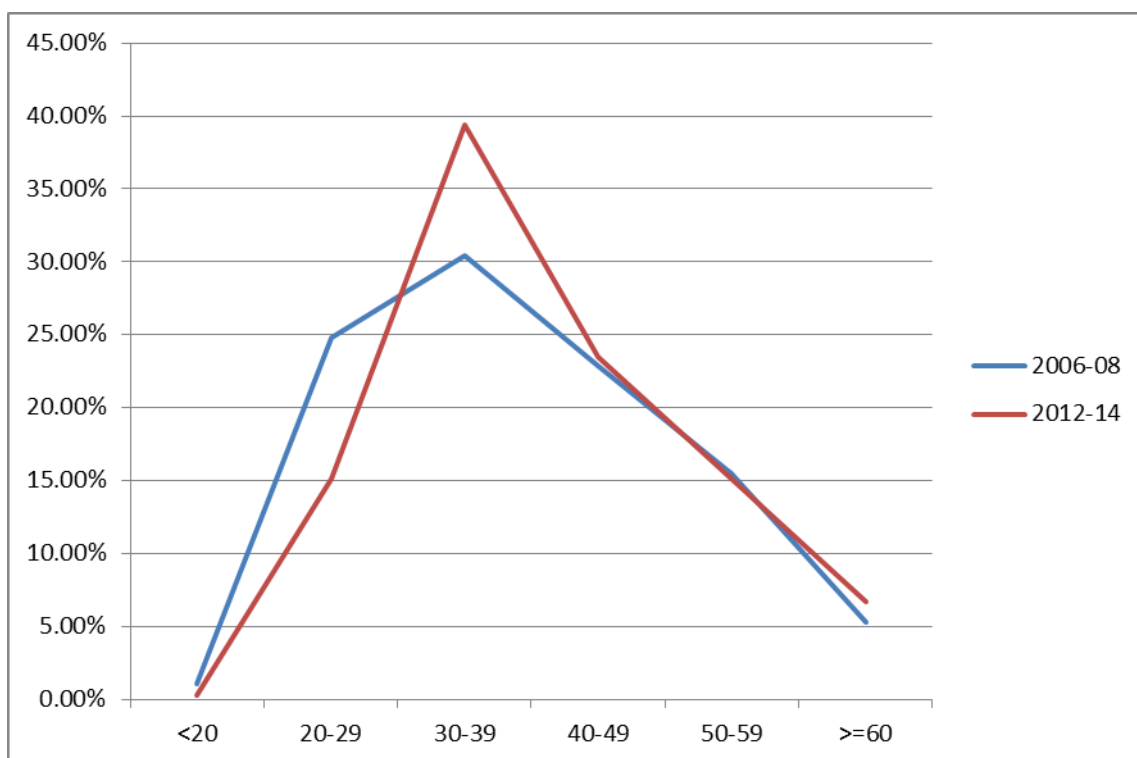


Figure 3: Archaeologists' Ages – changes over time

The average age of all working archaeologists in Europe in 2012-14 was 40.3 years; six years earlier, the equivalent figure was 38.7 years. So the archaeological population as a whole has aged, with decreases in the proportion of the population aged under 30, a marked increase in the population aged in their 30s, and an increase in the proportion aged 40-49. The relative proportion aged in their 50s has fallen slightly, and those aged in their 60s has risen slightly, but the biggest transformation has been in which two age bands are the largest; in 2006-08, it was archaeologists aged in their 20s and 30s – in 2012-14, it is those aged in their 30s and 40s.

In light of the loss of significant numbers of posts over this period, these data can be interpreted to suggest that less young people have entered the profession, and those individuals that were working in it six years earlier are likely to still be there – so the profession as a whole has aged, as the individual archaeologists have aged in their jobs. As well as a reduction in the number of posts, there has been a reduction of ‘churn’ – of new people coming in as more senior people leave.

| | 2006-08 | | 2012-14 | |
|------------|----------------|-------|----------------|-------|
| Female | 4,183 | 45.9% | 3,257 | 50.7% |
| Male | 4,926 | 54.1% | 3,167 | 49.3% |
| <i>n</i> = | 9,109 | | 6,424 | |

Table 11: Archaeologists’ Genders – change over time

In 2006-08, the majority of archaeologists were men, and this was the case in most of the participating countries. In 2012-14, there was a small majority of female archaeologists. Women now make up the majority of the archaeological working population in most of the countries surveyed, and, by age profile, this is a trend that is likely to continue, as much larger majorities of archaeologists aged in their 20s and 30s are women.

The Disability Statuses of Archaeologists

Data were obtained for the **actual number** of disabled individuals reported to the survey, the total number of people for whom this information was provided, and the total number of people covered by each national survey - eg 'the survey gave information about 1000 archaeologists, but the disability question was only answered for 800 archaeologists, of whom 20 were disabled'.

Partners were also asked to provide any relevant information about employment of disabled people in their country, or the way that disability is defined in their country. Data were not available in all countries.

| | Disabled | Able | Disabled % | Able % |
|-----------------------------|-------------------|--------------|-------------|--------------|
| Austria | 3 | 737 | 0.4% | 99.6% |
| Bosnia & Herzegovina | 0 | 24 | 0.0% | 100.0% |
| Flanders (Belgium) | No data available | | | |
| Cyprus | 1 | 95 | 1.0% | 99.0% |
| Czech Republic ⁷ | 1 | 372 | 0.3% | 99.7% |
| Germany | No data available | | | |
| Denmark | 0 | 61 | 0.0% | 100.0% |
| Estonia | No data available | | | |
| Greece | 0 | 274 | 0.0% | 100.0% |
| Spain | 3 | 704 | 0.4% | 99.6% |
| Ireland | 3 | 127 | 2.3% | 97.7% |
| Italy | 7 | 688 | 1.0% | 99.0% |
| Latvia | 0 | 29 | 0.0% | 100.0% |
| Norway | 1 | 124 | 0.8% | 99.2% |
| Poland | 3 | 907 | 0.3% | 99.7% |
| Portugal | No data available | | | |
| Romania | 3 | 121 | 2.4% | 97.6% |
| Slovenia | 0 | 60 | 0.0% | 100.0% |
| Slovakia | 1 | 223 | 0.4% | 99.6% |
| Netherlands | 26 | 493 | 5.0% | 95.0% |
| United Kingdom | 14 | 785 | 1.8% | 98.2% |
| <i>Total</i> | <i>66</i> | <i>5,824</i> | <i>1.1%</i> | <i>98.9%</i> |

Table 12: Disability Statuses of Archaeologists

Across Europe, very few archaeologists are disabled; in total, data were gathered for 5,890 individuals, of whom 1.1% were disabled. Different countries use different criteria for identifying whether a worked is disabled, which may have contributed to the range of responses (5.0% of Dutch archaeologists were considered to be disabled, but no Danish, Greek, Latvian or Slovenian archaeologists were). Overall, this suggests that disabled people may be excluded from working in the archaeological sector in many countries.

⁷ Czech Republic data for people with "altered working abilities"

The Disability Statuses of Archaeologists – Change Over Time

| | 2012-14 | | | 2006-08 | | |
|----------------|-----------|--------------|-------------|------------|--------------|-------------|
| | Disabled | Able | Disabled % | Disabled | Able | Disabled % |
| Austria | 3 | 737 | 0.4% | 3 | 479 | 0.6% |
| Cyprus | 1 | 95 | 1.0% | 2 | 475 | 0.4% |
| Czech Republic | 1 | 372 | 0.3% | 11 | 663 | 1.7% |
| Greece | 0 | 274 | 0.0% | 5 | 735 | 0.7% |
| Ireland | 3 | 127 | 2.3% | 3 | 796 | 0.3% |
| Netherlands | 26 | 493 | 5.0% | 0 | 499 | 0.0% |
| Slovenia | 0 | 60 | 0.0% | 5 | 292 | 1.7% |
| Slovakia | 1 | 223 | 0.4% | 0 | 126 | 0.0% |
| United Kingdom | 14 | 785 | 1.8% | 38 | 2,635 | 1.6% |
| <i>Total</i> | <i>66</i> | <i>5,824</i> | <i>1.1%</i> | <i>122</i> | <i>7,946</i> | <i>1.5%</i> |

Table 13: Disability Status of Archaeologists – change over time

Over the six years between the two *Discovering the Archaeologists of Europe* projects, the relative proportions of disabled members of the archaeological workforce has decreased further from an extremely low base (1.5% in 2006-08 to 1.1% in 2012-14). Overall it can be seen that disabled people are still under-represented in the archaeological workforce.

Archaeologists' Countries of Origin

As shown in Table 14: Countries of Origin, below, movement between countries is relatively low in professional archaeology; across all 21 participating countries, 93.6% of archaeologists are nationals of the country that they are working in, and in only three countries are more than 10% of professional archaeologists not from that country. Of those three, there are relatively high numbers of Germans working in Austria and of Greeks working in Cyprus. The very high number of individuals identified as being non-national in Bosnia & Herzegovina can be largely explained by the questionnaire asking about individuals' to self-identify their country of birth – and as most (if not all) respondents were born before the foundation of Bosnia & Herzegovina as an independent country, this has affected the results considerably.

| | National | | EU | | non-EU Europe / other | |
|----------------------|--------------|--------------|------------|-------------|-----------------------|-------------|
| Austria | 285 | 74.8% | 89 | 23.4% | 7 | 1.8% |
| Bosnia & Herzegovina | 12 | 42.9% | 5 | 17.9% | 11 | 39.3% |
| Flanders | 292 | 92.7% | 19 | 6.0% | 4 | 1.3% |
| Cyprus | 74 | 77.1% | 21 | 21.9% | 1 | 1.0% |
| Czech Republic | 361 | 96.8% | 8 | 2.1% | 4 | 1.1% |
| Germany | 771 | 90.4% | 77 | 9.0% | 5 | 0.6% |
| Denmark | 56 | 94.9% | 3 | 5.1% | 0 | 0.0% |
| Estonia | 69 | 95.8% | 0 | 0.0% | 3 | 4.2% |
| Greece | 241 | 99.6% | 1 | 0.4% | 0 | 0.0% |
| Spain | 679 | 96.4% | 9 | 1.3% | 16 | 2.3% |
| Ireland | 121 | 83.4% | 22 | 15.2% | 2 | 1.4% |
| Latvia | 689 | 99.1% | 4 | 0.6% | 2 | 0.3% |
| Italy | 29 | 100.0% | 0 | 0.0% | 0 | 0.0% |
| Netherlands | 479 | 92.3% | 33 | 6.4% | 7 | 1.3% |
| Norway | 255 | 90.7% | 21 | 7.5% | 5 | 1.8% |
| Poland | 904 | 99.2% | 4 | 0.4% | 3 | 0.3% |
| Portugal | 545 | 95.3% | 17 | 3.0% | 10 | 1.7% |
| Romania | 114 | 93.4% | 8 | 6.6% | 0 | 0.0% |
| Slovenia | 57 | 95.0% | 3 | 5.0% | 0 | 0.0% |
| Slovakia | 292 | 99.3% | 2 | 0.7% | 0 | 0.0% |
| UK | 803 | 92.5% | 30 | 3.5% | 35 | 4.0% |
| <i>Total</i> | <i>7,128</i> | <i>93.6%</i> | <i>376</i> | <i>4.9%</i> | <i>115</i> | <i>1.5%</i> |

Table 14: Countries of Origin

Article 45 of the *Consolidated Version of the Treaty on the Functioning of the European Union* (European Union, 2012) establishes the rights of individual workers to freely move and work within the member states of the European Union. Two of the participating countries in *Discovering the Archaeologists of Europe 2014* are outside the EU (Norway and Bosnia & Herzegovina), but in theory there should be no legal barriers preventing individuals that are citizens of member states from moving transnationally within the Union.

Archaeology is not a “Regulated Profession” in most European states, being listed on the European Commission’s Regulated Professions Database⁸ as being regulated in only the Czech Republic, Greece, Ireland, Poland and Slovakia, where there might be legal barriers to practice (although these would have to be based on professional qualifications and/or language skills rather than nationality).

Archaeologists’ Countries of Origin – Change Over Time

Over the six years since the previous project, the proportion of archaeologists who are not working in their own national country has fallen – transnational mobility has decreased.

In 2006-08, 8% of archaeologists were either nationals of other EU states or of other countries; this had fallen to 6% by 2012-14 (Table 15: Countries of Origin – change over time).

| | 2006-08 | | | | | | 2012-14 | | | | | |
|--------------------|-------------|------------|------------|-----------|------------|-----------|-------------|------------|------------|-----------|------------|-----------|
| | national | | EU | | other | | national | | EU | | other | |
| Austria | 433 | 90% | 37 | 8% | 9 | 2% | 285 | 75% | 89 | 23% | 7 | 2% |
| Flanders (Belgium) | 121 | 98% | 3 | 2% | 0 | 0% | 292 | 93% | 19 | 6% | 4 | 1% |
| Cyprus | 41 | 79% | 9 | 15% | 2 | 4% | 74 | 77% | 21 | 22% | 1 | 1% |
| Czech Republic | 306 | 98% | 7 | 2% | 0 | 0% | 361 | 97% | 8 | 2% | 4 | 1% |
| Germany | 1773 | 95% | 56 | 3% | 29 | 2% | 771 | 90% | 77 | 9% | 5 | 1% |
| Greece | 1560 | 99% | 8 | 1% | 2 | <1% | 241 | 97% | 1 | <1% | 0 | 0% |
| Ireland | 269 | 55% | 202 | 42% | 14 | 3% | 121 | 83% | 22 | 15% | 2 | 1% |
| Netherlands | 476 | 95% | 16 | 3% | 7 | 1% | 479 | 93% | 33 | 6% | 7 | 1% |
| Slovenia | 120 | 95% | 6 | 5% | 0 | 0% | 57 | 95% | 3 | 5% | 0 | 0% |
| Slovakia | 171 | 98% | 2 | 1% | 1 | 1% | 292 | 99% | 2 | 1% | 0 | 0% |
| UK | 2342 | 93% | 130 | 5% | 49 | 2% | 803 | 93% | 30 | 3% | 35 | 4% |
| <i>Total</i> | <i>8085</i> | <i>92%</i> | <i>501</i> | <i>6%</i> | <i>123</i> | <i>1%</i> | <i>7128</i> | <i>94%</i> | <i>376</i> | <i>5%</i> | <i>115</i> | <i>2%</i> |

Table 15: Countries of Origin – change over time

The countries that had previously had the highest proportions of non-national workers (Ireland – 45% and Cyprus – 21%) still had relatively high proportions of archaeologists from other countries working there (Ireland – 17%, Cyprus – 23%), but the country with the highest proportion of archaeologists from other countries was now Austria (25%). The Austrian figure can be largely explained by the cultural and linguistic ease of movement from neighbouring Germany (and adjacent German-speaking South Tyrol, in Italy). The remarkable decline of the Irish figure is strongly linked to the economic changes; where previously, there had been so many well-paid fieldwork jobs that people had actively moved there to take them up, those jobs had largely disappeared, and with that much of the mobile workforce.

⁸ http://ec.europa.eu/internal_market/qualifications/regprof/

The three countries with the lowest levels of inward mobility in 2006-08 (Greece – 1%, Slovakia – 2%, Czech Republic – 2%) continued to be in that position in 2012-14, with some slight variations in the overall percentages. Notably, in 2006-08 Belgium also only reported 2% non-national workers; in 2012-14, 7% of archaeologists in Flanders were from not Belgian.

Qualifications

Partners identified the highest qualification obtained by individuals, to include post-doctoral level Habilitation or equivalent, identifying whether this qualification was obtained a) in the partner country, b) in another European country, or c) elsewhere.

Overall, archaeology has a very highly qualified workforce, with 94% of archaeologists being graduates.

| | School | U/g Degree | Masters | PhD | Post-Doc |
|----------------------|-------------|--------------|--------------|--------------|-------------|
| Austria | 7.0% | 3.0% | 32.7% | 37.6% | 19.7% |
| Bosnia & Herzegovina | 6.9% | 27.6% | 55.2% | 6.9% | 3.4% |
| Flanders | 17.4% | 7.0% | 61.4% | 14.2% | 0.0% |
| Cyprus | 0.0% | 16.8% | 43.2% | 32.6% | 7.4% |
| Czech Republic | 2.9% | 3.4% | 62.6% | 22.6% | 8.6% |
| Germany | 27.2% | 11.8% | 36.4% | 22.1% | 2.5% |
| Denmark | 0.0% | 0.0% | 63.2% | 36.8% | 0.0% |
| Estonia | 12.3% | 30.1% | 41.1% | 16.4% | 0.0% |
| Greece | 0.0% | 49.0% | 30.4% | 20.5% | 0.1% |
| Spain ⁹ | 17.3% | 66.0% | 0.0% | 16.6% | 0.0% |
| Ireland | 1.4% | 38.9% | 43.1% | 9.7% | 6.9% |
| Latvia | 0.0% | 3.4% | 58.6% | 37.9% | 0.0% |
| Italy | 0.0% | 6.4% | 71.3% | 16.0% | 6.4% |
| Netherlands | 3.3% | 12.6% | 73.2% | 10.9% | 0.0% |
| Norway | 0.0% | 6.6% | 85.1% | 8.3% | 0.0% |
| Poland | 0.1% | 0.2% | 53.6% | 28.4% | 17.6% |
| Portugal | 0.0% | 47.1% | 40.6% | 12.3% | 0.0% |
| Romania | 0.0% | 2.4% | 36.3% | 60.5% | 0.8% |
| Slovenia | 10.0% | 45.0% | 20.0% | 25.0% | 0.0% |
| Slovakia | 0.0% | 0.5% | 58.6% | 32.3% | 8.6% |
| UK | 5.8% | 48.6% | 26.5% | 18.6% | 0.5% |
| <i>Total</i> | <i>6.0%</i> | <i>25.0%</i> | <i>43.2%</i> | <i>20.9%</i> | <i>4.9%</i> |

Table 16: Highest Qualifications Held

⁹ Spain data for "university qualification" - no distinction between undergraduate and masters degrees

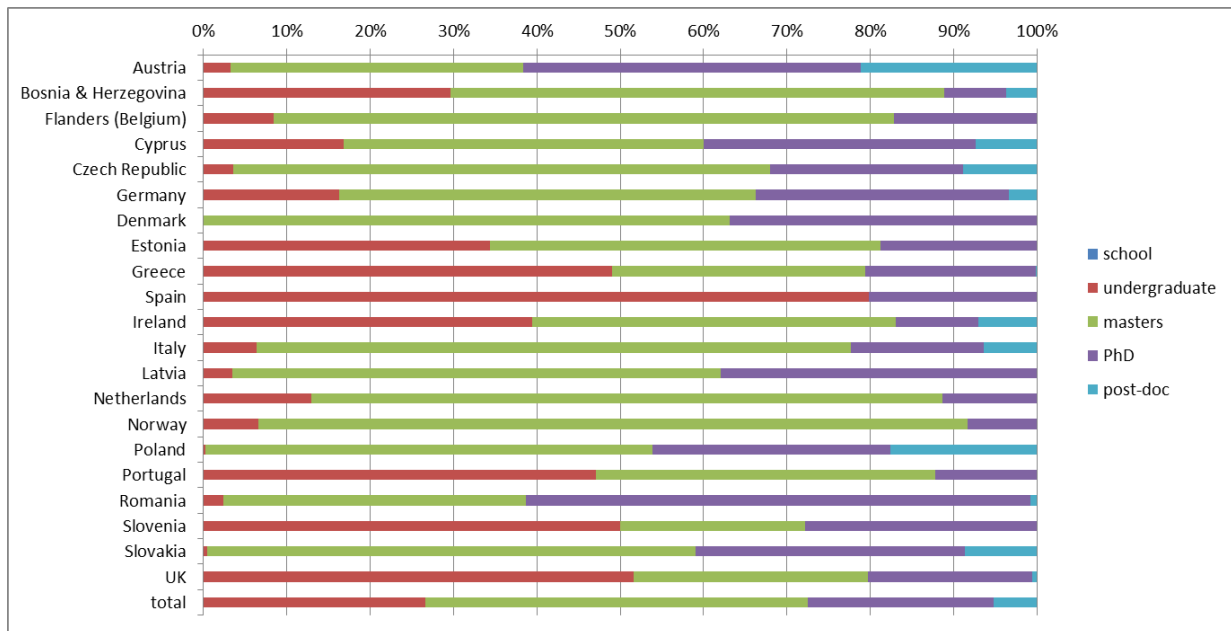


Figure 4: Highest Qualifications Held

Data were also sought on where highest qualifications were obtained (as an alternative indicator of mobility, and to identify where training was being sought outside the countries involved, and so to potentially stimulate VET providers in those countries. Not all partners were able to provide these data.

| | national | | EU | | other | | |
|----------------------|---------------|--------------|--------------|-------------|-----------|-------------|-------------|
| Austria | 401 | 86.6% | 61 | 13.2% | 1 | 0.2% | 463 |
| Bosnia & Herzegovina | 10 | 38.5% | 9 | 34.6% | 7 | 26.9% | 26 |
| Cyprus | 18 | 18.8% | 74 | 77.1% | 4 | 4.2% | 96 |
| Czech Republic | 367 | 98.4% | 5 | 1.3% | 1 | 0.3% | 373 |
| Germany | 221 | 96.9% | 5 | 2.2% | 2 | 0.9% | 228 |
| Denmark | 54.5 | 92.4% | 4.5 | 7.6% | 0 | 0.0% | 59 |
| Ireland | 105 | 73.9% | 28 | 19.7% | 9 | 6.3% | 142 |
| Latvia | 27 | 93.1% | 2 | 6.9% | 0 | 0.0% | 29 |
| Poland | 724 | 98.8% | 8 | 1.1% | 1 | 0.1% | 733 |
| Romania | 110 | 93.2% | 5 | 4.2% | 3 | 2.5% | 118 |
| <i>total</i> | <i>2037.5</i> | <i>89.9%</i> | <i>201.5</i> | <i>8.9%</i> | <i>28</i> | <i>1.2%</i> | <i>2267</i> |

Table 17: Where Highest Qualifications Obtained

In total, 90% of archaeologists gained their highest qualifications in their home country, 9% elsewhere in the EU and 1% in another country. The only countries where a minority of practitioners had qualified in that country were Bosnia & Herzegovina and Cyprus; in both of these countries, the establishment (or re-establishment) of higher education has happened relatively recently, and so some archaeologists would not have had the opportunity to complete their education in their own country at that time.

Overall, a higher proportion of archaeologists gained their highest qualification outside their own country than are working in other countries, suggesting educational mobility is more common in this sector than mobility of labour.

Qualifications – Change Over Time

By comparing the data reported in the predecessor report (Aitchison 2009) with the data captured in this project, the relative percentages of individual archaeologists who have attained particular levels of qualifications can be calculated for the eleven countries where both datasets exist (and comparing the total figures presented in the two reports).

| | School | U/g Degree | Masters | PhD | Post-Doc |
|--------------------|--------|------------|---------|------|----------|
| Austria | -41% | 2% | 10% | 16% | 14% |
| Flanders (Belgium) | 17% | 7% | -26% | 1% | 0% |
| Cyprus | 0% | 9% | -1% | -15% | 7% |
| Czech Republic | 1% | -1% | -7% | 7% | 1% |
| Germany | -18% | 7% | 11% | 2% | -3% |
| Greece | 0% | -4% | 1% | 4% | -1% |
| Ireland | -19% | 0% | 6% | 7% | 6% |
| Netherlands | -3% | 12% | 23% | -32% | 0% |
| Slovenia | -2% | -9% | 6% | 7% | -2% |
| Slovakia | 0% | -1% | -3% | 10% | -6% |
| United Kingdom | 2% | -6% | -3% | 8% | -1% |
| Total | -7% | -7% | 6% | 5% | 3% |

Table 18: Qualifications – change over time

In total, it can be seen that archaeologists have typically become more highly qualified over the six years since the predecessor project. More archaeologists are graduates, and there is an overall increase in the percentage that hold post-graduate qualifications as their highest levels of achievement. This change is most marked in Austria (where previously a high percentage of archaeologists were not graduates) and in Ireland, while in only Flanders (comparing with all of Belgium in 2006-08) and Cyprus are there relatively less postgraduates.

Salaries

Data on gross (tax included) annual salaries were collected for full-time archaeologists.

The range of average salaries, when ranked by countries, is remarkable – on average, an archaeologist in Denmark earns more than nine times as much as an archaeologist working in Bosnia & Herzegovina does. Overall, the average salary earned by an archaeologist across the 21 countries is €24,901; this figure is higher than the average earned in 12 of the participating countries.

Overall, average archaeological salaries are highest in the participating Scandinavian countries and in north-western Europe (plus Cyprus); they are lowest in central, south-eastern and Baltic countries.

| | Average archaeological salary | National average (all occupations) | Archaeological as % of national avg. salary |
|-----------------------|-------------------------------|------------------------------------|---|
| Denmark | € 56,916.00 | € 51,029.30 | 111.5% |
| Norway | € 53,478.31 | € 59,369.77 | 90.1% |
| Cyprus | € 39,593.00 | € 29,796.00 | 132.9% |
| Netherlands | € 38,941.00 | € 35,800.00 | 108.8% |
| Ireland | € 36,450.00 | € 35,970.00 | 101.3% |
| UK | € 34,182.57 | € 40,187.32 | 85.1% |
| Flanders (Belgium) | £ 30,804.00 | € 37,596.00 | 81.9% |
| Germany | € 30,669.60 | € 35,233.00 | 87.0% |
| Austria | € 27,092.00 | € 24,843.00 | 109.1% |
| average of all | € 24,901.30 | | |
| Greece | € 22,389.96 | £ 19,807.00 | 113.0% |
| Slovenia | £ 19,284.96 | € 18,313.32 | 105.3% |
| Spain | € 15,483.33 | € 22,726.00 | 68.1% |
| Portugal | € 12,500.00 | € 15,900.00 | 78.6% |
| Estonia | € 11,065.00 | € 11,376.00 | 97.3% |
| Czech Republic | € 10,819.26 | € 12,045.38 | 89.8% |
| Italy | € 10,687.00 | € 18,000.00 | 59.4% |
| Slovakia | € 9,262.00 | € 11,196.00 | 82.7% |
| Romania | € 7,012.44 | € 6,196.80 | 113.2% |
| Poland | € 6,972.00 | € 10,770.00 | 64.7% |
| Latvia | € 6,402.92 | € 8,580.00 | 74.6% |
| Bosnia & Herzegovina | € 6,289.00 | € 5,074.00 | 123.9% |

Table 19: Average Salaries in Archaeology and National Averages for all Occupations¹⁰

In general, the geographical distribution of salary averages matches reasonably closely to national average salary figures for all occupations; the highest paid archaeologists (in Denmark and Norway) are working in the two participating countries with the highest

¹⁰ Ordered by average archaeological salary

national average salaries for all occupations, and the lowest-paid archaeologists (in Bosnia & Herzegovina) are working in the country with the lowest overall average salary figure.

As shown in Table 19 and

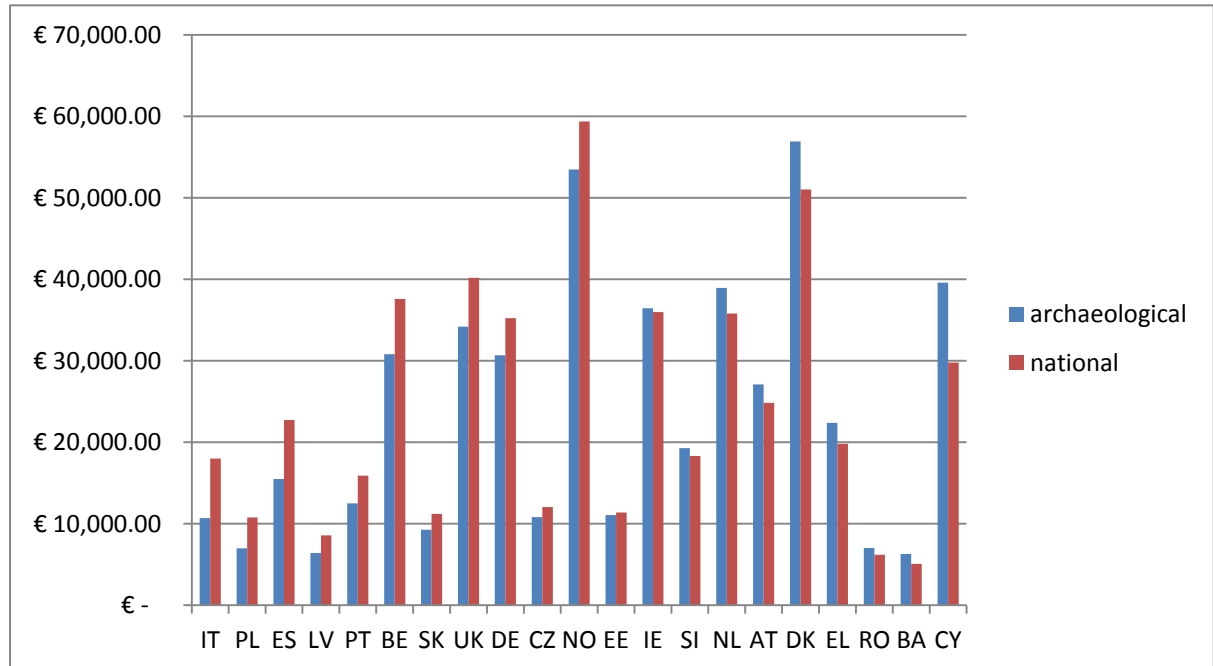


Figure 5, archaeologists are typically paid less than national averages for all occupations; in only nine countries are archaeologists more generously rewarded than the national average. The most striking outliers are in Cyprus, where archaeologists are paid considerably more than the national average, and in Italy, Poland and Spain where they are paid considerably less. Notably, in Bosnia and Herzegovina where archaeologists are more poorly paid than in any other country (in absolute terms), in comparison with the national average, they are more highly paid than in any country except Cyprus.

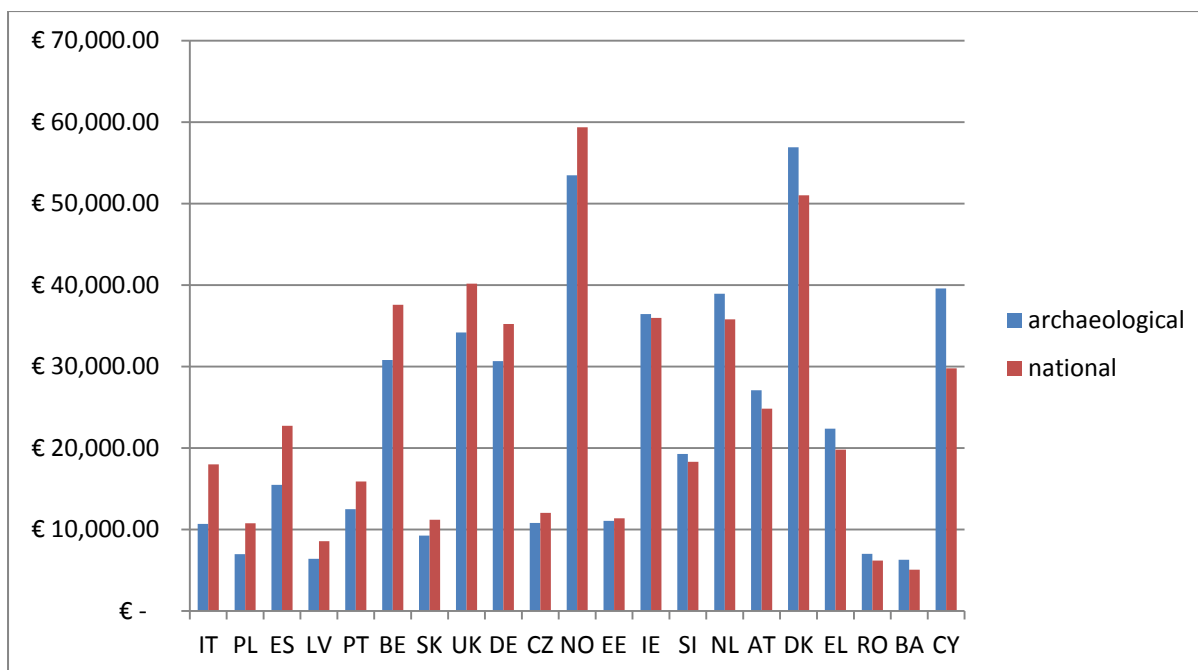


Figure 5: Comparison of Average Archaeological Salaries with National Averages

Salaries should be considered in terms of the nature of archaeological practice and the number of jobs in each participating country – in countries where there is a significant private sector element, there are many jobs (eg United Kingdom, Italy, Spain), but salaries are typically below the national norm (although this is not the case in the Netherlands or Ireland). The reverse is also true – in countries where the state plays a very significant role, with Cyprus as the clear example – there are few jobs, but they are very well rewarded.

The total amounts spent in each participating country on salaries can be easily calculated, by multiplying the average salary in each by the estimated total number of archaeologists working there. Using a tested rule-of-thumb that considers salary expenditure to typically represent 60% of the costs of running an archaeological organisation (Hinton & Jennings 2007) – therefore the total costs can be calculated as salaries multiplied by 1.67, these figures can then be used to calculate the total cost of operating these organisations – thus the total amount spent (by whoever the funders of archaeological practice might be) on archaeology in each participating country is presented in Table 20 – with the total figure of spent on archaeology in the 21 *Discovering the Archaeologists of Europe 2014* countries being estimated at slightly more than one billion Euro *per annum*.

| | Estimated individuals | Avg. salary | Aggregate salary cost | Expenditure (= salaries*1.67) |
|----------------|-----------------------|-------------|-----------------------|-------------------------------|
| United Kingdom | 4,792 | € 34,183 | € 163,802,875 | € 273,004,792 |
| Germany | 4,700 | € 30,670 | € 144,147,120 | € 240,245,200 |
| Netherlands | 1,335 | € 38,941 | € 51,986,235 | € 86,643,725 |
| Italy | 4,383 | € 10,687 | € 46,841,121 | € 78,068,535 |
| Norway | 641 | € 53,478 | € 34,279,597 | € 57,132,661 |

| | | | | |
|----------------------|---------------|----------|----------------------|------------------------|
| Greece | 1,528 | € 22,390 | € 34,211,859 | € 57,019,765 |
| Austria | 1,219 | € 27,092 | € 33,025,148 | € 55,041,913 |
| Denmark | 453 | € 56,916 | € 25,782,948 | € 42,971,580 |
| Flanders (Belgium) | 483 | € 30,804 | € 14,878,332 | € 24,797,220 |
| Spain | 796 | € 15,483 | € 12,324,731 | € 20,541,218 |
| Ireland | 338 | € 36,450 | € 12,320,100 | € 20,533,500 |
| Portugal | 862 | € 12,500 | € 10,775,000 | € 17,958,333 |
| Poland | 1,004 | € 6,972 | € 6,999,888 | € 11,666,480 |
| Romania | 858 | € 7,012 | € 6,016,674 | € 10,027,789 |
| Czech Republic | 530 | € 10,819 | € 5,734,208 | € 9,557,013 |
| Slovenia | 257 | € 19,285 | € 4,956,235 | € 8,260,391 |
| Cyprus | 96 | € 39,593 | € 3,800,928 | € 6,334,880 |
| Slovakia | 224 | € 9,262 | € 2,074,688 | € 3,457,813 |
| Estonia | 121 | € 11,065 | € 1,338,865 | € 2,231,442 |
| Latvia | 60 | € 6,403 | € 384,175 | € 640,292 |
| Bosnia & Herzegovina | 60 | € 6,289 | € 377,340 | € 628,900 |
| <i>total</i> | <i>24,740</i> | | <i>€ 616,058,066</i> | <i>€ 1,026,763,443</i> |

Table 20: Aggregate Salaries and Total Expenditure

Salaries – Change Over Time

In absolute terms, archaeological salaries in Europe across all sample countries (21 in 2012-14, 11 in 2006-08) have fallen; this is primarily explained by archaeologists in the majority of the countries that were newly surveyed in 2012-14 that had not been part of the 2006-08 project (eight of the ten ‘new’ countries - Bosnia & Herzegovina, Latvia, Estonia, Romania, Spain, Portugal, Italy, Poland) being relatively poorly paid in comparison with their peers in other states.

| Country | Avg salary for archaeologists (2006-08) | Avg salary for archaeologists (2012-14) | change | Avg archaeological salary % of national avg (2006-08) | Avg archaeological salary % of national avg (2012-14) | change |
|----------------------------------|---|---|--------|---|---|--------|
| Austria | € 31,518 | € 27,092 | -14% | 122% | 109% | -13% |
| Flanders (Belgium) | € 28,819 | £ 30,804 | 7% | 104% | 82% | -22% |
| Cyprus | € 40,656 | € 39,593 | -3% | 175% | 130% | -45% |
| Czech Republic | € 10,145 | € 10,819 | 7% | 108% | 90% | -18% |
| Germany | € 31,071 | € 30,670 | -1% | 108% | 87% | -21% |
| Greece | € 28,925 | € 22,390 | -23% | 108% | 113% | +5% |
| Ireland | € 37,680 | € 36,450 | -3% | 97% | 101% | +4% |
| Slovakia | € 6,030 | € 9,262 | 54% | 83% | 83% | 0% |
| Slovenia | € 16,827 | £ 19,285 | 15% | 111% | 105% | -6% |
| United Kingdom | € 34,392 | € 34,183 | -1% | 78% | 85% | +7% |
| Avg. of all participating states | € 31,134 | € 24,901 | -20% | | | |

Table 21: Salaries - change over time

In the countries where comparable data exist, salaries have typically fallen, although they have risen very notably in Slovakia and also in Slovenia, the Czech Republic and in Flanders.

In only three of the countries where comparable data are available have average archaeological salaries risen when compared with national averages for all workers (UK, Ireland and Greece); in Slovakia they have risen at the same rate, but in the other six countries (Austria, Flanders, Cyprus, Czech Republic, Germany and Slovenia), archaeologists are relatively poorer within their own countries than they were in 2006-08.

Contracts

Information was gathered about the kinds of contracts held by employed archaeologists; this particularly related to whether people are on short-term, temporary (time-limited) contracts or on permanent contracts.

This caused confusion for some partners between the issue of the length of contract and the nature of the number of contracted hours (part-time or full-time).

| | Permanent | Limited | Permanent% | Limited% |
|----------------------|--------------|--------------|--------------|--------------|
| Austria | 60 | 84 | 41.7% | 58.3% |
| Bosnia & Herzegovina | 18 | 6 | 75.0% | 25.0% |
| Flanders (Belgium) | 193 | 89 | 68.4% | 31.6% |
| Cyprus | 69 | 25 | 73.4% | 26.6% |
| Czech Republic | 124 | 190 | 39.5% | 60.5% |
| Germany | 535 | 240 | 69.0% | 31.0% |
| Denmark | 47 | 10 | 82.5% | 17.5% |
| Estonia | 57 | 15 | 79.0% | 21.0% |
| Greece | 877 | 412 | 68.0% | 32.0% |
| Spain | 252 | 267 | 48.6% | 51.4% |
| Ireland | 65 | 41 | 61.3% | 38.7% |
| Italy ¹¹ | 101 | 346 | 22.6% | 77.4% |
| Latvia | 25 | 2 | 92.6% | 7.4% |
| Netherlands | 326 | 71 | 82.1% | 17.9% |
| Norway | 274 | 847 | 24.4% | 75.6% |
| Poland | 873 | 19 | 97.9% | 2.1% |
| Portugal | 161 | 46 | 77.8% | 22.2% |
| Romania | 89 | 32 | 73.6% | 26.4% |
| Slovenia | 50 | 74 | 40.0% | 60.0% |
| Slovakia | 167 | 21 | 88.8% | 11.2% |
| UK | 676 | 150 | 81.9% | 18.1% |
| <i>Total</i> | <i>5,038</i> | <i>2,987</i> | <i>62.8%</i> | <i>37.2%</i> |

Table 22: Archaeologists' Contract Lengths

Across Europe, approximately two-thirds of archaeologists work on permanent (or “open-ended”) contracts; the other third work on temporary or time-limited contracts.

Permanent contracts are almost universal in Poland (97.9%) and Latvia (92.6%); in contrast, the majority of archaeologists in Austria, Czech Republic, Spain, Italy, Norway and Slovenia are employed on time-limited contracts; Italian and Norwegian archaeologists have particularly limited job security, as in both of those countries over 75% of archaeologists work under such contracts.

¹¹ Italian limited contract total includes “freelancers”

Contracts – Change Over Time

These data were not universally collected in 2006-08, and so there are no time-series datasets to illustrate change over time in this area.

Working Hours

Data were gathered on whether individuals were employed part-time or full-time, so identifying whether archaeological work was the only source of income for individual workers.

| | Full-time | Part-time | FT % | PT% |
|------------------------|--------------|----------------|--------------|--------------|
| Austria | 141 | 12 | 92.2% | 7.8% |
| Bosnia & Herzegovina | 77 | 2 | 97.5% | 2.5% |
| Flanders | 193 | 89 | 68.4% | 31.6% |
| Cyprus | 95 | 1 | 99.0% | 1.0% |
| Czech Republic | 243 | 130 | 65.1% | 34.9% |
| Germany | 625 | 454 | 57.9% | 42.1% |
| Denmark | 49 | 7 | 87.5% | 12.5% |
| Estonia | 53 | 19 | 73.6% | 26.4% |
| Greece | 253 | 21 | 92.3% | 7.7% |
| Spain | 434 | 85 | 83.6% | 16.3% |
| Ireland | 47 | 36 | 56.6% | 43.4% |
| Italy | 315 | 134 | 70.2% | 29.8% |
| Latvia | 28 | 1 | 96.6% | 3.4% |
| Netherlands | 184 | 189 | 49.3% | 50.7% |
| Norway | 386 | 35 | 91.7% | 8.3% |
| Poland ¹² | 847 | 24 | 97.2% | 2.8% |
| Portugal | 183 | 1 | 99.5% | 0.5% |
| Romania ¹³ | 89 | 32 | 73.6% | 26.4% |
| Slovenia | 48 | 5 | 90.6% | 9.4% |
| Slovakia ¹⁴ | 167 | 21 | 88.8% | 11.2% |
| UK | 691 | 145.6 | 82.6% | 17.4% |
| <i>Total</i> | <i>5,148</i> | <i>1,443.6</i> | <i>78.1%</i> | <i>21.9%</i> |

Table 23: Full-time / Part-time Work

Three-quarters of professional archaeologists across the 21 countries studied work as full-time archaeologists, but there is significant national variation. At one extreme, 99% of Cypriot archaeologists work full-time, while at the other less than half of Dutch archaeologists do so.

The effects of the financial crises have affected the working patterns in many sectors, in many countries. It could be reasonable to interpret the relative decrease in full-time work in archaeology as a response to the changing economic situation. It is also noticeable that this has coincided with a trend towards women making up a larger part of the workforce, but it

¹² Polish data for permanent positions only

¹³ In Romania, "Temporary contract (part-time)"

¹⁴ In Slovakia – respondents could identify describing posts as permanent, temporary (FT), temporary (PT)

cannot be demonstrated that a more female workforce is a causal factor in the increase in part-time positions not can the increase in part-time positions be demonstrated to be a causal factor in the gender balance shift in the sector.

Working Hours – Change Over Time

| | FT 2006-08 | FT 2012-14 | PT increase / FT decrease | PT 2006-08 | PT 2012-14 |
|--------------------|------------|------------|------------------------------|------------|------------|
| Austria | 76% | 92% | -16% | 24% | 8% |
| Flanders (Belgium) | 90% | 68% | +22% | 10% | 32% |
| Cyprus | 95% | 99% | -4% | 5% | 1% |
| Czech Republic | 75% | 65% | +10% | 25% | 35% |
| Germany | 75% | 58% | +17% | 25% | 42% |
| Greece | 98% | 92% | +6% | 2% | 8% |
| Ireland | 97% | 57% | +40% | 3% | 43% |
| Netherlands | 73% | 49% | +24% | 27% | 51% |
| Slovakia | 87% | 89% | -2% | 13% | 11% |
| Slovenia | 98% | 91% | +7% | 2% | 9% |
| United Kingdom | 89% | 83% | +6% | 11% | 17% |
| <i>Total</i> | <i>86%</i> | <i>78%</i> | <i>+8%</i> | <i>14%</i> | <i>22%</i> |

Table 24: Full-time / Part-time Work - change over time

Over the six years since the predecessor project, it has become more common for archaeologists across the eleven countries for which we have data from both this and the predecessor study to work in part-time positions. Only in Austria, the Czech Republic and Slovakia has the percentage of archaeologists in full-time (rather than part-time) employment increased (it is perhaps significant to note that in all three of these countries, the total number of archaeologists in work has increased over this period - see Table 4).

These data may be closely related to broader, societal economic changes, as the nature of work has changed in the post- and ongoing-economic crisis period. It is also possible that there is a correlation between the increase in the number of women working in archaeology and the increase in part-time work, but this cannot be demonstrated statistically and certainly cannot be considered to be causal.

Archaeological Employers (Organisations)

Partners provided “Data about the types of organisation operating in archaeology in country by activity and organisational basis”.

Specifically, these were data about how organisations are constituted (eg – part of national government, part of local / municipal government, universities, private companies etc) and what kind of work they do – broken down into the categories of doing fieldwork, giving advice, providing education, providing museum services.

These data cannot be presented in a transnational, tabulated form

It is clear that the sector is organised on different models, which manifest in variable employment patterns exist within the sector across Europe.

However, these models are all fundamentally underpinned by structures that recognise archaeological work as being something of public benefit, as seen by the stimulation of archaeological work through the Environmental Impact Assessment process (above) (which is then variably extended to other land-use change development), and by the requirements of the Valletta Convention, above).

It is clear that across Europe, the majority of archaeologists undertake work that relates to protecting archaeological heritage in the land-use development process. These people may be undertaking fieldwork, and so recording archaeological deposits and materials, or they may be involved in managing the process, interacting with the organisations that are directly causing the land-use change (whether those organisations are public sector or private bodies). What varies by country to country is how the organisations that the archaeologists work for – whether these are private sector organisations, working to requirements set by state or local government agencies, or whether they too are state or local government agencies. In some countries third sector, or NGO, bodies also play a role – but they essentially act as though they are commercialised, private-sector bodies.

The variation between countries (and in some case, between regions) is the degree to which commercialisation is encouraged. The commercialised model is not one which is entirely without state influence – in terms of environmental economics, this is about requiring the developers (those that are affecting the archaeological resource) to comply with legal requirements. To do so, the developers have to pay (in some form) to mitigate for the damage they are causing, and this will be accomplished either by redesign (minimising damage) or by record (engaging archaeologists to undertake investigations and to curate the results of those investigations). Whether the work is paid for directly by the developers or whether it is paid for from the public purse, the fundamental nature of the work is unchanged.

Models of archaeological delivery cannot be simplified into two ‘socialist’ and ‘capitalist’ models as Kristiansen (2009) suggests; the different models used can be imagined as being

plotted two dimensionally, with one axis representing funding source – public to private – and the other representing the constitution of the delivery bodies – again, public to private. There are no countries where the only funders are private; the state is always ultimately a ‘client’ in every European country. Sometimes this is through the state commissioning private enterprises to undertake work, and sometimes it is through the state engaging other organisational arms of the state, or elements of local or regional government. In Denmark, archaeological investigations are provided by public services (regional museums), funded by the public purse – a state service, whether the ultimate beneficiaries (the developers) are public or private entities.

In countries where private enterprises undertake the majority of development, and so are the principal funders, the archaeological work can then be either delivered by state agencies (funded through hypothecated taxation on the developers, or from general taxation – thereby breaking the link between the ‘polluter’ and payment for their actions) or by private enterprises through being directly commissioned. In the United Kingdom, most archaeological activities are delivered by organisations that compete with each other commercially (whether those organisations are constituted as profit-making private companies, or more commonly as not-for-profit, ‘charitable’ enterprises), and they are funded on the basis of fees for work done, whether the clients are private or public sector organisations.

Details of the models applied in each participating country within the *Discovering the Archaeologists of Europe 2014* project are presented in the national reports.

Archaeological Employers (Organisations) – Change Over Time

These data were not collected in a consistent way in 2006-08, and so there are no time-series datasets to illustrate change over time in this area.

Vocational Education and Training

Data were collected on training needs and skills shortages from the perspectives of employers (VET demand). While this was a core data area, owing to variations of national practice there was no specific, shared methodological framework (eg skills lists) provided to the Partners.

Data have been collected from employers (and in some cases from individual workers) on training needs, skills gaps and shortages within archaeology on a nation-by-nation basis, and for each participating state, particular skills issues (gaps or shortages) were identified, both in skills areas that are vocationally specific to archaeology and in areas of generic non-archaeological skills. These data were gathered by using differently framed questions by the project partners in each state, taking in to account the differing approaches to delivery of practice in the participating countries, and this then means that while this information is presented in the national reports at www.discovering-archaeologists.eu, direct transnational comparisons are not possible.

In terms of VET delivery, throughout Europe, the principal deliverers of vocational education and training in archaeology are university schools or departments of archaeology. This has meant, and continues to mean, that vocational education and training is delivered in the context of being a complementary component of academic training, which is delivering knowledge about the physical traces of past human lives and environments. There are few alternative VET providers.

Vocational Education and Training – change over time

Comparisons of national data from 2006-08 and 2012-14 are made where available in national reports, all of which are available at www.discovering-archaeologists.eu.

Conclusions

Discovering the Archaeologists of Europe 2014 has achieved significant results, in terms of gathering information on the working practices and skills needs of approximately 25,000 working archaeologists, the overwhelming majority of a total estimated European population of 33,000. It has identified that this is an economic sector worth over €1bn per year, and it has recognised a changing working population, which is becoming more female, with changing working practices – particularly more part-time working.

The project has provided information and recommendations to employers, individual archaeologists and policy makers in the 21 participating countries and beyond, both within Europe and globally (in large part due to the contributions of the European Association of Archaeologists). The Multilateral Network of participating organisations has expanded and become stronger.

As is discussed below, there are few other sources of comparable data in Europe or elsewhere in the world, and so the project as a whole is having a global international impact.

Multilateral Network

Specific evaluation comments from the European Commission on the completion of the predecessor project (Discovering the Archaeologists of Europe, in 2006-08) stated that the Commission had been impressed by the content and materials produced, and the specific point that two countries had joined the project midway through and had contributed without receiving Commission funding was impressive, and “encouraging for the future widening of the network across Europe”.

The Network was initially formed of 21 co-beneficiary Partners (including two from non-EU member states, emphasising the breadth of the Network), but the Hungarian Partner had to withdraw before contractualisation, and their place was taken by an Estonia Partner. Two associate Partners, from the Netherlands and Denmark, joined the project after work had commenced (and funded their contributions entirely from national, not European Commission, sources). In total the 23 Partners and associate Partners were based in 21 separate European states, 19 of which were within the European Union.

The network of partners has been maintained through the annual meetings of the European Association of Archaeologists; partners met and updated each other at EAA Annual Meetings in Plzen and in Istanbul, which have been formal valorisation opportunities (with conference sessions organised). These have coincided with formal partner meetings, which took place privately before the conferences.

The partners have discussed the possibility of a further iteration of a project similar to this one, updating and disseminating information about employment and skills needs in archaeology after a further period of five years. This could also involve new partners and European states which are not part of the currently proposed partnership.

As all of the information used about the methodology and results are freely and publicly available through the project website at www.discovering-archaeologists.eu, other organisations are encouraged to undertake their own, similar projects, as happened following the 2006-08 predecessor project, when separate research was carried out in Bosnia and Herzegovina. The results of that were then promoted via the project website, www.discovering-archaeologists.eu and this led directly to the involvement of a partner in this project representing Bosnia and Herzegovina.

The Partnership is strong, and the Partners are actively seeking bilateral and multilateral opportunities to continue to work together. At the final project meeting, all reiterated their support for the idea of a further repetition of the project in five years' time, in order to ensure that archaeology continues to address VET issues and to expand and enhance the time-series datasets that have been collected.

External Data and Global Context

Few comparable external data are available from other European states; the *Archaeology in Contemporary Europe* project, supported by the European Commission the Culture Programme 2007-13 aimed to identify the archaeologists of Europe through quantitative aspects. “Comparable data is sought across Europe on who counts as an archaeologist in each country (institution), with what diplomas, specialisations and employments, as well as the numbers of archaeologists per surface, GDP, sites, and volume of infrastructure activities” (ACE, no date), but at the time of writing, these results had not been made publicly available. An estimated figure for the total numbers of archaeologists working in France - 4,050 - has been published (Depaepe, 2013).

The *Discovering the Archaeologists of Europe* projects have been global exemplars for the sector, as there are few comparable datasets collected anywhere else.

In Australia a series of comparable studies have been undertaken, directly influenced by the previous UK component of the first *Discovering the Archaeologists of Europe* project (Ulm *et al* 2013, 32), with the most up-to-date figures presented in Ulm *et al* (2012), which estimated that in 2010 there were between 500 and 600 professional archaeologists working in Australia.

Data have also been collected for what may be the two largest global sectoral workforces, Altschul & Patterson (2010) presented an estimate of 11,350 people working as professional archaeologists working in all sectors across the USA; the number of people working in the sector in Japan declined from a peak in 2000 of 7,111 individuals to 6,255 in 2008 (Agency for Cultural Affairs 2009).

It has been recognised that the approach used by the *Discovering the Archaeologists of Europe* projects has value beyond simply estimating total populations of archaeologists, as it is in fact a key tool for measuring capacity and thus can be part of a capacity building process.

ICOMOS (2013) sees the development of people as a tool that enhances protection of the historic environment: “*Capacity Building through education and training refers to strengthening the knowledge, abilities, skills, and attitudes of people with direct or indirect responsibilities for heritage conservation and management.*”, while to the United Nations’ agencies, skills, experience and knowledge are the building blocks of individual performance, which can be acquired formally through education and training, and informally through doing and observing and which lead to social and economic change.

The United Nations Development Programme (UNDP 2009, 2010) sees this process as best carried out through a five stage capacity development process, which includes measurement both before and after capacity development programs are implemented. The predecessor *Discovering the Archaeologists of Europe* project collected data in twelve countries in 2008, just before the onset of the global financial crisis, and the cycle has now

recorded what the crisis has done – giving individual archaeologists, employers, educators and policy-makers data to work with as they plan for the future.

The value of this model has led to discussion of a potential *Discovering the Archaeologists of the Americas* project, collecting and sharing information for professional archaeology in every country in South, Central, Caribbean and North America (Majewski 2014), and this could all combine with further cycles of national or regional projects to be part of an ongoing macro-project, a *Discovering the Archaeologists of the World* that can identify and support professional archaeological practice and education globally.

Recommendations

The project presents recommendations to individuals (both professional archaeologists and aspirants), to employers, to vocational education and training providers, to policy makers and to the co-beneficiary members of the project's Multilateral Network partnership.

To individuals

- Use the data provided to consider your own career trajectories (including the potential for working in countries other than your own) and the skills that you will need to achieve their goals.

To employers

- Use the data provided to have a better anticipation of future skills needs for each business unit.
- Explore opportunities to share knowledge and expertise with vocational education providers.

To vocational education and training providers

- Use the data provided to recognise where employers have identified their skills demands, and to design and deliver training that matches those labour market needs in order to enhance the employability of trainees.

To Policy Makers

- Seek to ensure that an ongoing cycle of projects is supported that continues to gather data on a five-yearly basis so that up-to-date information to individual archaeologists, archaeological employers, policy makers and other interested bodies can be made constantly available.

To members of the Multilateral Network partnership

- Continue to seek opportunities to work together, bilaterally or multilaterally in order to maintain the Multilateral Network that this project has established.
- Strongly consider expanding the Multilateral Network in any future iteration of this project in order to bring in participants from states that did not contribute to this project in 2012-14, particularly (but not exclusively) France, Scandinavian and west Balkan states in order to further enhance the quality and applicability of the project's results.

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