Cyprus – Country report

Objectives of the project

The aim of our project is to improve expertise in industrial relations in the higher education sector and to promote the exchange of information and experience among EFEE and ETUCE members. More specifically, the project aims to:

- Reach a shared understanding, and possibly a ESSDE outcome, about the specific challenges facing early career researchers in Europe incorporating the perspectives and roles of trade unions and employers and the available options for responding to these challenges.
- Provide insight to the European Social Partners in Education on what we can do to improve social dialogue on industrial relations and employment relations issues pertaining to early career researchers.
- Explore where dialogue between national social partners improves support for early career researchers.
- Improve awareness of the existing work in the area of early career researchers (among others European Charter for Researchers and the Code of Conduct for the Recruitment of Researchers (2005), the HR Strategy on Researchers (2008) and the "HR Excellence in Research logo of the EC", The UNESCO Recommendation (1997), the ETUCE report (2011)) their implementation and benefits in improving research quality through the provision of high quality support for early career researchers.
- To understand the trends in the career progression of female researchers, including areas of progress, and identify initiatives that have been successful in improving equality in career progression, particularly those initiatives that provide support to early career researchers.
- To produce a set of resources including case studies and practitioner-oriented research and policy guidance to complement the existing international work in this area.
- To facilitate peer learning between national social partners in the education sector, especially in the higher education sector; to exchange best practices and learning experiences.
- To contribute to the European social dialogue between employers' organisations and trade unions in the education sector, more specifically to continue the current work of the Working Group 3 on Higher Education & Research and to improve the coordination, functioning and effectiveness of the European Sectoral Social Dialogue for Education.

This case study is one of six case study reports from this research project. The case study countries are Cyprus, Finland, Germany, Italy, Romania and the United Kingdom. The final project report, due to be published in December 2014, will draw on the findings from each country. The in-depth case studies will be published as appendices to the main report.

Project partners

Leading applicant is: Universities and Colleges' Employers Association (UCEA) of the UK. Co-applicants are: European Federation of Education Employers (EFEE) and European Trade Union Committee for Education (ETUCE).

Affiliated entities are: Association of Finnish Independent Education Employers, Ministry of Education and Culture of Cyprus.



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1 Country context

Cyprus is the Eastern-most country in the EU and the Mediterranean island-nation is home to just under one million people. The country has been independent from British rule since 1960. On May 1, 2004, Cyprus became a full member State, along with nine other acceding countries.

The Cypriot economy was severely affected by the global financial crisis and the economy is in recession following a national financial crisis in 2012-13 which required the Cypriot government to request €1.8 billion of foreign aid to support the Cyprus Popular Bank. The crisis ultimately necessitated a €10 billion bailout from the 'Troika' with a commitment to a three-year restructuring programme. Cyprus's economy contracted by 5.4 per cent in 2013 and public debt as a percentage of GDP will peak in 2015 at 126 per cent. According to the IMF, the economy is expected to return to growth in late 2015 or 2016. Inflation has fallen in each of the past three years and was just 1.5 per cent in Q1 2013.

The response to the challenging economic environment has been underpinned by a significant reduction in government expenditure. This has included an 8.2 per cent reduction in public sector wages in the first half of 2013. Unemployment remains high at 14.9 per cent and youth unemployment is particularly severe (40.8 per cent).¹

While the economy is recovering slowly, the country is optimistic about its future. According to the Cyprus Chamber of Commerce and Industry, Cyprus is 'focused on restructuring and revitalising its economy' and emphasises its strong corporate structures as well as investment opportunities in tourism and the discovery of hydrocarbons, which has the potential to provide up to 30 per cent of Europe's additional gas need by 2025.²

2 Research and innovation

By European standards, Cyprus is at the lower end of research and development intensity with just 0.48 per cent of GDP (2011) invested in R&D compared to 1.9 per cent in the EU, although this figure has increased from 0.18 per cent in 1991. The largest areas of expenditure are in the natural sciences and agricultural sciences. Despite a relatively low investment in R&D, Cyprus ranked 14th out of the EU27 on the 2013 Innovation and Enterprise scoreboard³ and was just shy of the average EU score. Cyprus scores particularly well in international scientific co-publications, non-R&D innovation expenditure and community trademarks but performs less well relative to its EU counterparts in new doctorate graduates, patent indicators, and R&D expenditure in the business sector.

The economic reliance on tourism and other business services and a lack of established research institutions and infrastructure means that R&D will take some time to develop in Cyprus and the reliance on public funding (69 per cent of investment – the highest in the EU) will continue. The dominance of micro-enterprises that comprise the economy is an additional barrier to the growth of R&D as these enterprises are less likely to employ researchers and invest in R&D.

¹ Eurostat, as at July 2014 and Q4 2013 respectively.

² Cyprus Chamber of Commerce and Industry, 2013. *Cyprus: The road ahead*, July 2013.

³ European Commission (2013), *Innovation Union Scoreboard 2013*.

http://ec.europa.eu/enterprise/policies/innovation/files/ius-2013 en.pdf

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The 2013 Researcher Report notes that an increase in public research funding has been unfocused and that just 17.5 per cent of R&D expenditure was performed by business enterprise compared to an EU average of 61.5 per cent.⁴ The country is also reliant on European funding and has been successful in raising significant funds through the FP7 (\leq 80m). Although Cypriot authorities consider the current level of investment as near saturation point, the 2011 Innovation Union competitiveness report notes that the contrast between high levels of investment in education and low research investment puts the country at risk of brain drain.⁵

The research, development and innovation system in Cyprus is the responsibility of the Ministerial Board while policy is determined by the National Research and Innovation Council which is chaired by the President of the Republic and advised by the Cyprus Scientific Council (CSC). Strategic direction in research and innovation in Cyprus is likely to be bolstered by the establishment of a five member National Committee for Research, Innovation and Technological Development, currently led by Professor Philippos Patsalis. The Committee has been tasked with proposing a comprehensive research, innovation and technological development framework for Cyprus. As part of this work it has reviewed the situation in other member states and has put forward recommendations in order to reform the system by late 2014/early 2015. The Cyprus Research Promotion Foundation's (RPF) work on 'smart specialisation', undertaken with funding from the EU to link research with the economy and understand which sectors provide Cyprus with a competitive advantage, will help underpin the evidence-based for the Committee's work.

The RPF was established in 1996 to promote the development of scientific and technological research in Cyprus and distributes national research funding to Cyprus's universities and research institutes⁶ as well as acting as the hub for European programme funding (Horizon 2020). The national framework programme is based around thematic research objectives which are updated periodically. The RPF also hosts Cyprus's national contact points which provide support services to researchers across all programme activities and supports the implementation of bilateral agreements on R&D signed by the government.⁷

In addition to the seven universities in Cyprus, there are several research institutes, three of which have been established by the Cyprus Institute⁸ since 2007. Other significant institutes include the Agricultural Research Institute (established 1962) and the Cyprus Institute of Neurology and Genetics (established 1992). There are also a small number of business incubators, such as Diogenes at the University of Cyprus⁹, which seek to commercialise scientific research through the creation and development of start-ups.

⁴ Deloitte (2013), *Researchers' Report – Country profile: Cyprus*.

http://ec.europa.eu/euraxess/pdf/research_policies/country_files/Cyprus_Country_Profile_RR2013_FINAL.pdf ⁵ European Commission (2011), Innovation Union Competitiveness Report – Country profile: Cyprus.

http://ec.europa.eu/research/innovation-union/pdf/competitiveness-report/2011/countries/cyprus.pdf ⁶ These include the Cyprus Institute of Neurology and Genetics, the Cyprus Institute and the Agricultural Research Institute.

⁷ http://www.mfa.gov.cy

⁸ <u>http://www.cyi.ac.cy/</u>

⁹ http://www.diogenes-incubator.com/

3 Higher education in Cyprus

Higher education in Cyprus is shaped by the European Higher Education Area as outlined by the Bologna Process. Higher education policy is determined and overseen by the Department of Higher and Tertiary Education (DAAE) which is part of the Ministry of Education and Culture.

The University of Cyprus was established as the first publicly funded university in 1992 which means that the country is still in the formative stages of establishing a higher education and research system compared to many of its EU counterparts. The Open University of Cyprus and the Cyprus University of Technology are the two other public universities that have since been established and five private universities have been established since 2007 following enabling legislation in 2005 – Frederick University, European University – Cyprus, Nicosia University, Neapolis University and University of Central Lancashire.

The student population has grown rapidly and Cyprus now has one of the highest rates of higher education attainment in the EU at 47.1 per cent (2008). Up until 2008-09 the number of Cypriots studying HE abroad was higher than those studying in Cyprus but since 2007-08 the number studying abroad has fallen and the number of Cypriots studying in Cyprus now exceeds the number studying abroad.¹⁰ However, there are still high numbers studying abroad; the majority study in Greece (55 per cent) and the UK (35 per cent). Up until the 2000s there was a negligible number of international students in Cyprus, but by 2008-09 there were over 10,000 - numbers fell just below this mark in 2011-12 (8,540). In total there were 31,772 students studying in 2011-12.

Universities have had to accommodate significant cuts to their public funding which has had an impact on research and ability to maintain and develop infrastructure. The higher education budget has been reduced from €100 million to around €70 million which is in addition to around €50 million in external funding.

4 Social dialogue and HE employment relations

Industrial relations in Cyprus are based on voluntarism and tripartite cooperation with the government playing an advisory role. Trade union membership is high with a density of 50 per cent. Despite established machinery, social dialogue and collective bargaining in Cyprus has been constrained by austerity which has limited the scope of discussion and negotiation. A representative from the trade union movement said that because of the economic crisis, the media has created a difficult and unfavourable climate for the trade unions and has focused on the pay and conditions of employment enjoyed by public sector employees.

Although the trade union movement is very well-developed in Cyprus, there is no trade union representation within higher education. As contracts are aligned to civil servant terms and conditions no collective bargaining takes place for academic staff. There is a 20,000 strong civil servant trade union, the Pancyprian Public Servants' Trade Union (PASY-DY), but this does not have a branch for academic staff. There are three trade unions representing respectively staff in primary, secondary and technical education. According to one trade union representative, efforts have been made to engage higher education staff in the trade union movement but these have been unsuccessful to date. Staff

¹⁰ <u>http://www.highereducation.ac.cy/en/historical-background.html</u>

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voice is largely channelled through university senates which have representation from the academic workforce and there are staff associations at some of the universities for the purposes of consultation. Unfortunately this means that a trade union perspective on research careers in Cyprus is not possible.

Academic and support staff at the publicly-funded universities are employed directly by the Ministry of Education and salaries are pre-determined – professorial salaries are aligned to those of the independent judiciary. Lecturers are appointed for an initial three-year term after which they are evaluated for suitability for a second three year term. At the end of the second term the lecturer is either promoted to professor or is made redundant. Research assistants / postdoctoral researchers are employed directly by the university and appointed by the professor managing the relevant research grant. Contracts vary but do not necessarily provide medical coverage – for example at the University of Cyprus the employee may join the Government Medical Plan or contribute 4 per cent of gross salary to join the Complementary Medicine Scheme. Enhanced sick leave is provided after one-year but maternity is often at the statutory minimum (12 weeks leave).

5 Research careers in Cyprus

Due to the low-knowledge intensity of the economy and the young higher education sector there are limited opportunities for careers in research, particularly outside of academia. The embryonic research base in Cyprus is reflected in its workforce profile with only 2.2 researchers (full-time equivalent) per thousand labour force in 2010 compared to 6.6 in the EU27 and 7.2 in its Innovation Union reference group.¹¹ In full-time equivalent terms, the number of researchers in Cyprus increased from 682 to 915 between 2005 and 2011. Cypriot researchers have, however, been successful in accessing European funding and have received €12.3 million in funding through Marie Curie actions supporting 168 researchers with a further 128 researchers coming to do research in Cypriot organisations.¹² While the number of MC grants per capita is high, the majority of Cypriot fellows have elected to move abroad – mainly to Greece, the US and the UK.

University employers did not consider there to be a 'research only' career path within higher education system as the opportunities beyond the postdoc level, with few exceptions, are teaching and research.¹³ At the roundtable it was noted that ECRs do not see a career path within Cyprus and that it is a temporary phase of around 3 to 5 years – there is no path that will keep them in research a long time and individuals can be discouraged by the discontinuity. There are research units within the universities, which have comparable status to academic departments and employ researchers on a contract basis but not on a permanent / tenure-track basis. There is also the possibility of a research career in research institutes outside HE but these positions are limited. It is estimated that there are around 200 - 250 contract researchers in Cyprus who are usually employed as special scientists on research project moving from one project to another. It is possible that these individuals may want to go into permanent academic positions but are unable to secure employment.

During the roundtable discussion there was concern that the limited career opportunities and lack of career path mean that there is a lack of return on the investments made in PhD and research fellows

¹¹ Researcher report 2013.

¹² FP7-PEOPLE Marie Curie Actions - Country fact sheet: Cyprus. *26 May 2014*.

¹³ Public universities can promote professors to focus solely on research.

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because they are unable to continue their career in their discipline or in Cyprus. It was felt important that the sustainability of the career cycle is taken into consideration in designing new funding schemes at the early stage.

5.1 Early career researchers

'Early career researchers' are not strictly defined in Cyprus but there are several programmes led by the RPF which are aimed at 'young researchers'. These include PENEK and DIDAKTOR as well as the young research award (no more than seven years research experience after PhD). PENEK is aimed at PhD candidates who study either in Cyprus or at an HEI abroad with the intention of involving new scientists in the research environment of Cyprus and the acquisition of knowledge and skills in scientific and technological fields of high interest to Cyprus. The DIDAKTOR programme is aimed at researchers under 40 that have received a PhD in the last five years with a long-term aim of developing the next generation of researchers in Cyprus.

Doctoral candidates are regarded as employees and have a contract of employment with the university. University employers did not operate formal definitions of an ECR but were aware of the term and felt that it could include PhD candidates as the majority are employed through a research contract but believed that the postdoc stage was the first stage of the career.

There is no collective agreement covering researchers in universities but the RPF sets clear conditions for the fellows that it funds, including salaries and other benefits. It makes two visits to the host organisation during the duration of the funding to ensure that the individual is being treated fairly and in line with the conditions of employment. This role is important as there were situations in the past where individuals were not receiving competitive salaries. The salaries for researchers (minimum doctoral salary €1,750 per month) are competitive in Cyprus and the RPF says that this needs to be enough for the individuals to dedicate themselves to the job and to attract talent. Marie-Curie funding is seen as the European benchmark for terms and conditions of employment.

Although there is no trade union representing academic or research staff, the Scientific Association of Doctoral Candidates Cyprus (ESYDIK)¹⁴ is an association for PhD candidates and 'young researchers' which has been supported by the University of Cyprus and the Ministry of Education and Culture since 2008. The association aims to improve study and research conditions for PhD candidates and young researchers and strengthen relationships between young and experienced researchers. It provides information on relevant training and events as well as running its own conferences and workshops on topics such as 'the employment outlook for young researchers'.

6 The European Charter and Code for Researchers in Cyprus

According to one interviewee, the Charter and Code were initially embraced and there was enthusiasm for the principles and 15 organisations signed up. It is one of the few countries in the EU where all eligible institutions have signed the Charter. However, according to interviewees the interest in the Code and Charter has faded somewhat, although the economic crisis has been a key reason as financial challenges have diverted attention away from other agendas.

¹⁴ <u>http://cyphd.org/</u>

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Cyprus employers reflected positively on the principals and impact of the Charter and Code as well as the HR Excellence in Research badge. The Charter and Code has been signed by all eight universities, both public and private, and the HR Excellence badge has been achieved by the University of Cyprus and the Cyprus Institute of Neurology and Genetics. For the employers it was felt to add credibility to the employment practices of the institution but also to make researchers feel better about the policies and processes of the institution which were deemed to be consistent with European standards. One university explained that it created an ad hoc committee involving HR as well as researchers to review the gap analysis and action plan. As the badge has been recently acquired it is too soon to evaluate its impact in a comprehensive manner.

7 Challenges for early career researchers in Cyprus

The university employers felt that above all Cyprus needs to develop its research culture and infrastructure. This was also the main area of focus of the roundtable held at the University of Cyprus. Some attendees at the roundtable felt that there was a lack of political will to develop the country into an innovation country despite the high level of tertiary education in the labour market. One contributor emphasised that Cyprus is not lacking 'capacity, expertise or minds' but is lacking political support. For example, the University of Cyprus faced difficulty establishing its Research and Innovation Centre¹⁵ despite commitment from European companies to invest because of the legal framework governing public universities and the commercialisation of intellectual property.

Establishing a research culture includes working with industry to improve demand for these advanced level skills and identifying clearer career paths as well as improving the profile of research in Cyprus. One roundtable participant noted that much of industry does not even consider that they could commission or sponsor projects or provide seedcore funding. Wider engagement with the public about research was also identified as important in this regard. UK initiatives to incentivise collaboration between industry and HE (e.g. Higher Education Innovation Funding¹⁶) were noted as possible models to use. Examples within Cyprus included the Cyprus Employers' and Industrialist Federation's innovation awards and the Cyprus Innovation Society, established in 2010 as a forum for policy discussion and promoting innovation in enterprise.

The private sector universities also emphasised the importance of developing Cyprus's research capability noting that they had only recently started PhD programmes and were limited in their ability to access research funding from the state. While research is 'at the heart' of what they do, the private sector universities emphasised that their focus is mainly on teaching as this is how they generate the majority of their revenue. At the roundtable, one private sector university noted that the bureaucracy of funding, including delays in payment also act as a disincentive for taking part in and leading research projects. However, the private universities are developing research capability particularly in applied sciences and do host a small number of postdocs funded by RPF. For example, the Frederick Research Center was established in 1995 and has been involved in 50 externally funded research projects since its inception with a notable focus on energy and environmental sustainability.¹⁷

¹⁵ <u>http://www.cyric.eu/about-us/cyric.html</u>

¹⁶ http://www.hefce.ac.uk/kess/heif/

¹⁷ http://www.frederick.ac.cy/the-frederick-research-center

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The current economic situation is not favourable and means that Cyprus needs strong leadership to show the way and create the vision and enthusiasm for this objective but that close ties with the academic community in the United Kingdom through visiting appointments and expats were helpful. Cyprus's location relative to Europe was also noted as an obstacle. However, there is recognition that this is a long-term goal and the sector must be realistic given its relative youth compared to its European comparators.

The low level of research intensity in Cyprus means that ECRs face difficulty in finding suitable employment following funded fellowships and fixed-term engagements. The market for individuals with these specialist skills is small and yet there has been expansion in the number of PhDs in Cyprus and so competition is high. As a consequence there has been a conscious shift in focus (and funding) from the RPF away from the PENEK programme towards DIDAKTOR to provide more opportunities at the postdoc stage where there is noticeable unemployment. However, RPF has been limited in its ability to fund these positions given the economic crisis.

The lack of demand from public and private sector employers means that highly-skilled individuals with PhDs are leaving Cyprus to pursue careers elsewhere in Europe and in the US. However, as HE has developed over the past twenty years in Cyprus there have been some successes in bringing back established academics to Cyprus such as Nobel Prize winner Professor Sir Christopher Pissarides and the public universities continue to be active in seeking to repatriate top Cypriot academics via Marie Curie Career Integration Grants.

ECRs were described as a vulnerable group with limited experience and networks. It is difficult for them to gain access to the research system without having established links within the sector and internationally and this makes it difficult for them to be involved in large projects. At the roundtable it was noted that lack of industry experience limits the ability of ECRs to easily access jobs outside of HE and that employment skills should be introduced as early as the undergraduate stage but also right through to PhD and postdoc stages. ECRs have significant development needs and need to develop a portfolio of skills to ensure employability. The RPF emphasised the importance of opportunities to participate in dissemination and outreach.

It was acknowledged by interviewees that balancing personal and professional needs can be hard for ECRs as the early stages of the career are demanding while a portfolio of work is being built. The fixed-term nature of the employment also means that promising researchers can leave to begin alternative non-research careers with greater stability and job security. One private sector university noted that fixed-term contracts could be problematic as job security is limited and there is a lack of a specified career path. This was particularly a concern for senior researchers who are on grants but may face difficulties in continuing activity at that level of seniority once the grant concludes.

Participants in the roundtable understood that the challenges relating to research careers and the progression beyond postdoc stage where similar across Europe and the rest of the world but that it is exacerbated in Cyprus due to its location, research culture and economic situation. It was noted that in the UK researchers might move between postdoc opportunities but that there is not the scale in Cyprus and therefore the only option is to move abroad.

8 Gender equality

Cyprus has been involved in a number of European initiatives that have addressed women's research careers including the Helsinki group for women in science which was established in 1999.¹⁸

According to the RPF, which measures basic indicators such as the ratio of male to female researchers, more than 50 per cent of fellows are women. While there is good representation among young researchers there is a problem with coordination and networking – there are almost no female research coordinators. The challenges were noted to be similar to those in other countries such as disciplinary differences (e.g. dominance of men in engineering versus concentration of women in some areas such as nursing) and career progression /'vertical segregation' as shown in Table 2. There are currently no specific programmes targeted at female research careers but there are flexible working policies to promote and enable work-life balance.

Position	PUBLIC Number of Male / Female		PRIVATE Number of Male / Female	
	М	F	Μ	F
Rector	2	1	5	0
Vice Rector	5	1	10	0
Professor	93	10	31	15
Associate Professor	76	32	62	20
Assistant Professor	88	44	85	55
Lecturer	109	74	65	55

Table 1: Gender balance in public and private universities 2011

Source: Ministry of Education and Culture.

At the public universities there is flexibility for female researchers who go on maternity leave during funded projects. The terms stipulate that the project is halted until the researcher returns. At the private universities we heard that there was no systematic monitoring or evaluation and the legal minimums were standard for maternity although this could be dependent on the funding agency.

9 Mobility

Cyprus has historical links with the UK and close links with the Greece which along with the US are the primary destinations for outward mobility. Interviewees emphasised the importance of retaining these links as they ensure close ties with developed HE systems, allow excellent career development opportunities for researchers, and develop international networks that benefit Cyprus's research and innovation system. Cyprus receives an increasing number of students from China and the Indian subcontinent, but the number of international research fellows was currently limited. The imbalance between researcher inflows and outflows was commented on by several interviewees who felt that

¹⁸ http://cordis.europa.eu/improving/women/helsinki.htm

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the balance was currently disadvantageous to Cyprus and that 'brain drain' was a concern and could become worse given the current economic situation. Cypriot universities have been proactive in their response to these concerns through active recruitment of expatriates while the RPF is in the process of creating an expatriate researcher database which will be used to raise the profile of research and innovation activities in Cyprus as well as funding and collaborative opportunities.¹⁹

The RPF has been the 'bridgehead organisation' and mobility centre for Cyprus since 2004 and hosts the only EURAXESS service centre as well as its web portal.²⁰ In line with typical EURAXESS portals, the web portal provides a range of information for researchers looking to base themselves in Cyprus including accommodation, childcare, taxation and healthcare. During its previous research framework (2008-2010) the RPF ran a 'hosting of researchers based abroad programme', which aimed at hosting distinguished researchers from abroad to transfer knowledge into the local research system, as well as a 'recruitment of young researchers from abroad'.

Cyprus took part in the E-CARE survey on researcher mobility which ran from late 2008 to 2009 and found that 9 per cent of Cypriot respondents had stayed abroad at least once for research mobility of 6 to 12 months while 4 per cent stayed for mobility longer than 2 years.²¹ The survey found that future career development, reputation of the host institution and interesting research were the prime motivating factors for international mobility for Cypriot respondents to the survey. The most common barrier to mobility was cited as difficulties in accessing research funding while an under-developed mobility policy and low political support were also cited as issues.

Cyprus has worked to overcome barriers to the admission and residence of researchers which were a cause of mobility difficulties. The Scientific Visa Directive was transposed into Cypriot legislation via the Aliens and Immigration (Amending) Law of 2008 with the RPF designated as the responsible authority for the approval of host organisations for third country researchers.²²

Pension schemes were mentioned as an issue by interviewees for mobility as well as in their own right. The public sector is covered by a relatively generous mandatory scheme but this is available to those at lecturer stage and above – once tenureship is acquired service is calculated retrospectively.

The lack of research investment and infrastructure in the private sector means that inter-sectoral mobility is limited and interviewees voiced concern about the lack of opportunities for employment beyond the postdoc stage.

10 Supporting early career researchers

Despite its young HE sector, Cyprus provides excellent opportunities for researchers at the early stages of their career through fellowships offered by the RPF and funded postdoc positions within public and private universities. In a short period of time Cypriot universities have established world class research centres that are internationally networked as evidenced by its high rate of international co-publication and 101 European-funded programmes which generated €10,285,947 in 2013.²³ The

²⁰ www.euraxess.org.cy

¹⁹ <u>http://www.mfa.gov.cy/mfa/mfa2006.nsf/All/17B800D62B6B202FC22571A90021573A?OpenDocument</u>

²¹ http://cordis.europa.eu/result/rcn/55279 en.html

²² Ibid.

²³ <u>https://www.ucy.ac.cy/research/en/research-funding-schemes/external-funding</u>

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hydrocarbon discovery provides a basis for future development alongside the country's existing expertise in areas such as agriculture, nanotechnology and molecular biology providing an attractive array of fields for emerging researchers. The economic downturn has affected the funding of early career research positions but Cyprus remains active in accessing European funding to complement investments from the state. Cyprus became an associate member of the European Organisation for Nuclear Research (CERN) in 2012 providing further high-level research opportunities for Cypriot researchers.

While there is an increasingly wide range of opportunities on offer for research in Cyprus, this report has identified several challenges many of which are not limited to the management of research careers. The E*CARE survey provided some similar findings, showing that the two main areas that needed to be improved to make scientific research careers more attractive in Cyprus were research funding and research infrastructure - Figure 1. The level of business investment in R&D is also problematic for achieving an active innovation system that supports sustainable research careers.

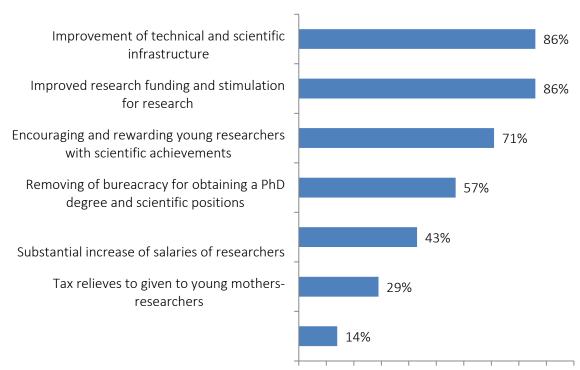


Figure 1: How can young people be attracted to take up a scientific career in Cyprus?

0% 10% 20% 30% 40% 50% 60% 70% 80% 90%100%

Source: SU-NIS

While these challenges are major, interviewees identified several areas where support for ECRs could be improved as well as identifying existing approaches.

Improving **transferable non-research skills** were felt to be important for career development and employability. Graduate schools, such as the one at the University of Cyprus, promote development of transferable skills and interdisciplinary training but this is not routinely extended to those in postdoc positions.

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Teaching opportunities were identified as an important area of development and it was positively noted that there had been a change in regulation to involve PhD candidates in at least one course to develop additional skills such as teaching and presentation. Previously activities beyond research had been restricted and thus this change was welcomed.

The Cyprus University of Technology (CUT) felt that **entrepreneurial skills** were important in Cyprus, particularly as there is limited demand in the labour market for PhDs as employees. This was echoed in the roundtable where participants noted the lack of an innovation or entrepreneurial culture and young people need to see themselves not just as potential employees but potential employers – not waiting for the state to provide employment. Universities in Cyprus were aware of models that could be adopted in some form in Cyprus, particularly those in the UK such as the Higher Education Innovation Fund (HEIF)²⁴ which began in 2001. The HEIF supports a broad range of 'knowledge-based interactions' between universities and industry and have been used to fund enterprise fellowships, secondments to industry and proof of concept studies. For example, Oxford University's Knowledge Exchange Fellowships support short-term fellowships for humanities scholars including early career researchers affiliated to the university.²⁵

Interviewees identified a range of areas in which support could be improved or introduced. **Support for obtaining research grants** is important and the EURAXESS portal operated by the RPF²⁶ is a primary source of support for European grants. However, according to the MORE2 study, EURAXESS has relatively low visibility among researchers and the E*CARE survey suggested around 1 in 5 in Cyprus were aware of it in 2008 so it is important that this portal is visible across all the universities.

Work needs to be done to **understand how research careers work** in Cyprus and what PhDs are doing beyond higher education. There is a lack of information on career trajectories for ECRs and this needs to be strengthened to improve researcher retention and avoid severe brain drain.

Mobility grants were also seen as helpful in improving ECR networks which are often under-developed and important for increasing funding and employment opportunities. The University of Cyprus internally funds academic staff to participate in scientific conferences and the dissemination of research and spent over €1 million in supporting networking and collaborations in 2013. The RPF is now allowing up to four organisations in projects to improve collaboration and organisations from abroad can get up to 30 per cent of research funding.

Developing independence was also identified as an important part of career development. RPF's next framework period offer leadership opportunities to up-and-coming researchers to establish their own team and establish research infrastructure. So far nine projects have been funded and three of these are led by less-experienced researchers. Similarly, the University of Cyprus introduced 'start-up' funding in 2004 which offers funding to new academic staff to assist with developing infrastructure (e.g. laboratory equipment) to ensure that they are competitive in attracting external research funds. In 2013, 15 awards were made totalling €342,746.

²⁴ http://www.hefce.ac.uk/whatwedo/kes/heif/

²⁵ http://www.torch.ox.ac.uk/knowledge-exchange-placement-fellowships

²⁶ http://www.euraxess.org.cy/

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Mentoring is often mentioned but it is recognised that this needs to be thought through to be effective. The use of mentors from industry was identified as one way to improve the employability of ECRs outside of HE.

Collaboration between universities and with industry was regularly mentioned as a way to increase opportunities for postdoc work similar and the CASE studentship from the UK was mentioned as a potential model.²⁷ These are focused at PhD level and are situated in a collaborative partnership between a university and partners in the public, private or voluntary sector. Approaches such as this provide access to alternative working environments, expertise and facilities.

Increasing the demand for higher-level skills in industry was identified as an important action and that this needed to be targeted at both the public and the private sector.

Increasing the profile of research and its benefits in Cyprus to improve the public's understanding of the role that it plays in the Cypriot economy and increase the esteem in which careers in research are held.

One of the private universities noted that it uses a **workload management system** which is based on a model used in the UK. This tracks and limits teaching activity for all staff including postdocs to ensure that research time is ring-fenced and to identify work overload issues. There are special provisions within the model for ECRs.

²⁷ http://www.nerc.ac.uk/funding/available/postgrad/focused/industrial-case/