



EURAXESS TOP III – Task 3.1

Report on Career Development Services and Centres in The EURAXESS Network

EURAXESS TOPIII

Making European research careers more attractive by developing new services and enhancing the current services of the EURAXESS network

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Report on Career Development Services and Centres in The EURAXESS Network

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The document was prepared in the framework of the EURAXESS TOPIII project (Gr. No:665934), funded by the EC under the Horizon 2020 programme.

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Executive Summary

The aim of Task 3.1 was to compare the existing demand for “Career Development Centres” (CDCs) aimed at supporting researchers in their professional development, with the capacity of EURAXESS Network, in order to produce a set of Recommendations on how to set up the CDCs services. The activities foreseen included: 1. An analysis of the existing career services for early stage researchers in the EURAXESS network; 2. Interviews with different stakeholders, carried out in the five countries participating in Task 3.1; 3. A Focus Group made up of Task members; 4. The analysis of national circumstances and links with other services at country level. The survey was conducted in November 2015, and was meant as a “consultation exercise” among EURAXESS members, in order to gain the Network’s perspective on the subject. The respondents were 120 (20 Bridgehead Organisations; 57 Local Contact Points; 43 Service Centres), which represent nearly 50% the capacity of the Network. The survey carried out among EURAXESS Network members showed that a consistent number of respondent institutions provide (directly or indirectly) services in the area of career development: 47% of centres declared they already provide the services; 22% of centres declared that other units at their institution provide the service, while 8% of centres declared they would like to set up the activity in the near future. However, different levels of targeted services are provided. The majority of respondents (60%) in the EURAXESS Network rated 4 (very important) or 5 (essential) the importance of the services, i.e. assigned a high value to this kind of services. The main activities are in the areas of mentoring, counselling and training (soft skills), while activities involving directly industry are more «limited». Although the majority of respondent organisations provide the services, a very low number seem to have knowledge of policies/ sources of information (data) at national, regional or local level regarding employability of researchers. According to the answers, there is a high variety of models and patterns in the way the services supporting the professional development of researchers are organized. In some cases the service is not provided directly as a EURAXESS activity, but the organization of workshops, training courses and mentorships for researchers are provided by the institution. Many centres also identified EURAXESS core activities (basically: providing information and assistance on mobility) as part of career development services. According to the centres, besides the typical “EURAXESS questions”, (i.e. visa, accommodation, entry conditions, sources of funding, international contacts, international opportunities, etc.), the requests from researchers concerning funding opportunities are often associated with requests concerning career advice, long term job perspectives, training on EU funds, skills training, job vacancies, application procedures for national and international positions, employment in private companies. Among the main threats identified in providing the career development services, the most important one is the lack of resources, both in terms of financial support and of staff shortage. The second threat identified concerns the competences and skills required by the staff. Concerning the concrete activities required by this kind of services, different perceptions of the services provided (and relevant quality standards) coexist: while some respondents think that career development services are an entirely different service from the EURAXESS one, others think they are already providing the service through EURAXESS. This suggests that it will be necessary to reflect on how much “elaborated” and “sophisticated” the services should be and to what extent the services should provide assistance to researchers. Possible approaches are suggested in the final Recommendations.

Two additional evidences are worth mentioning, that emerged from interviews: for researchers, a general lack of information on “career destinations” and a lack of awareness also of their own skills, of their own career development and of the market demands. On the other hand, the interviewees from the private sector clearly expressed their belief that researchers from academia have very little knowledge about the private context and its functioning. On the basis of these findings and of the detailed information provided at country level, a set of final Recommendations has been identified for the setting up of Career Development Services.

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The Survey

In order to investigate the existence of services aimed at supporting the employability and the careers of researchers in the EURAXESS Network, CRUI Foundation, in accordance with the task 3.1 of the TOPIII project, has developed a questionnaire aimed at investigating to what extent the EURAXESS members had developed or are planning to develop such services, thus complementing the core EURAXESS focus on mobility of researchers.

In November 2015 the questionnaire, integrated with suggestions from other beneficiaries of Task 3.1, was submitted electronically to all the institutions involved in the survey.

The recipients of the questionnaire (all EURAXESS members) were identified through the use of unique email addresses included in the EURAXESS network's extranet.

The questionnaire was sent to a total of 493 institutions, but only for 239 email addresses a correct delivery of the link to the questionnaire was confirmed.¹ This probably was due to a lack of updating of staff contact details in the Extranet. The institutions that have actually participated in the survey by filling in the questionnaire are 120 and are distributed in 33 countries. Therefore, considering the number of institutions that surely received the questionnaire, the degree of coverage would be approximately 50%.

The Tables below (Tables 1 and 2; Chart 1) show the whole coverage in terms of role of the respondents in the EURAXESS Network (BHO, i.e. Bridgehead Organisation; Service Centre; Local Contact Point) and countries involved.

Tab 1. The participation in the survey

A - number of recipients	439
B - number of recipients certainly contacted	239
C - number of questionnaires filled in	120
D- Coverage	50%

Tab 2. Composition of participants in the survey by type of institution

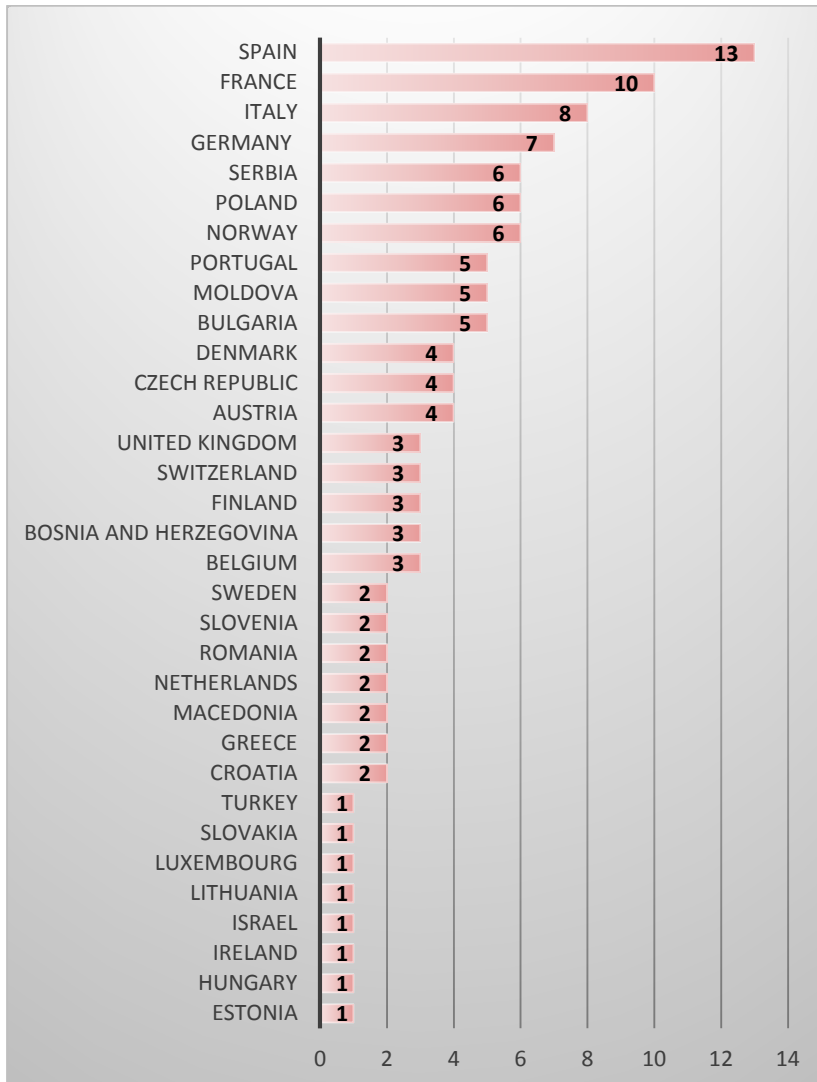
Type of institution	Number	%
BHO (Bridgehead Organisations)	20	16.7
Local Contact Points	57	47.5
Service Centres	43	35.8
TOTAL	120	100

¹ Please note that the information provided by the European Commission in the EURAXESS brochures and documents reports "More than 260 centres in 40 European countries".

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Chart 1. Number of participating institutions by country



In the next paragraphs the main findings of the investigation are presented following the order of the subjects tackled by the questionnaire.

The services to support researchers' careers in the EURAXESS centres

The institutions of the EURAXESS network may be divided in two distinct blocks, if observed in terms of the actual supply of services aimed at the development of researchers' career. There is in fact, in the light of the data collected, a slight majority of centres (53%) that is not engaged in providing such services to researchers, while a 47% of them declare their engagement.

However, this picture can be further elaborated (see Chart 2) taking into account the fact that the 53% who gave a negative response consists, on the one hand, of "inactive" centres in terms of services for researchers' careers, but they are part of a larger institution where other units deal with such services (22%). On the other

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hand, it consists of institutions which, although currently not operating in this sector, have planned to undertake this activity in the near future (8%). In the light of these considerations, the totality of institutions which, in a strict sense, answered "no" amounts to a 23% of the 120 institutions surveyed (chart 3).

Chart 2. Does your EURAXESS centre provide support or advice on career development for researchers?

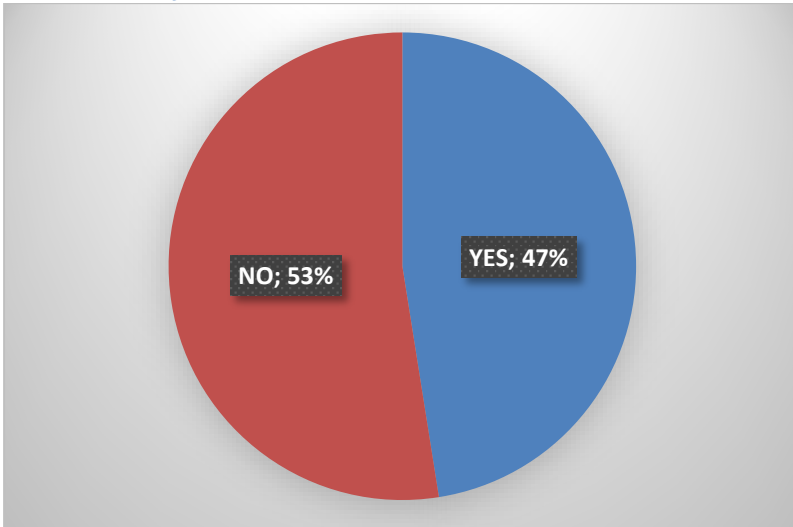
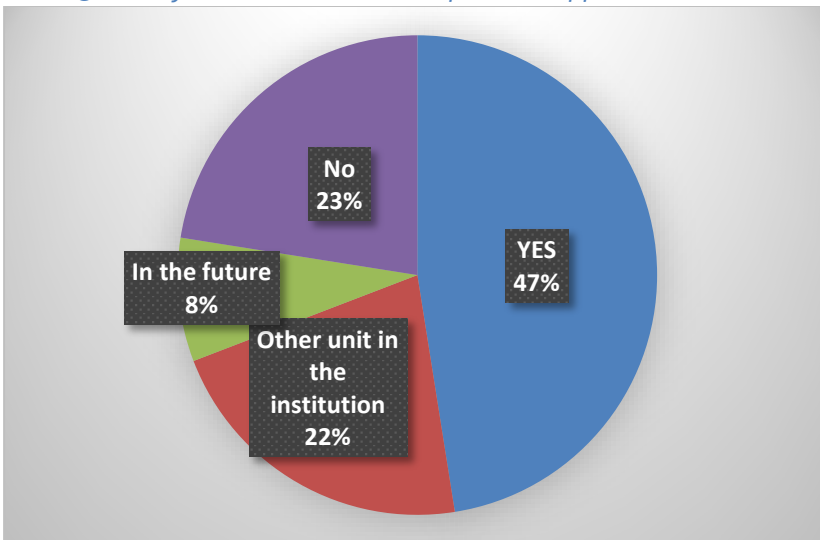


Chart 3. Does your EURAXESS centre provide support or advice on career development for researchers?

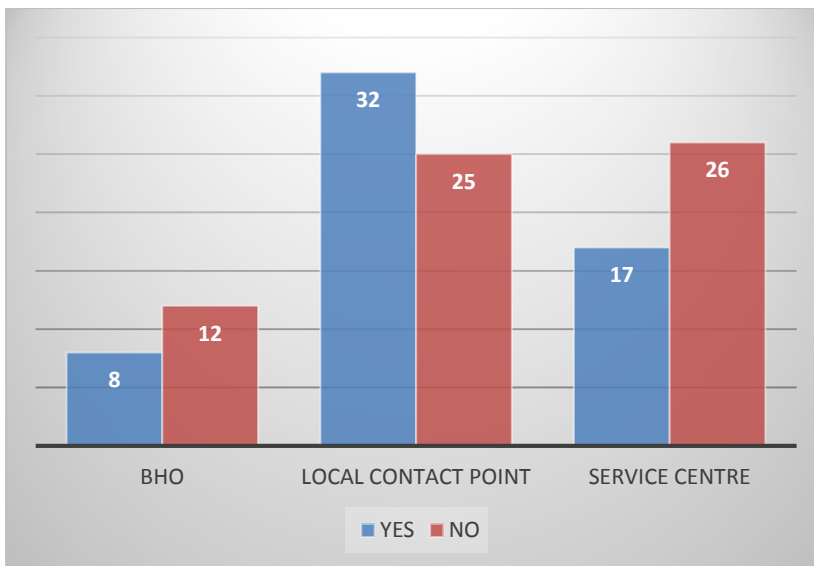


The phenomenon differs further if observed on the basis of the three profiles of the institutions investigated (chart 4). While, on the one hand, BHOs and Service Centres are characterized by a prevalence of organizations not interested in supporting the employability of researchers, Local Contact Points, on the other hand, show a higher inclination to take over this task.

Chart 4. Does your EURAXESS centre provide support or advice on career development for researchers?

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The type of services provided and the tools used

The services offered are available in a range of activities, as shown in chart 5. Although the number of institutions that responded to the specific question is quite low (roughly: one third), it can be observed that the most frequent services have to do with the transferring of skills (mentoring, counselling, training) while activities envisaging an actual involvement of companies appear less frequent.

*Chart 5. What kind of services do you provide?
(number of institutions)*

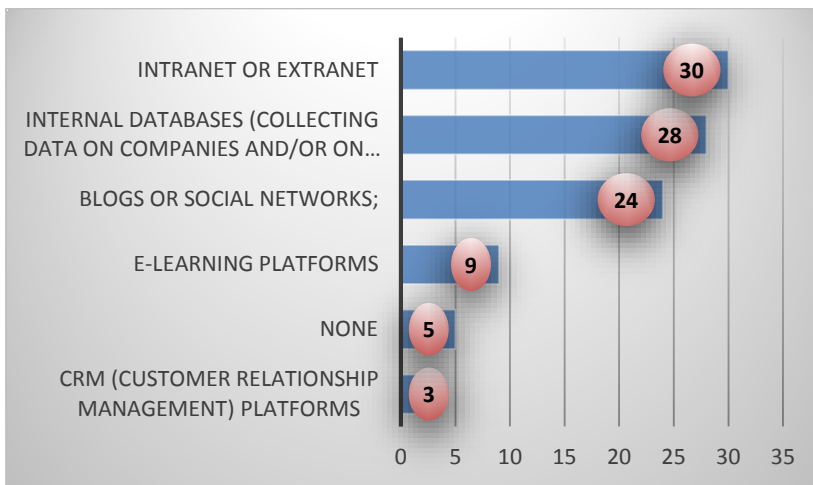


The few cases (35%) where the institutions have provided an answer about the most used instruments to support research careers show how the resources more frequently adopted are the Intranet and Extranet or other databases owned by the institutions. Only in a very limited number of cases there is a use of more advanced information technology tools and platforms of various types, as shown in chart 6.

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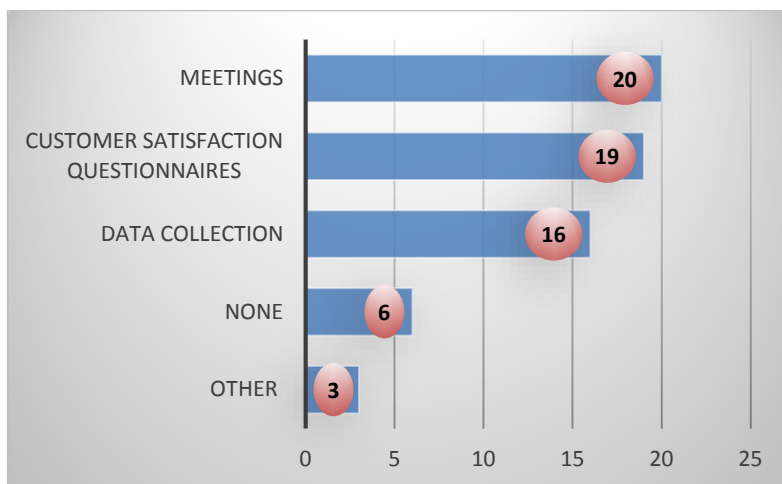
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*Chart 6. Which tools (if any) do you use in order to better manage the activities?
(number of institutions)*



There are cases in which these activities are monitored by the institutions (mainly by organizing meetings or by submitting questionnaires to users). However, the low number of responses from the survey in connection with this question may be considered the most significant aspect, as it might suggest that roughly one third of respondent institutions provide a structured approach to the services and have therefore a clear view on how to support employability of researchers.

Chart 7. Which feedback tool concerning the services provided and their impact do you use (if any)?



Knowledge and interaction with policies of the local context

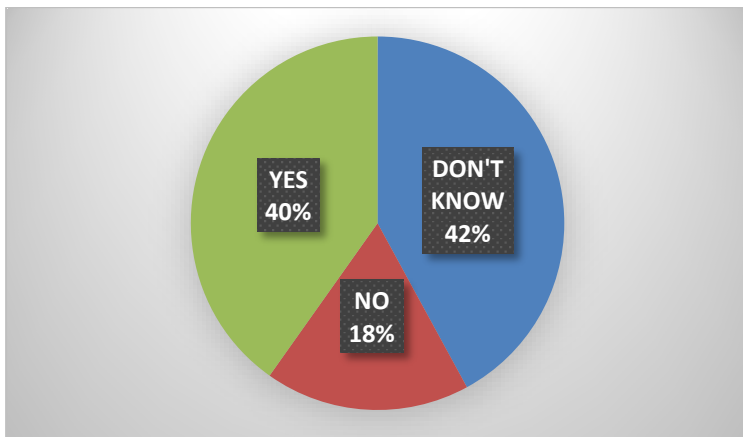
The same key can be adopted to read the 3 following charts that – with the aim to inquire about the availability of statistics on the phenomenon of employment of researchers and policy actions to support

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them – provide a picture where EURAXESS centres seem, for a significant portion, unaware of what their local or national contexts have made on the subject.

Chart 8. To your knowledge, is there any source of information (regular surveys, databases, etc.) at local, regional or national level, providing data on employment of researchers/highly skilled personnel or industry and private sector needs as far as competencies of highly skilled people are concerned?



In particular, the high percentage of respondents that declare to be uncertain about this topic clearly highlights a lack of knowledge – and a low level of interest – toward the aspects taken into consideration. The figures are as follows: 42% of the organizations' respondents in connection with the question concerning the availability of statistics on the employment of researchers (chart 8); 49% with reference to the existence of organizations which act in support of the research careers in national or regional scope (chart 9); the figure on uncertain respondents rises to 52% when it comes to the knowledge of specific policies in their country (local or national level) supporting the employment of researchers (chart 10).

Chart 9. To your knowledge, is there any organization (private or public), at local, regional or national level, providing career development services for researchers (mainly R1 and R2 according to the "European Framework for Research Careers")?

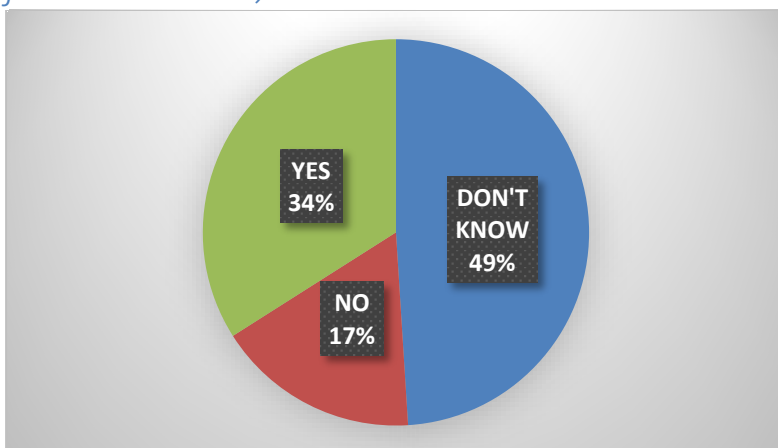
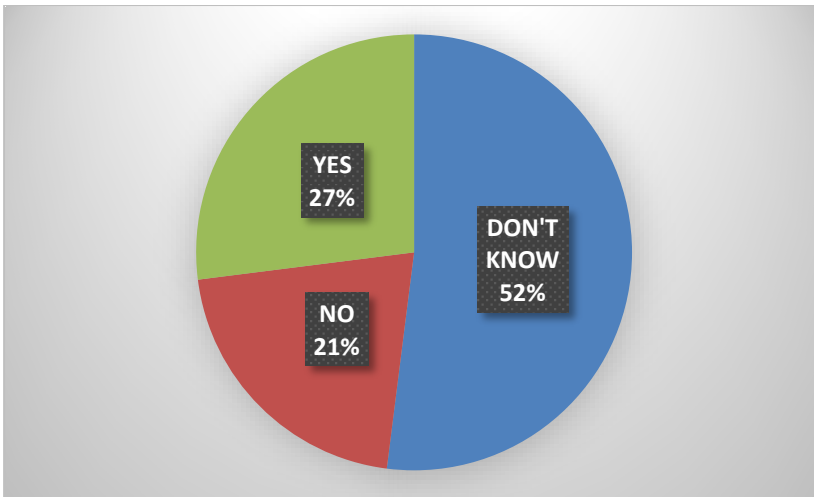


Chart 10. Is there, to your knowledge, any national or local/regional policy supporting the employment of researchers (mainly R1 and R2) outside academia?



It is useful to notice that, on the other hand, the institutions which responded in a positive way have provided a significant amount of web references that will be investigated further in order to collect valuable information to document more thoroughly the existing policies.

The importance of supporting researchers' careers in the opinion of the EURAXESS centres

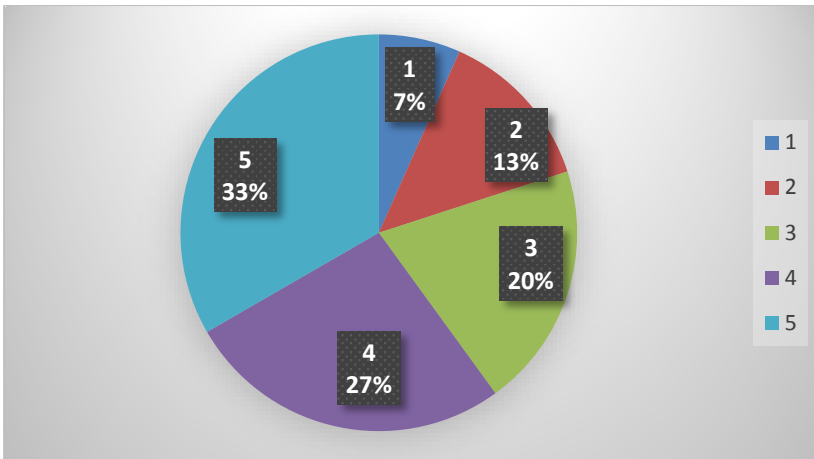
Institutions that received the questionnaire were asked to provide – on a scale of 1 to 5 – an estimate about the importance that they attach to their role in supporting researchers' employability. The average of the values expressed corresponds to 3.7. The answers are concentrated more frequently (33%) at the highest level of interest (chart 11). Taken together, the two highest degrees of importance assigned to these types of services (level 4 and 5) show that the majority (60%) of the EURAXESS centres give a high value to the activities designed to develop researchers' careers. This result, when compared to the less encouraging percentages of respondents on tools and activities actually delivered, could suggest that, despite a significant interest in delivering the services which are the subject of this inquiry, a relevant part of institutions of the EURAXESS network suffer difficulties (whether structural or financial) that limit their effective involvement in these activities.

In any case it should be noted that a 20% of responding institutions assign little or no importance at all to the type of services concerned.

Chart 11. Please rate the importance, in your views, of career development services targeting researchers for the EURAXESS centres (1 Not important at all – 5 Essential)

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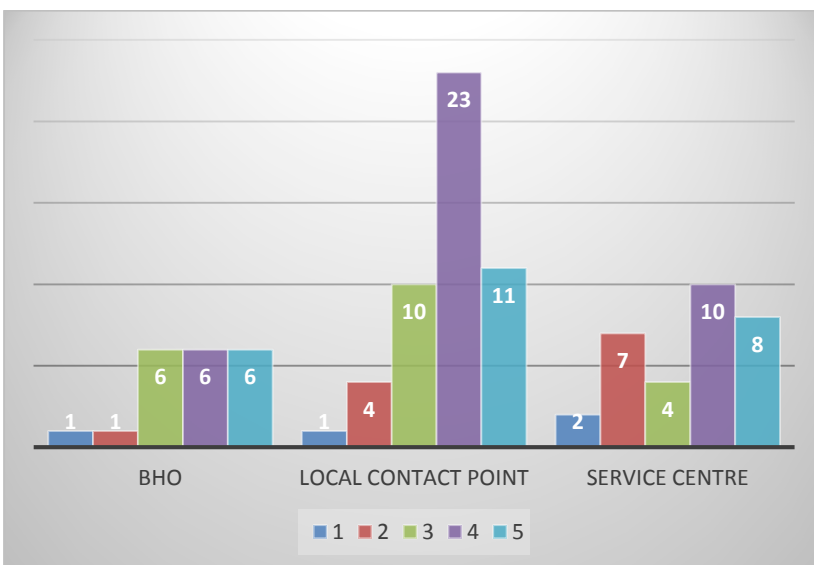
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As already noted in Chart 4, also with regard to this question the results collected express different orientations, depending on the role of the institutions in the EURAXESS network.

The Local contact points are most open to a broadening of the objectives of the EURAXESS network by including among their activities services that facilitate researchers to enhance their career prospects. Service Centres and BHOs, which also largely support this view, nevertheless express opinions slightly less clear than LCP (chart 12).

Chart 12. Please rate the importance, in your views, of career development services targeting researchers for the EURAXESS centres (1 Not important at all – 5 Essential)



Open-ended questions

The following sections report on the contents of questions in which respondents were requested to describe the state of the services from the organizational point of view, or to report about challenges or threats affecting the delivery of services. The answers are grouped in four main items. The highest number of answers was registered for the sections “threats and challenges” and “skills and competences” needed by the staff.

How the whole service is organized

There is a high variety of models and patterns in the organization of the services supporting the professional development of researchers. Moreover, many centres described in this specific section the EURAXESS core activities (basically: providing information and assistance on mobility). It is not clear whether they think that this is the type of service that should be identified as “career development” or if they think that mobility is part of career development for a researchers, and therefore part of the career development services. At this stage we can only report on information that have been included by respondents. Additional comments are included in the section “Challenges and Threats”. In some cases the service is not provided directly as a EURAXESS activity but the organization of workshops, training courses and mentorships are provided by the institution: therefore EURAXESS service centres do refer to other services as far as career development “area” in general is concerned. In many cases another unit is responsible for the career development services (some examples: Human Resources Unit; Career Development Service; Scientific Departments).

The staff issue is a crucial one, particularly hard to categorize: the number of staff involved ranges from “one, without salary” to “ten involved in EURAXESS and financed by the national budget”, with possibility to expand through other external sources (i.e. TOPIII or similar projects). In between there is a wide range of possibilities, including the hiring of one or more consultants for the aspects directly linked to career development.

Services researchers ask most frequently for

This section provides an insight on researchers’ need, but it is quite clear from answers that the requests of support are strictly linked to the services offered: in many cases, in fact, a sample of typical “EURAXESS questions” is provided (i.e. visa, accommodation, entry conditions, sources of funding, international contacts, international opportunities, etc.). Requests concerning “Funding opportunities”, however, are often associated with requests concerning career advice, long term job perspectives, training on EU funds, skills training, job vacancies, application procedures for national and international positions, employment in private companies. The possibility to enhance EURAXESS members’ capabilities to extend their area of expertise on these topics – also by a more focused collaboration with other units at their institutions – should therefore be explored.

Responsibility in order to decide to create and/or support this kind of services

A large majority of respondents state that this kind of responsibility lies mostly in the institution’s top management. This means that in the development of this kind of services a particular attention should be paid to the messages that will be sent to the EURAXESS community. It would be helpful to make available some evidences on opportunities offered and on strategic relevance of the career development services addressed to researchers, for potentially interested organizations in the EURAXESS Network.

Challenges / threats and skills/competences needed

This questions received the highest number of answers, as a proof of the fact that the questionnaire was perceived as a way to collect opinions on the further development of the EURAXESS Network, more than an exercise aimed at merely investigating on “the state of the art”. The main threat that was mentioned in

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establishing the career development assistance for researchers is the lack of resources, both in terms of financial support and of staff shortage. A second threat concerns the competences and skills required: a concern that has been expressed many times is that a proper career development centre for researchers needs experts in the field and not re-trained "experts". Some respondents think that career development services are an entirely different service, which would need full-time attention and permanent update on careers on a regional, national and international level. Therefore, in future developments, it should be clarified to what extent the services should provide assistance to researchers: in fact different perceptions of the level of services provided coexist in the answers, and it will be necessary to reflect on how much "elaborated" and "sophisticated" the services should be. It is worth mentioning that in a certain number of cases interpersonal skills are mentioned (i.e.: ability to motivate people, the capacity to empathize with a person, to have a non-judgement ethical approach, some coaching expertise), combined with more technical skills, like knowledge of interview techniques, knowledge about national and international research sector, knowledge about current and future job market trends.

Some respondents however think they are already providing the service (or part of it) through EURAXESS, while another group –as already pointed out - think that they would need to assist individually (as EURAXESS does in many cases) researchers, and that it will be complicated to gain the necessary level of skills required. The area of development lies therefore between those two approaches, but it should be clarified what kind of services (in terms of contents/results) should be put in place.

Given the fact that setting up this kind of services would mean to expand the scope of EURAXESS activities, a concern that some respondents have expressed is the risk of overlapping with other (structured) services at the institution.

The support from senior researchers and the expectations of younger researchers are also cited as a possible source of uncertainty. The two target public are perceived as highly demanding: however, while senior researchers' support is needed in order to legitimate somehow the services, and eventually contribute to them, the expectations of younger researchers have to do with the range of activities that can be put in place and therefore "what" can be offered to users. The country interviews have clearly identified the challenges underlying the management of researchers' expectations concerning the service. It must not be underestimated the fact that career services may also benefit from "internal partnerships" with senior researchers, in order to better tailor the service and integrate it with a part of competences on discipline-based job market trends, an area that would be difficult to explore for EURAXESS centres - or any other career service run by administrative staff.

Finally, in countries which face high unemployment rates or experiment brain drain phenomena, a "cultural" challenge is also mentioned: the support to researchers concerning their professional development might be negatively affected by an unfavorable context.

Interviews on Career Development Services

In order to gain an overview of national contexts and main stakeholders' perspectives, in the countries of WP beneficiaries, on setting up a set of career development services for early stage researchers, all beneficiaries in Task 3.1 carried out interviews with different stakeholders. All interviews include representatives from academia; in some cases also representatives from industry, career development experts and local /national policy stakeholders have been contacted.

Although there are specificities in each of the countries involved, from the interviews it emerges that many common aspects characterize the Career Development Services. Below, the Summary sheets of each country and the main issues emerged.

IRELAND

1. Interviewees Profile

Academia

- Irish Postgraduate Researcher (Ph.D.; final year Biotechnology) at Dublin City University in Ireland, with research work experience in Biomedical Diagnostics Institute (male)
- (Israeli)Postgraduate Researcher; Ph.D. student of Medicine, at Trinity College Dublin, National Children's Research Centre of Crumlin Hospital. Previously working in food industry in Israel (female)
- Research Careers Advisor (UCD)
- Staff Welfare Development Manager (UCC) plus Leadership development Ambassador (UK)

Private sector

- Research Project Manager

2. Researcher Career Development: point of views

Each interviewee agreed that career development services are important and should be available in each of the HE institutions.

There is also a need to collaborate with national stakeholders, funding agencies and policy makers – this is currently happening with the Irish Universities Association (IUA) and the seven universities (which host EURAXESS Ireland).

The Private sector should play a key role - apart from the private sector interview, it was established that researchers seek support and information in this area.

Work in partnership and collaborate with the many research support facilities available:

- Complementarity of provision between HR, Dean of Grads, Career Services offering courses on CV Preparation, use of social media to look for jobs, interview skills.
- Provision of services for PhD students should be separate from Post Docs - inappropriate to put them together.
- Sell it at senior level - reason is to increase the skills and employability of Researchers thus benefiting the economy and contributing to the research output of the university.
- Provide innovative transferable skills training and professional development support

Developing research leaders of the future!!!!

Academia

Concern was expressed that there is a lack of career services for post graduates at universities.

During the interviews, the needs of young researchers were identified:

- Researchers should be encouraged to use the job they are currently in to get the development opportunities and transferrable skills for the next job – Universities are great for that!"
- There is a need for adapting to different environments – guidance to assist with the move from academia to industry
- Good Mentoring and coaching is vital as part of the researcher’s development
- Researchers should have access to programmes that increase their personal and collective awareness of their employability (i.e. capacity to secure employment through having a range of experiences, skills and emotional intelligence - as well as career development info) and their opportunities for actively securing employment (i.e. working with potential employers/ engaging funders for relevant calls that encourage industry partnerships).
- Identifying and developing transferable skills is a very important start in preparing for future career.
- Completing a training needs analysis follows this and leads to the preparation of a Professional Development Plan (PDP).
- Regular professional training is important, but it is critical that researchers develop a career-development dialogue with PI or supervisor.
- Reviewing progress and discussing career goals is a necessary part of career development.

Private sector

Career development services, information and tools are important and necessary for the researchers. Negative view of ‘readiness’ and flexibility for business environment.

The interviewee was asked to highlight any issues experienced when selecting candidates:

- **Pure technical skills** - availability & remuneration expectations.
- **Personality and Communication Skills.** Primary concern apart from ability to do the job is their ability to communicate back to team members/ project manager and wider audience.
- **Presentation** - How they dress and how do they present themselves - dress up smart to be taken seriously. Will be representing the company.
- **Delivery** - they have to have a certain understanding that there is an expectation that they will be asked to deliver - following through on delivering the report they committed to delivering by the due date/ Ability to time manage, report/paper/ process. A sense of ownership and time management - a lack of which can only lead to pressure.
- **Main Issues** experienced when meeting candidates
 - a. At interview stage- researchers need to know how to answer interview questions and when to stop answering.
 - b. Some researchers can come across as quite arrogant.
 - c. CV's need to be tailored - look at skill sets required of the successful candidate and role holder.

3. Useful services

- Structured strategy for career advice for young researchers should be put in place;
- Professional career advice centres dedicated to post-grad students (academic and in industrial aspects) should be set up;

- Communication between post grad group and the career advice units should be reinforced;
- Post docs representatives (also foreign) should be involved in the work of the career advice centres;
- Good quality online service focusing on post grads would be a very useful thing to have;
- Useful services should include: advice on how to have an academic career as a researcher, mechanisms of research projects' funding, grant application, how to succeed as a researcher in industry, a range of workshops focusing on transferable skills (CV, interview team working, and time management). Workshops should be face to face, not online. Information about job fairs and other career events. Statements/interviews with employers about their ideal candidates, successful recruiters;
- Post Doc Development Hub
www.theuniversity.ie/en/devhub
- Personal and professional development for Postdoctoral Researchers;
- comprises a range of supports including, workshops, on-line learning, personal and professional development plans and bespoke training programmes;
- brings together the training and support available for all aspects of a postdocs' career, enabling post docs to develop transferable skills, discover new talents and expand existing ones;
- Custom designed online tool for recording development activity;
- One to one career strategising meetings using Coaching;
- Transferrable skills training;
- Funding supports for specific schemes;
- Panel discussions/ networking opportunities with industry/ alumni postdocs & relevant funders (SFI industry partnership fellowships);
- Supports for PI-Mentors;
- **However!! Private sector and in some HEI's – programmes are not tailored for researchers.**

4. *Main issues/Recommendations*

Academia

- There is a need for senior commitment for opening career advice centres for post grads
- Universities need to realise the importance of career advice centres for post grads, not only their students. Otherwise academia and local industry would lose talents due to lack of communication and structured way of introducing mechanisms of the academic/industry career for the post grads.

Private sector

- Surprised by lack of understanding from researchers that they are now working in a business and it is run completely different to an academic institution... a certain lack of "getting it" - in how they dress and present themselves - both at interview and possibly representing the company.

Gaps worth analysing

- Moving from Academia to the private sector - change in environment, Different expectations, Ownership of Time management and deadlines in particular.
- Terminology of researchers in the private sector compared to academia - Data Analyst / Senior Technical.
- Language is different!

Useful services

- Personnel/ Soft Skills: Time Management, Project Management, Interview and CV preparation

- Assistance in developing a clearly defined research path.
- COMMUNICATION – interview technique plus ability to communicate to wider audience & colleagues. Translating technical jargon!
- Taking ownership – deadlines!
- Awareness moving from academia to private sector.

ISRAEL

1. National Overview of Policies and Funding

Policies at national level

- There are not specific policies of career support for the wide public, only for specific populations as described before.
- There are support policies in order to assist specific populations (such women and minorities), but there are not existing programs for them in the area of career development.

Existing National Programs in Israel

- **The Israel Brain Gain Program** - especially for returning academics. The program has the aspect of career development in terms of assisting the Returning academics on finding new jobs and opportunities.
- **The Center for Absorption in Science** - especially for new immigrants. Assisting with jobs opportunities and financial assistance to employers.
- **Contact Center for Israeli Researchers** - specific program for helping returning scientists to find positions in Israel.
- Post-Doc program in collaboration with academia and government (**MIMSHAK** program for integrating advanced ecology researchers at government agencies).

2. Interviewees Profile

Academia

- President of academic college and former head of the Planning and Budgeting Committee of the Council for Higher Education (also a national stakeholder)
- Vice rector of university

Government

- Deputy of the Chief Scientist at Ministry of Science, Technology and Space
- Deputy of the Chief Scientist at the Ministry of Economy

Private sector

- CEO of an accelerator of academic institution (a bridge between academy and private sector)
- Vice president of hi tech company
- Head of HR of hi-tech company

3. *Researcher Career Development: point of views*

Academia

A. President of academic college and former head of the Planning and Budgeting Committee of the Council for Higher Education

Researchers career development services should be part of institutions commitments. Each institution should help his graduates to be prepared for labour market.

These services should include multidisciplinary programs within the institution and career-oriented courses within the curriculum. The process should be in both sides: academia itself and government. The government should determine a national decision about the responsibilities and the specific policies. Each academic institute should involve all the relevant key persons and decide about the services. The main decision should be Commitment for opening Interdisciplinary Center.

The main obstacles in this process are: outdated practices in government offices and universities, difficulty with modifications and innovation - "think outside the box", bureaucracy and lack of cooperation within the system (between departments, offices, etc.).

B. Vice rector of university

Researchers career development services is not a mission, but should be part of the main tools that universities provide their students/ graduates.

These services should include consulting center for graduates with Organizational psychologists, direct contact with potential employers and soft skills workshops. The process of setting up those services should start with choosing Project director and defining nature and scope of required resources and allocation of resources, location, personnel and equipment. The decision should be done by Rector/ vice rector who will recognize the importance of the services. Then the decision should be taken by the institution management: CEO and President, Vice President of Students and the Dean. The Students Union will be involved after management decision.

The main obstacles in this process are: resources, infrastructure and finding suitable personnel.

C. Researchers (most of the interviewees)

- Most of them asked for advice about their career development.
- They ask their mentors, other staff members from the institution and people from the field.
- They found the information from relevant friends in the system, people with experience in the field, internet and LinkedIn.
- They think that researchers are looking for information and specific consulting, real-world support (like mentoring) and knowledge on the issues beyond the actual research.

Government

A. Deputy of the Chief Scientist at Ministry of Science, Technology and Space

Career development for researchers is a national interest. Now it depends on "offer and demand" and it's should be part of governmental decision. After the decision, governmental process should be continued within the academia.

Researchers career development services should be part of institutions commitments. The university will earn its positioning as reputation and contributing to the Community.

In the national level, encouraging trainings for career developments, secondments and industry internships are part of the policies on career development and employability of researchers and should

be more wide and developed.

At institute level, these services should include: information about academia and private sector, enrichment courses and personal advice. The university should appoint an external expert consultant in order to accelerate the process. The main obstacles in this process are the need of cooperation of many sectors (academia, industry, public bodies) and the old method of "Bring a Friend".

B. Deputy of the Chief Scientist at the Ministry of Economy

There are national programs (which were described in the beginning of the summary) and these programs are part of the policy. We don't have specific policies of career support for the wide audience. We work only with specific populations. There are support policies in order to help specific populations (such women and minorities), but we don't have existing programs for them in this area.

In the institute level, researchers career development services should be part of institutions commitments. these services should focus on the connection with private sector and should include: industry-oriented training (relevant and practical content), direct contact and knowledge about the private sector and short internships in industry.

In the national level, the main decisions should be reinforcing communication between universities and private sector and development of Industrial Doctorate programs.

Universities and the private sector do not speak the same "language". They have different working methods and norms and universities have an interest in keeping the "ivory tower" and the exclusivity of granting advanced degrees. Therefore, there are strong obstacles in this process.

Private sector

A. CEO of an accelerator of academic institution

Researchers career development services should be part of institutions commitments. PhD graduates don't study any practical knowledge about industry. The institute should help them to acquire practical skills.

The main decisions should be: Creating a dialogue with industry - key people in the industry and academia who understand the problem should facilitate cooperation, promoting practical projects including interaction with industry and private sector. These services should focus on trainings of teamwork and leadership skills and systemic approach trainings. The main obstacle is lack of cooperation between academia and industry.

B. Vice president of hi-tech company

Researchers career development services should be part of institutions commitments. Universities should create the initial network for their graduates, through their alumni, professors etc. The process should start with better defining users' needs and real-world expectations. Technological work comes later.

These services should include technological tool of database that has the option to search more narrowly within specific fields, not only on actual openings, open jobs or offers, but more widely on which companies may fit me as a researcher (even if they do not have today a specific opening< I will offer myself to them!). Universities should assign it as formal function of the university. Hire some experienced head hunters to run it.

The strongest obstacle in this process: universities are theoretical worlds, distanced from the realities of the private sector, especially in high tech. They need to overcome that barrier.

C. Head of HR of hi-tech company

Researchers career development services should not be part of institutions commitments. Universities

are slow in their decision making and they are cumbersome institutions which will not do a good job of it. They need to provide the students with adequate 'real world' knowledge about their prospective future work field. They need to provide the tools, but not the service.

The most efficient resource in this field is LinkedIn. In addition to it, smaller, specialized social networks which are directed towards specific fields (with a narrower focus). Fairs and similar face-to-face events are not very useful. Today everything flows through the internet. Personal connections need to be developed through internet tools.

4. *Useful services*

- Consulting and advise center for graduates:
personal advisors, contact with employers, Information about private sector
- Soft skills workshops and trainings during studies:
teamwork and leadership skills, Industry-oriented training
- Enrichment courses during studies:
relevant knowledge and information about private sector
- Short internships in industry
- Using technological tools and software:
database and search engine where you can find information about labor markets, employers and open positions.

Moreover- a tool which enable to find companies that may fit to the researcher (even if they do not have today a specific position, the researcher offer herself/ himself to them!).

Institutional level - Technion as a good practice

- **The Bronica Entrepreneurship Center (BEC)** - a non-profit center, serving all Technion students, alumni and faculty with entrepreneurship ideas. The center accompanies the entrepreneurs from learning about entrepreneurship with knowledge and tools, to assisting fully committed entrepreneurs at the early stages of building their startup.
- There are **internships programs** in industry for engineering students as part of the curriculum.
- **Practical continuing Education** in project management, entrepreneurship, funding and marketing, IPR, etc.
- **The Knowledge Center for Innovation** - promoting research of knowledge on innovation, disseminating it among researchers, students, managers and practitioners, and implementing it in organizations to enhance economic growth, personal growth and well-being. The Center encourages and facilitates open innovation through cooperation between local and global organizations, between academia, industry, and policy makers, and via virtual and face-to-face interactive innovation forums.
- **BizTEC** - the leading entrepreneurship group in the Israeli academy, encouraging and motivating students to act on their innovation. An entrepreneurship competition which combines workshops, advisory meetings with well honored partners and mentors, and a \$10,000 first investment in the winning project at the end of the competition.

5. *Main issues/Recommendations*

- There is a consensus that CDCs are needed and should be part of institutions' services.

- The process may be long and complicated, both at the institutional level and the national level.
- Appointment of an external consultant / external project mentor in order to guide the process.
- Main services recommended:
 - Consulting and advise center for graduates
 - Soft skills workshops and practical trainings
 - Enrichment courses
 - Close contact between academia and private sector
 - Using technological tools and software for career development
 - Regarding the last point- we can use free online services in the CDCs services:
 - a. **LinkedIn**- assistance in networking and finding relevant employers
 - b. **coursea** - online courses in career development issues

ITALY

1. National Overview of Policies and Funding

Doctoral studies: new Ministerial Decree in 2013 set up new rules for PhD Programmes and relevant accreditation procedures by the National Agency.

Different typologies of PhD in cooperation with industry have been introduced, i.e.: Industrial Doctorate and High level apprenticeship (PhD path in companies).

Regional policies foresee actions and support in the field of human resources both for employability and for PhD Programmes.

The National Research Programme (Policy Document) and the Research National Operational Programme (Structural Funds 2014-2020) also foresee specific actions in support of human resources in research. In particular, the Objective "Investment for Growth and Employment":

- Coherence of training with respect to regional employment capacity ;
- Support to new competences needed by industry;
- Innovative Doctorates with industrial perspective.

Last, the **national Project PhD ITalents**, led by CRUI Foundation, is aimed at fostering and supporting employment of PhD holders in Industry.

2. Interviewees Profiles

Academia

- A University researcher from Voice of the Researchers initiative (EC), who won some years ago the L'Oréal prize for young women in research. Now associate professor at an Italian University.
- A Rector's Delegate, member of the university committee on doctoral programmes. He has considerable experience on mobility as well (former Vice Rector for International Mobility);
 1. The Rector's Delegate for Internationalisation;
 2. The Head of International Relations - EURAXESS centre (University)

Government

- Representative of Local policy authority, Tuscany Region.

Private sector

- Former HR Manager at a private research company.

3. Researcher Career Development: point of views

Academia

A. Researcher

Importance of freedom of research and of opportunities to develop one's career: mobility (International, intersectoral) is part of this development.

- Support services should better address the researcher «attitude/inclination/talent» either to public or private contexts;
- Data on employers' needs and structured meetings showing positive examples of career development are very useful tools for researchers and could be provided centrally. But a young researcher is looking also for the experience of senior profiles.
- Researchers need to be guided when they are young, they generally don't know how to present themselves. Mobility helps as they can experience new cultural and professional paths.
- Some issues are culture dependent, i.e. In France importance of the "entretien" for career in academia.
- It is very important being aware of one's own choice – career should not be guided just by casualty.
- It would be helpful to have professional mentors but this is not a structured role and therefore professors often do not provide this type of support.
- Training both for administrative staff and for academic staff is necessary.

B. Delegate for Internationalisation; Head of EURAXESS Centre

- University's Placement office is mostly addressed to students, but several initiatives targeted to PhD students and/or young researchers are offered:
- Contamination Lab (Innovation); Erasmus for PhD students; Globus programme (mobility in non EU countries, regional funds);
- Training for PhD students on «Financing, transferring and communicating research» is provided not on a regular basis, but the University is planning to deliver it every two years.
- The mentioned activities are based in four different offices (Doctorate Office, Liaison Office, Placement and Erasmus Office): integrating them (or some of the initiatives they organise) under the same «umbrella» would be possible, but not immediately. The services are context-dependent (business intensity in the Region).

Government

Regional authority, Dept. for University and Research

- Policies concerning PhD programmes exist but not specifically targeted to career and employability (=> other Department, see below). The new management would like to innovate and they are looking for practices that could inspire policies and renew them.
- However it must be taken into account that they have different department dealing with such issue, like Local Economic Development or Education (also: different funds).
- They consider Career Development Services very important at local level, in fact the work to be done is also in the programming phase of regional funds.

Private sectorFormer HR Manager at a private research company

Capacity to adapt to different contexts is essential: often candidates do not show to have this capacity. Selection of Human Resources: for a company sometimes it is more important to employ someone who is equipped to be integrated rapidly in a world quite different from the public one (university, PRO), than an excellent researcher but with a very rigid attitude.

It is important also that researchers collect information on the specific company for which they are applying: companies are different. Often candidates have a very theoretical approach and they think that what they have been doing until then is appropriate for every company. This is a big mistake: if the candidate gives the impression of being quite far from the real world (“Where am I?”), surely this will result in a negative evaluation.

It would be helpful if the academic world could establish or strengthen its “contamination” with industry. A sort of cultural mediator between industry and public research is needed.

Many companies use professional agencies to recruit: however for a specific profile (i.e. researcher on a specific field), an expert from the company will carry out the interview concerning the specific position the company is offering. Of course the type of profile required depends also on the cultural level of the company’s management.

4. Useful services

All interviewees were oriented towards the capacity of the University to create opportunities of “contamination” between academia and industry, or to support international mobility in case the researchers would like to spend their professional life in a public organization. Whether this kind of services should be centralized in a single unit or decentralized in different units (but under the same umbrella or “entry point”) is a choice that should take into account the existing situation in the organization.

5. Main issues/Recommendations

Given the approach of interviewees, more based on contents than on “service structures”, it would be probably a good idea to start from awareness raising activities for researchers (for their development both in academia / PROs and in private companies).

While the focus on tools or on “career advice” could be misleading (researchers’ expectations, i.e. they expect service to find them a proper job), the focus on motivation and self-management could result in a more effective approach.

The goal should be to give researchers some tools to evaluate and plan their professional development, so that they can better address their «attitude/inclination/talent» either to public or private contexts. This approach could facilitate synergies in the institutions already hosting a EURAXESS centre, because they are in direct contact with researchers. Mobility (International, intersectoral) should be considered as part of this development.

The focus should be more on what kind of initiatives should be put in place and on the types of profiles and competences that can support this sort of “mediation” to employment (just a reminder: it is difficult to mediate culturally without a knowledge of both parties' languages...).

Another issue that is worth considering is that all EU countries generally have funds at regional level to reinforce the human resources development in research (mainly from the EU). Approaching national and regional stakeholders with a coordinated approach at the level of EURAXESS network would be a good

idea.

POLAND

1. National Overview of Policies and Funding

The National Strategy for Country Development to 2020 mentions the necessity for creating an efficient recruitment and financial system of doctoral programs allowing the most motivated students to continue the scientific career. Preparing staff for R+D sector is considered an important factor to increase competitiveness of the Polish economy, however, a consistent and detailed national strategy in this particular area doesn't exist. There is no appropriate training for PhD candidates on soft skills or managing individual research career. What's more, career development is usually understood as preparing graduates to a scientific career, which discourage from developing of industry-oriented training.

In the next years the situation should change due to European Structural Funds (2014-2020) and its programmes dedicated to career development of scientific staff and PhD candidates. Their aim is, among others, close cooperation between different sectors and equipping researchers in skills broadening their professional perspectives at different career stages and sectors. The international doctoral programmes and Industrial Doctorate will be developed.

Also more and more institutions in Poland are implementing the **European Charter and Code's** principles so they will have to introduce or enhance their career development strategies and programmes for researchers.

In Poland there are same organisations supporting scientific career development in various scope. The following organisations do it systematically:

1. Foundation for Polish Science is a non-government, non-profit foundation which finances science. It is the largest source of funding in Poland outside of the state budget. Foundation has recently finished a European-funded project called SKILLS within which it organized career training programmes, including mentoring, for researchers from different Polish regions.

2. Academic Career Offices exist at most universities in Poland. But their main target are students and alumni so theoretically PhD students are also the target group (Bologna system). However, they account only for 1%-10% of the total number of clients. The services of Career Offices are mainly dedicated to undergraduate and graduate students' needs such as finding internships as part of their studies, CV writing, job interview preparation, meetings with employers etc. There are no specific services addressed to PhD students' needs.

3. Association for PhD Candidates and PhD Career Development PolDoc is a nationwide, independent organization whose main role is to provide support for PhD's and PhD candidates in their career development. PolDoc runs consulting, informational and training activities from preparing a CV to stress management. In order to use their services one has to pay a small member fee.

2. Interviewees Profile

Academia

- PhD student (finishing PhD studies) in IT field
- Vice-rector of a university
- Director of an Institute of the Polish Academy of Sciences (member of Board of Directors)
- Staff from Academic Career Offices located at four different universities

Non-governmental organization

- Representative of an independent organization dealing with career development of researchers

3. Researcher Career Development: points of view

Academia

Researchers

- Researchers and doctoral students should be pro-active in shaping their own career development;
- PhD students should also act individually when it comes to their career development: talk to their professors, lecturers, look for training courses and funding opportunities; try initiate contact with business, participate in internships in large companies in the country and abroad; there are various programmes and opportunities at national and European level that they can use;
- researchers should not focus only on opportunities related only to their field of study;
- career services should be differentiated according to disciplines, especially in fast-developing disciplines; students of e.g. biology, chemistry (basic sciences) are less aware of their options for jobs as opposed to IT or medicine which are more practical;
- individual career advice should be established locally at departments – career advisors should know specific discipline and environment; Whereas training courses related generally to career development could be located centrally at the university as a pool to choose from
- the most useful services proposed:
 - 1) Training seminars related to:
 - research commercialisation, running a business, entrepreneurship,
 - interpersonal skills such as public presentations, time-management, organisation of work, online communication etc.
 - 2) Career advice on: different career paths, which companies to cooperate with, how to obtain funding;

Vice-rector of a university

- there is more focus on students' career; most of the researchers, including PhD students, are rather passive and have rather limited expectations in the field of career development. Research activity is quite often treated as a regular job, not as a scientific career which one should be devoted to;
- in addition family model and society expectations towards mothers in respect a proper childcare do not support career development of women. Because of this fewer women start scientific careers even though they constitute a majority at all 3 education levels;
- it is university's responsibility to make PhD students aware of what work opportunities they have in and outside academia and of the importance of career planning and how to do it. More time should be devoted to mentor-student mentoring which is essential in career development,
- PhD candidates already at the beginning of studies should be informed about different career paths, courses, internships, training, some of which can be mandatory and others optional,
- doctoral candidates have some soft skills courses within their studies but they should be better adjusted to market needs not only to work in academia;
- there should be consultants/advisors at universities specialized in career development of researchers such as Academic Career Offices but for researchers.

Academic Career Offices

- two groups of clients: those very active and looking for different options to enhance their chances

Report on Career Development Services and Centres in The EURAXESS Network

for job and those lost and unaware of their future; they have high expectations, expect immediate results – ‘find me a job’;

- there is little awareness that career development advice is useful; PhD candidates do not identify themselves as “students”, nor are they treated as research staff. That is why they are not interested in the services for students and they do not feel that the services can be useful for them. They are also not aware that they can in fact use some services which are universal such as interview preparation, business CV writing, or other soft skills training,
- PhD supervisors should be more engaged in supporting their students ← mentor’s role! Both PhD students and supervisors don’t have up-to-date information on the market situation,
- awareness and knowledge of career prospects depend on the university’s profile/discipline –more awareness in practical disciplines (e.g. medical, engineering),
- doctoral students prefer to contact peers, scientific clubs, associations that are closer to their field
- PhD students are especially interested in legal advice and CV writing in English (they have difficulties selecting information for a business CV) and also meetings with employers in a specific field,
- lots of promotion of career services is needed, also awareness raising,
- lack of research career advisors for such untypical clients as researchers,
- career advisors should attend regular trainings, should be up-to date with situation on the market.

Director of an Institute of the Polish Academy of Sciences

- there is no national policy that would limit the number of doctors at universities or institutes; they receive funding according to the number of admitted students. With such policy, institutions don’t have to think what happens with doctors when they graduate,
- it is the employer that should be responsible for career development of the staff,
- career development courses should be part of PhD programmes and should be different than 1st and 2nd cycle students programmes,
- as in the Polish Academy Institutes there is no teaching obligation in PhD programmes, there are higher expectations from PhD candidates and there is more time for individual care/advice/supervision;
- due to the size and resources of individual institute, it would be more reasonable to invite external career professionals for training or to send PhD candidates to external training, or to use e-learning,
- there could be a career centre/services at the Academy’s level, for different institutes due to the number of PhD candidates; it could show them what opportunities they have after PhD.

Representative of a non-governmental organisation

- the offer of the Polish Academic Career Offices is not adjusted to PhD candidates; they have different needs and expectations; there is lack of scientific career development specialists,
- when attending different debates, a reluctance of scientific environment to treat PhD candidates as specialists in their fields and not as students is visible,
- lack of knowledge of the non-academic sector/ the reality resulting from functioning in closed academic environment; lack of knowledge of individual competencies and skills;
- there should be a national strategy and guidelines for career development to be implemented by universities with results monitoring system; interdisciplinary PhD programmes should include different courses, training, team work on projects, personal advice, etc. in order to prepare PhD students to different roles they will play – experts, managers, analytics in companies etc.

Career development support should be multi-level:

- at universities career courses should be included in PhD programmes,
- additionally, career units specialising in researchers could be located close to research institutions or closely cooperating with them; they should have close links with non-academic world such as business, also abroad. Such organisations could inform researchers on the different opportunities in different sectors,
- career services could be set up at individual faculties/departments instead of centrally – especially at big universities,
- there should be a common platform of knowledge and information on various activities dedicated to career development.

4. Useful services

Based on the interviews, we can have different career services

Training - universal for any research discipline:

- awareness rising on the importance of career development and on how to manage your research career;
- soft skills training e.g. CV writing, public speaking, project/team management;
- pedagogical skills;
- psychological training e.g. stress/time management;
- entrepreneurial skills;
- grant proposal writing;
- networking skills e.g. how to use social media in career development.

Training - related to specific research discipline:

- research results commercialisation;
- opportunities at the job market, cooperation opportunities, funding;
- meetings with employers.

Services related to commercialisation of research results:

- legal advice on e.g. IPR;
- how to commercialise your research results;
- how to run a company, spin-off, start-up etc.;
- business plans;
- funding opportunities.

Personal advising (one-to-one):

- coaching;
- identifying skills and competencies;
- daily conversations with PhD supervisors;
- career opportunities identification;

- meetings with employers;
- psychological consultations.

5. *Main issues/Recommendations*

Based on the interviews we can see that there is lack of a structured approach to professional career development. In particular, emphasis should be put on PhD candidates because only a small percentage of them stays at universities or research institutes. Career Advice in this respect should be close to scientists, at universities for example in Academic Career Offices. The scope of their activity could be extended to activities dedicated to scientists but they should be appropriately tailored to the needs of this specific group.

PhD programmes should include various courses, training seminars and internships broadening their skills and knowledge useful at the rapidly changing job market. Raising scientists awareness about the necessity of active taking care over their development, knowledge on employers needs in different sectors, and analyzing their strengths and weaknesses – these should be some basic activities of career advisors. Further steps should encompass: appropriate tools, including different training courses, platforms with information on training offers and grants, as well as individual coaching and mentoring. Development of this area depends heavily on the availability of advisors specializing in different aspects of scientific career development, who are currently missing.

EURAXESS needs to take several aspects into consideration:

- competent staff and money is required
- limited number of staff specialised in career development of researchers
- lack of a doctoral candidate/PhD competences profile
- effects of career advice giving not easy to measure
- demand for career services is different depending on research discipline
- career services need promotion
- cooperation with external organisations, trainers, experts (coaches, lawyers) is needed.

UNITED KINGDOM

1. *National Overview of Policies and Funding*

Prior to 2003 there was little co-ordination between researcher development services in the UK, with most activity subsumed within broader careers services and little to target researchers specifically.

In 2003 Roberts Funding (£20 million per year) was provided to universities for the development of researcher career development. Individual universities bid for the funding and used it in a number of ways. Case studies were created by Vitae for a number of examples.

Typically funding was spent on the employment of skilled staff embedded within individual faculties or at the university level but with postdoc specific skills. In general there was an expansion in the number of specialised people dedicated to researcher development – and the UK was in good shape in this regard. A lot of the outputs from this activity (websites etc.) were made open access across the UK.

Funding ended in 2011 and there has been some subsequent decline in services and standards, although

lasting benefits have been introduced. Most of this activity is at the University level with no overarching national scale coordination.

Activity at the national scale is conducted through the research councils and the not for profit NGO membership organisation Vitae.

2. Interviewees Profile

Academia

- Two heads of department from prestigious UK universities (Oxford and Cambridge)
- Post graduate careers adviser from a Russell Group University (Sheffield)
- Post-doctoral researcher in biomaterials

Government

- Head and Chair of Vitae (ex-government funded - member funded since 2015)

Private sector

- Head of capability and acquisition at a large engineering company (Rolls-Royce)

3. Researcher Career Development: point of views

Academia

A. Heads of Department

Both heads of department interviewed described the structure of researcher career development in their departments and how it differed with other institutions. The provision of researcher development apparently varies considerably between universities although in general the structure can be described as following. Most of the points of view recorded as part of the interview process supported the logic behind this approach.

A tiered structure is in place with development support at different levels but avoiding duplication.

Tier 1: Support from the researcher's supervisor

The interviewees argued that it was ultimately the supervisor's responsibility to create good researchers and recognised that this extended beyond knowledge-based, research-related advice to broader skills for researchers. This is beneficial due to the support being bespoke to a particular case and clearly an important type of support to encourage (both heads of department mentioned that they actively encouraged this kind of support). However, both interviewees also recognised that support at this level was vulnerable to uninterested or uninformed supervisors providing poor or no advice and the benefits of such support also depend on the relationship between researcher and supervisor.

Tier 2: Department/Faculty level support

This varies significantly between universities but can include opportunities for networking with senior researchers, opportunities for internships, forums, workshops, competitions, talks and in some cases trained careers advisers will be embedded at the faculty level. Both interviewees were keen to emphasise that these opportunities are vital to the creation of a healthy research environment – that these events are arranged and made available but are not mandated as students should take the ultimate responsibility for engaging in this kind of activity.

Tier 3: University Level

Usually this has more of a focus on broader career development with online materials (sometimes open access as with Manchester University), trained advisers with specialisms in research, 1 to 1 guidance, training in CV and cover-letter writing, mentoring, interview preparation plus a range of courses dependent on the university. As most services are embedded within broader careers services opportunities exist that don't elsewhere – for example researchers can be put in contact with alumni who

have knowledge of a particular role. Some universities have instituted a monitoring system for recording progress against pre-determined targets but the more general approach is for the use of guidelines rather than protocols (the justification made by one of the interviewees was that the universities like to treat their researchers as adults who can to a large degree make their own decisions regarding the amount of development activity they need to take part in).

Tier 4: National Level

Both interviewees demonstrated a slight lack of knowledge regarding the details of national scale activity. Although both were aware of the names of the relevant programmes through the research councils and Vitae (explained below under the government heading) and could briefly explain their nature, it was evident that they had little recent practical knowledge of these systems.

As you move up this tiered system the support becomes more general, but also more reliable and structured. Both interviewees seemed to consider this tiered structure as a robust catch-all approach that provided generally available support available to all, whilst maintain a certain level of discipline and even research area specific support.

Some caution was expressed regarding the feeling that some students were spending more time than they should be on career development activities and not leaving enough time for carrying out the research that is their main aim.

B. Careers Adviser

Comments from the careers adviser were generally supportive of the development of wider scale researcher development opportunities. However, some caution was advised regarding making the situation even more complicated than it currently is – it was suggested that some students were turned off by the bewildering array of opportunities that are not always clearly explained.

The careers adviser interviewed provided information as to the popularity of different kinds of researcher development activity which can be ranked as follows:

1. CV / cover letter writing advice (both academic and non-academic)
2. 1 to 1 advisory sessions
3. Workshops

It was also mentioned that post-doc students have been shown very reluctant to use careers services (somewhere around 4% - increasing to 14% after some previous exposure to events) and that the reasons include:

1. Researchers don't feel they are being catered for by current services (often a prejudiced rather than informed opinion)
2. The careers services are too generic and can't advise on academic issues (true to varying degrees depending on the institution and tier)
3. Reluctance to be seen going to the centres (embarrassment or fear of what their colleagues and supervisors will think)
4. More likely to take advice from peers, friends and family.

C. Researcher

- The researcher interviewed made reference to the fact that whilst career development tools are undoubtedly essential – there is a profusion of such tools available which has the double effect of diluting the quality of the services that are provided whilst simultaneously making the structure confusing and inaccessible.
- The interviewee also did not demonstrate significant interaction with career development services beyond what would be described as tier one mentioned above – although they had visited a number of careers fairs organized at the university level. Networking with peers at conferences was highlighted as being an especially useful non-organized method for career development. The reason given for not engaging with department and national level career development activities was limited

time as a result of a demanding research lifestyle.

Government

A. Head and Chair of Vitae

The interviewee was especially illuminating in providing a clear snapshot of the national level provisions for researcher career development, of which there are a number of mechanisms.

The national funding bodies (the research councils) provide development opportunities for their grant recipients. In particular their CDTs (centres for doctoral training) offer a number of services including grad-schools. The not-for-profit organisation Vitae (the research arm of a more general careers service CRAC) also provides services at a national level, and there are other opportunities through the institutions associated with particular disciplines. At the national level, support is often tied closely with and is an extension of work through AGCAS (Association of Graduate Careers Advisory Services).

Created by Vitae the RDF (researcher development framework) is based on an in-depth analysis of the UK research environment and combines it with the well-established 'journey of thinking':

Motivation → Competencies → Opportunities → Jobs

The interviewee stressed the importance of the motivation step, which is often overlooked but is central to the process of career development.

The Framework is designed to:

- Allow researchers to evaluate and plan their professional development
- Assist managers and supervisors of researchers in their role supporting the development of researchers.
- Assist trainers, developers, human resources specialists and careers advisers in the planning and provision of support for researchers' development.

Private sector

A. Head of Capability and Acquisition

The interviewee explained the current state of industry academic partnering in the UK.

Large corporations that use researchers in the UK tend to have their own bespoke development mechanisms. There is little to no communication with the university systems save from a few key partnerships. The opinion was expressed that good researchers will necessarily have the core skills required (and/or will have the sense to seek development themselves) and that these skills will then be built upon during their employment.

The interviewee being heavily involved in the Rolls-Royce UTC (University Technology Centre) structure lauded this kind of industry to academic relationship. These are industry funded research groups in key universities that work closely with researchers from industry. Academic researchers are exposed to broader industrial concerns, network with industrial researchers, have access to Rolls-Royce training and are required to present work to an industrial audience.

The interviewee suggested that students coming through a UTC have more of an awareness of the differences between practical and academic research than those who have not.

However, the benefits associated with this type of partnership are not made available more widely around the researcher community, even within the same university. And there is also the problem that researchers within the UTC system might not seek services outside the system which would give them a broader view of their opportunities.

4. Useful services

A number of services both online and face-face are offered through the following organisations:

- Vitae
- RCUK
- The individual research councils (EPSRC, BBSRC, AHRC, ESRC, MRC, STFC, NERC)
- Individual university professionalization programmes
- Individual university careers services (websites sometimes available more widely – i.e. Manchester University)
- British Council
- International Unit
- Discipline-specific Institutions
- Royal Academies and Societies

5. *Main issues/Recommendations*

Issues

- Historically there has indeed been a lack of formal support to postdocs at the institutional level as it is commonly seen that support is to be provided for students rather than staff. This attitude is changing but slowly.
- Student behaviour is very variable, some researchers are not interested in development at all focusing only on their research, but at the other extreme there are some students that spend all their time on development activities without doing much research at all. Anxiety regarding the latter of these two extremes results in caution among supervisors in encouraging their researchers to seek formal support.
- There is the risk of over-providing in terms of services. There are a lot of services available to UK researchers and there is evidence that some researchers are overwhelmed by the complexity of development structures.
- The intensity and pressures associated with PhD programmes do not make it easy for students to find time for development.
- There is a perceived lack of services that can provide skills of general use to industry beyond transferable skills such as the basics of supply chain management, manufacturing practice, quality control etc.
- One of the biggest hindrances to the development of effective services is a general lack of careers destination information.
- There is a need for those providing researcher development services to work more with employers who have been quiet regarding their requirements. Existing measures taken by employers regarding pursuing their requirements is carried out independently or uses a 'one size fits all' approach such as graduate schemes which reduce the benefit of completing a PhD.
- Most people recognise the importance of researcher career development – but there is also a common feeling that the number of services offered in the UK is already more than enough and that emphasis should be on clearer communication of the services available and overcoming the barriers to their use rather than the development of more services.
- It is possible that the opt-in nature of the UK system fails those from cultures with an absence of emphasis on career development (there is a very strong emphasis on career development at the undergraduate level in the UK which a lot of the services mentioned here build upon).

Recommendations

- There is general agreement that although the responsibility of career development lies with the researcher, the services need to be available, easily accessible and that an external trigger is needed at the national level in terms of the promotion and funding of activity.
- There needs to be an emphasis on the promotion and marketing of new services produced or else there will be no benefit to their implementation.

- There needs to be a general recognition that industry has a responsibility to communicate its requirements regarding researcher skills.
- We need to build a database of careers stories categorised by discipline and relating to gender to help set examples through others' experience (the UK has built up a reasonable store but should be extended throughout Europe).
- The creation of info-graphics for provision to supervisors (downloadable) would be effective at improving tier 1 activity.
- Allowances need to be made for discretion with some services (i.e. interviews in the library, or online tools).

Common issues

Below, a summary of main issues highlighted in all countries is provided:

Existing services and funding

Academic Career Offices exist at most universities, but mainly addressed to students. Activities such as CV writing, meeting with employers, internship are commonly provided to various extent by the offices. However, although there is a consensus that CDCs are needed and should be part of institutions' services, the process of creating them may be long and complicated, both at the institutional level and the national level. Integrating existing services (or some of the initiatives universities organise) under the same «umbrella» at institutional level would be possible, but not immediately. In addition, the issue of resources should also be considered: just to give an example, in the UK in 2003 Roberts Funding (£20 million per year) was provided to universities for the development of researcher career development.

Generally speaking, extensive and targeted **policies for the employment of PhD students/holders and young researchers** are not provided at national level: in particular, there is no obligation to prepare PhD students for career outside academia (i.e. Ireland has a national tool and the core PhD curriculum embeds both modules covering skills to advance competence as a researcher, and transferrable skills to enhance overall employability). However, **European Structural Funds** provide for support in these areas (in Poland part of ESF will be used to support development of the scientific staff). Synergies should be explored.

Concerning the structure of career services, among the target countries of Task 3.1, UK seems to be the only country where examples of (and long experience on) structured research career advice can be found.

The Researcher Development Framework, created by Vitae in the UK, is based on an in-depth analysis of the UK research environment and combines it with the well-established 'journey of thinking', in which motivation is central to the process of career development, as follows:

Motivation → Competencies → Opportunities → Jobs

Researchers

There are **different "types" of researchers**: active /non active; exclusively interested in public research/ interested in employment outside academia. This interest is often "discipline dependent" (there might be a "disciplinary challenge" also in the provision of services). Some researchers are not interested in development at all, focusing only on their research, while there are some of them who spend most of their time on development activities. Professors often do not provide this type of support as the role of professional mentors is not a structured role. Moreover, academic mentors can be obstacles instead of "accelerators" (tendency to look at their own world, discipline and experience, lack of knowledge about current markets and trends). Researchers might not seek advice outside the system they know, and therefore might miss the opportunity to gain a broader view of their opportunities (this happens also in large companies with structured collaboration with universities, see the Rolls-Royce UTC case in the UK).

Report on Career Development Services and Centres in The EURAXESS Network

There is a general **lack of information** on “careers destination”. There is a need for those providing career development services to work more with employers. Generally, researchers lack awareness also of their own skills and of their own career development and the market demands.

Private sector

The **private sector** clearly think that researchers from academia have very little knowledge about the private context and its functioning. Universities and the private sector (companies) do not speak the same “language”: they have different working methods and norms. In addition to this, large companies tend to have their own development mechanisms. Moving from Academia to the private sector means a change in environment, different expectations and, besides, requires ownership of time management.

Conclusions

Recommendations from Task 3.1

The following is a set of Recommendations based on the results of the survey, from interviews carried out in the five countries of beneficiaries of Task 3.1 and from discussions held during the meeting of a Focus Group held in Rome in January 2016.

- ❖ Starting from the awareness raising activities for researchers (both for their development in academia / PROs and in private companies) could be a reasonable step. While the focus on tools or on “career advice” could be misleading (researchers’ expectations, i.e. they expect service to find him/her a job), **the focus on motivation, recognition of own competencies and self-management could result in a more effective approach**. The goal would be to give researchers some tools to evaluate and plan their professional development, so that they can better address their «attitude/inclination/talent» either to public or private contexts. This approach could facilitate synergies in the institutions already hosting a EURAXESS centre (that is in direct contact with researchers). Mobility (International, intersectoral) should be considered as part of this development. PhD students might require a different kind of services from Post Docs.
- ❖ Use of existing resources and cooperation between faculties and units should be promoted, not only for financial reasons but also because this could contribute to better promote the initiatives targeting researchers. **There needs to be an emphasis on the promotion and marketing of new services produced** (ex. In the UK: Post-doc students initially very reluctant to use careers services - around 4% - increased to 14% after some previous exposure to events).
- ❖ **The organisation of initiatives that can give researchers the opportunity to get in contact with industry and to experience this “contamination”** (internships, presentation of testimonials, industrial doctorate, etc.), **should be part of the activities**. It is also possible to explore a targeted use of free online services (such as LinkedIn or Coursera - online courses in career development issues), but the process should be guided, as the selection of information is not easy.
- ❖ Although it should be clear that the responsibility of career development lies with the researcher, **the services need to be available and easily accessible**.
- ❖ **External partnerships are needed** at the national level in terms of the promotion and funding of activity. There is a need to collaborate with national stakeholders, funding agencies and policy makers.
- ❖ There needs to be a general recognition that **industry has a responsibility to communicate its requirements regarding researchers’ skills**. Private sector has a role to play.

Annexes

Model Questionnaire.

Career Development Centres in EURAXESS – we need your views!

Background

Career management has become increasingly important for both researchers and their employers. To achieve the ambitious goals outlined by the European Commission regarding research and innovation, assisting the professional development of researchers has been identified as a topic of high priority. Early stage researchers need professional advice when making career decisions in Europe.

There is clear need for a professional development framework, as there are significant differences among European countries regarding the availability of such tools for researchers. Some countries appear to have none of these tools at all. A future broadening of the EURAXESS Services portfolio is envisaged to include career development services offered to European researchers mobile and non-mobile alike.

PLEASE ANSWER! WE NEED THE NETWORK'S VIEW!

WE COUNT ON YOUR EXPERIENCE! LET'S CONTRIBUTE TO SHAPE THE FUTURE OF EURAXESS

The questionnaire will take **about 15 mins**. You will find a full preview (pdf) at the following link [Survey-TopIII.pdf](#), but please be aware that the questionnaire can be completed exclusively online, at the link you will receive at your e-mail address. The data collected will be treated anonymously and exclusively for the analysis carried out in the framework of the project.

The survey will be closed on the 23rd November 2015

* Contact Person

Name of respondent

E-mail address

Name of the Organisation

Country

* Name of the unit or service where the EURAXESS service centre is located

(for instance "International Relations Office" Etc.)

* Role in EURAXESS:

BHO

Service Centre

*** 1. Does your EURAXESS service centre provide support or advice on career development for researchers (mainly R1 and R2 according to the “*European Framework for Research Careers*”)?**

YES

NO

*** (If yes) 1.1 What kind of services do you provide?**

FREQUENCY table

	weekly	monthly	quarterly	yearly	not provided at all
Making available CVs to employers through platforms or via e-mail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sessions on the use of EURAXESS JOBS for employers in the private sector	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meetings/training sessions on "finding a job" (writing a CV; finding contacts; interviews; cover letters, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Meetings with companies interested in employing researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Training on soft skills such as time-management, problem solving, planning and organizing, team-work, etc.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Mentoring on career development/career advice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organisation of group meetings with employers for researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organisation of individual meetings with employers for researchers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Providing Counselling for professional development	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Psychological counselling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organising internships in companies or private organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Organising internships in public organisations	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Other (please specify)

*** 1.1.2. Please describe which tools (if any) you use in order to better address the needs of researchers:**

- Internal databases (collecting data on companies and/or on researchers)
- Intranet or extranet;
- Blogs or social networks;
- CRM (Customer Relationship Management) Platforms
- E-learning platforms
- None
- Other

Other (please describe)

*** 1.1.3 Please describe how the whole service is organized, providing also information on: staff involved, availability of own resources /external funds, autonomy of the unit (max 3,000 characters):**

1.1.4 Please provide reference to the type of official documents describing the service (i.e. Regulation; Statutes etc.)

1.1.5 Please provide reference to web pages (if possible in English) presenting the service:

1.1.6 Which “feedback tool” concerning the services provided and their impact do you use (if any)?

- interviews;
- customer satisfaction questionnaires
- meetings;
- data collection;
- none
- other (please describe)

other

1.1.7 What services do researchers ask most frequently for?

* 2. Does any other Unit at your institution provide career development services addressed to researchers?

YES

NO

Don't know

* 2.1 **If yes** please put the exact name of the service and the unit /office where it is located

* 2.2 **If no:** does your unit or your institution plan to establish this service in the near future (i.e. within one year)?

- YES
- NO
- DON'T KNOW

2.3 Who (= role) would be responsible at your institution in order to decide to create and/or support this kind of services?

*** 3. To your knowledge, is there any source of information (regular surveys, databases, etc.) at local, regional or national level, providing data on:**

- employment of researchers /highly skilled personnel;
- industry or private sector needs as far as competencies of highly skilled people are concerned?

- YES
- NO
- DON'T KNOW

3.1 If yes, please provide the name(s), URL (if applicable) and a brief description (max 1000 characters):

*** 4. To your knowledge, is there any organization (private or public), at local, regional or national level, providing career development services for researchers (mainly R1 and R2 according to the “European Framework for Research Careers”)?**

- YES
 NO
 DON'T KNOW

4.1 If yes, Please describe (name, location and URL of the service if available)

*** 5. Is there, to your knowledge, any national or local/regional policy supporting the employment of researchers (mainly R1 and R2) outside academia?**

- YES
 NO
 DON'T KNOW

5.1 If yes, please describe briefly or provide us with references

*** 6. Please rate the importance, in your views, of career development services targeting researchers for the EURAXESS centres (1 Not important at all – 5 Essential)**

	1	2	3	4	5
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

7. What are in your opinion challenges or threats in setting up and running this kind of services? Please describe

8. In your view, what are the main skills or competences that should be developed by the staff in a EURAXESS centre or at your own institution in order to be able to provide this kind of services to researchers? Please list:

9. Any other comments? Please feel free to elaborate further