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Specialised Support for Doctoral Students in Academic Career Offices-Needs, Tools, and Effectiveness in the Polish Context

Barańska, Magdalena
magdalena.baranska@amu.edu.pl, Adam Mickiewicz Uniwersity in Poznań

Abstract

Context: The contemporary academic landscape poses significant challenges for doctoral students and early-career researchers, who must balance scientific development with career preparation beyond academia. In the response to emerging needs universities have entrusted certain doctoral career-support responsibilities to specialised units, among which Academic Career Offices (ACOs) play a pivotal role. While doctoral education within doctoral schools may delay participants from the labour market, this effect is highly individual and influenced by multiple factors. Some doctoral candidates engage in employment outside the university, contingent upon their field of study, availability, motivation for pursuing doctoral studies, family circumstances, and institutional employment policies.
Approach: This article presents a literature review and document analysis concerning the support for doctoral students solely within the Polish academic system, emphasizing the key role of Academic Career Offices in organizing and implementing career counselling and support processes at Polish universities. This article aims to discuss possible strategies for supporting young researchers in developing career paths both within and beyond academia, with special attention given to recommendations for career counselling and the role of career offices in the academic community (particularly doctoral students) integration, with the labour market. References to European regulatory frameworks and practices are cited solely to situate the Polish analysis within a broader international context; however, they do not constitute the primary focus of this detailed study.
Findings: The results from literature reviews, document analyses, and online resource evaluations reveal that early-stage researchers require comprehensive support in career planning both within and beyond academia. The essential needs include developing soft and managerial skills, advising on of scientific research commercialization, and facilitating collaborations with industry and NGOs. Academic Career Offices (ACOs) offer diverse resources such as personalized career counselling, skills workshops, digital tools, and internship and grant programs. Effective practices include mentoring, webinars, consultations, and concise educational modules known as “knowledge pills.” Nonetheless, institutional barriers - such as limited awareness of services,

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a scarcity of career advisors, and inadequate cooperation between university and external entities - constrain the impact of these initiatives.
Conclusions: The effective support for doctoral students through Academic Career Offices requires an integrated approach that combines scientific skill development with preparation for non-academic careers. Key priorities include enhancing awareness of available services, expanding cooperation with industry and NGOs, and ensuring a sufficient number of qualified advisors. Strengthening collaboration among faculties, doctoral schools, and external partners, as well as regular evaluation of initiatives, is also vital. Such measures are essential for better equipping early-stage researchers to navigate contemporary labour market challenges both within and beyond academia

Keywords

doctoral students, academic career offices, vocational advising, tools and effectiveness

1 Introduction: Context and Rational

The growing complexity of the modern labour market and the increasing diversity of career paths available to highly qualified individuals have made the professional development of doctoral students a key priority for higher education institutions worldwide. Recent theories emphasize a holistic view that links personal, organisational, and contextual factors, highlighting the need for continuous investment in human capital to enhance adaptability (Becker, 1994; Olkowicz & Jarosik-Michalak, 2023; de Vos et al., 2011). Additionally, boundaryless career theory highlights the increasing mobility and cross-organisational transitions among knowledge workers, stressing the need for flexible career support (Arthur, 1994). The protean career concept further emphasizes self-directed career management and adaptability as core competencies in dynamic labour markets (Hall, 2004). Finally, contemporary research on reskilling and upskilling illustrates the critical role of continuous learning in maintaining employability and advancing professional trajectories in rapidly evolving academic and non-academic environments (Li, 2024). Hnatkova et al. (2022) present that growing numbers of doctoral graduates follow diverse career paths, requiring tailored support that reflects changing labour markets. As the number of doctoral graduates continues to increase, universities face the challenge of ensuring that these young researchers are equipped with the necessary competencies to navigate both academic and non-academic environments successfully. Systemic support for career planning and skills development is essential to fully utilize doctoral graduates' potential. In this context, academic career offices play a pivotal role in bridging the gap between doctoral education and the evolving demands of the contemporary job market. Growing diversity among doctoral candidates encompasses not only demographic differences but also varied motivations, prior experiences, and professional aspirations, which compel universities to develop flexible and individually tailored support strategies that effectively address the complex and unique needs of their doctoral students (Olkowicz & Jarosik-Michalak, 2024). The decision to pursue doctoral studies involves significant challenges; however, unlike the common perception of complete detachment from the labour market, many doctoral candidates take up employment depending on individual circumstances and relevant legal regulations. This process requires participants to undertake a wide range of activities, such as conducting scientific research, publishing, attending conferences, teaching, and completing internships. While these endeavours are crucial for academic development as well as future scholarly career, they can also limit or delay the

establishment of a professional position in the non-academic sector. Consequently, young researchers often face the challenge of managing commitments both within academia and the labour market. The European Charter for Researchers (European Commission, 2023, 2005) emphasizes the need to support young researchers in developing their careers through professional counselling.

Recent research indicates that young researchers in Poland face distinct challenges related to mobility, career planning, and access to tailored institutional support, underscoring the critical need for systemic career development initiatives (Wycisk et al., 2018). The professional development of young researchers is a multifaceted process that requires continuous support from early education through doctoral studies, emphasizing the importance of tailored institutional strategies to foster academic and non-academic competencies (Bukowiecka, 2018).

In this context, the role of supporting institutions, such as career offices, becomes vital in equipping doctoral students with the tools and resources needed to effectively balance academic activities with professional development outside the academic environment (McAlpine & Emmioğlu, 2024). Career offices can assist young researchers by providing materials, organizing webinars, and offering soft skills training and career management. In addition, they facilitate individual consultations and provide support in preparing professional application documents tailored to the specific characteristics of academic experience. A key area of their activity is building networks with employers in the non-academic sector, which helps participants in a doctoral program transition into the labour market. This study aims to collect and systematise knowledge regarding the resources and methods of supporting doctoral students offered by Academic Career Offices at Polish universities, with particular emphasis on their role in facilitating the planning of doctoral students' career pathways.

2 Methodological Overview and Sample Justification

This study uses desk research based on secondary data from literature, documents, and institutional websites. This approach focuses on 10 universities awarded the status of The *Excellence Initiative – Research University* (ID-UB), selected for their exemplary scientific potential, international collaboration, advanced research infrastructure, and rigorous monitoring by independent experts. These features ensure high-quality, representative data for analysing doctoral career support in Poland.

3 The Reform of the Polish Doctoral Education System

When considering the advisory needs of PhD students, it is important analyse the definitions that characterise this group. According to the definition applicable in Poland, they have a status of young scientists. Young scientist is a person conducting scientific activities who: is a doctoral student or academic teacher and does not have a doctoral degree or has a doctoral degree, from which 7 years have not passed and is employed in an entity, referred to in Article 7(1) of the above-mentioned Act (Act of 20 July 2018, Art. 360(2)). Adopting such a definition is important in the process of designing a professional career, both academic and non-academic. The term 'young scientist' is not directly related to age, but rather to experience in the field of research. The 2019 reform of doctoral education in Poland replaced doctoral studies with doctoral schools to strengthen research quality, internationalization, and alignment with labour market needs. This reform not only transformed the organisational and financial structure of doctoral studies, but also influenced the perception of career pathways, the responsibilities of

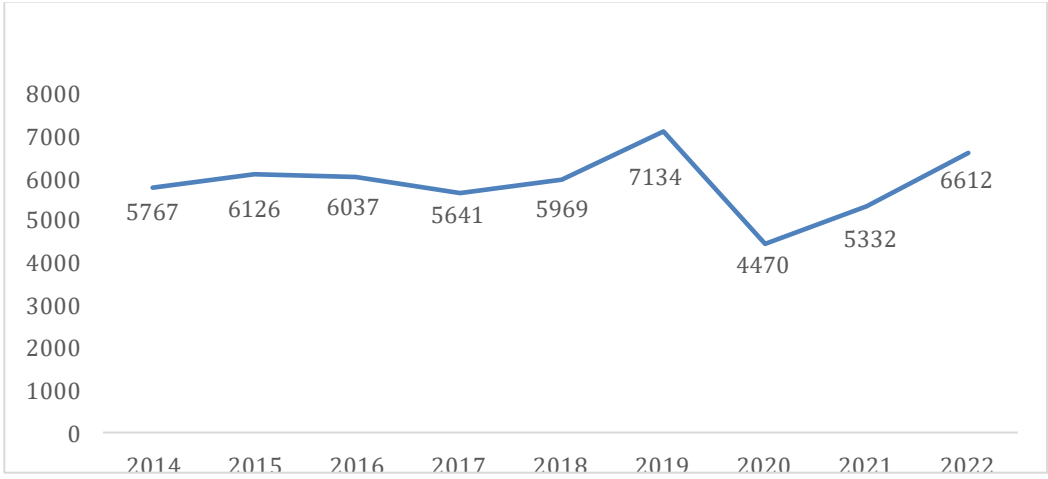
doctoral students, and the availability of professional support. The key changes are summarized in Table 1 and Figure 1.

Table 1
Selected Differences in Doctoral Education in Poland Before and After the Reform

Doctoral studies	Doctoral School
Run until 31/12/2024 - Act of 27 July 2005 Higher Education Act D.U. 2005 No. 164 item 1365	They started in 2019/2020 - Act of 20 July 2018 - Law on Higher Education and Science Journal of Laws 2021.0.478 (Constitution for Science)
Possibility of extending the doctoral program	4 years duration (no longer)
Not all PhD students received a scholarship	General scholarship (each PhD student receives)
Social scholarships and benefits	
No contributions	Pension contribution, disability insurance contribution, accident insurance contribution, sickness insurance contribution (upon request)
Full-time/part-time +external	Only stationary (Full time) + external
Annual evaluation	Mid-term evaluation after 2 years - affects the amount of the scholarship (from 37 to 57% of a professor's salary)
Possibility of additional work	Firstly, a prohibition from working. This is being changed to the possibility of taking on additional work

Note: Source author's own elaboration based on documents of the Ministry of Science and Higher Education, 2020–2024.

Figure 1
Number of People who Obtained a Doctoral Degree in Particular Years



Note. National system for monitoring the economic fate of university graduates, ELA Report: Doctors in 2014-2022.

The reform responded to inefficiencies in the previous system, such as low completion rates, limited international cooperation, and weak collaboration with the labour market. The reform also aimed to align Polish doctoral training with European Research Area standards and improve its global competitiveness (Dziedziczak-Foltyn, 2018; OPI, 2025). The reform of doctoral education has introduced a series of structural and functional improvements that significantly influence doctoral candidates' professional trajectories. Greater financial stability, focus

on transferable skills, and international mobility better prepare PhD students for academic and non-academic careers. Between 2014 and 2022, the number of people who obtained a doctoral degree (in all disciplines) in Poland amounted to 53,086 (see Figure 2). The exact figures for specific years are shown in the chart below.

The chart above demonstrates the dynamics of the doctoral thesis completion process. It applies to individuals who completed their doctoral studies as part of a doctoral program. The data presented in the chart also reflects the number of individuals who are likely to be interested in pursuing employment in the scientific sector, including at universities; however, it should be noted that the current market situation indicates that not every graduate who successfully defends a doctoral dissertation will obtain an academic position. For this reason, it is essential to provide highly educated and skilled individuals with comprehensive, tailored career support that is highly personalised, thereby preparing them for a wide range of opportunities both within and beyond academia.

While the article acknowledges the persistence of doctoral attrition, it is important to emphasize that the reasons for PhD dropout extend beyond financial considerations and include factors such as insufficient academic mentoring, challenging supervisor-student relationships, lack of access to career counselling, limited opportunities for professional skills development, and personal circumstances such as health issues or family responsibilities; addressing these multifaceted causes requires a holistic approach, including improved mentorship, better integration of career counselling into doctoral programs, and the creation of a supportive institutional environment. Analyses conducted by the National Information Processing Institute (OPI, 2023) indicate that the reform of doctoral education in Poland- precisely the transition from traditional doctoral studies to doctoral schools - has yielded positive outcomes, primarily due to financial stability improvement ensured by a guaranteed four-year scholarship, which might be increased after a successful mid-term evaluation. However, doctoral attrition continue to occur for reasons other than financial ones. The changes that have taken place in the doctoral education process have a profound impact on the needs of doctoral students in terms of planning their future career paths. To properly understand the contemporary advisory expectations of PhD students in Poland, it is essential to consider the institutional context, particularly the doctoral education reform introduced by the Act of 2018.

4 Specific Needs of PhD Students in Poland

Doctoral students are a highly diverse group differing in demographics, experience, motivation, and disciplinary background. International doctoral students face additional barriers such as language, networking, and limited labour market familiarity. Advisory assistance should therefore address their specific requirements by offering, for instance, consultations in English, international webinars, and workshops that introduce the professional realities in Poland. Understanding doctoral retention requires considering supervision quality, access to counselling, and professional skills training. International studies, such as those by McAlpine and Emmioğlu (2024), confirm that the lack of academic support, challenging supervisor–student relationships, and limited access to career counselling are, together with personal circumstances and financial concerns, among the most frequently cited reasons for doctoral attrition. Effective career guidance enables better use of doctoral graduates' potential across sectors. International recommendations emphasize the need for systemic advisory structures, enhanced focus on

transferable and soft skills development, stronger university–society linkages, and the professionalization of the supervisor's role to include career mentorship. Research at Nicolaus Copernicus University showed that, besides low income, key reasons for leaving academia include limited autonomy and professional development opportunities. The research team also found that 14.7% of respondents cited the unavailability of employment at their home institution as a sufficient reason to leave academia, while 10% indicated strong competition as a decisive factor. Above-presented results confirm that, alongside financial considerations, institutional constraints, restricted access to career planning resources, and a lack of prospects for development and stable employment are critical determinants influencing the decision to abandon an academic career (Karwowski, 2025).

5 PhD Students Career Development - Needs and Challenges

The difficulties faced by young researchers are different, encompassing institutional, organisational and personal challenges. They are dependent and independent of each other. Among the organisational challenges independent of the researchers is, for example, the employment policy of the university. There are instances where the number of doctoral students exceeds the number of available full-time positions at the university. This results in a situation where not everyone who defends their doctoral thesis can find employment. When doctoral graduates fail to secure academic posts, their job search often begins only after the dissertation defense. Employers outside academia often undervalue PhD experience and consider research skills misaligned with market needs. Given their advanced qualifications, early-career researchers seek employment that is intellectually stimulating, offers opportunities for professional growth, and provides adequate financial compensation. PhD students form a demanding and specific target group for career advisory services. This is attributable to their advanced qualifications, multifaceted professional requirements, and elevated expectations concerning their future career trajectories. Career development in academia is a key component of institutional policy and aligns with the principles of the European Charter for Researchers. A supportive professional environment at all career stages shapes researchers' choices and strengthens the R&D sector. *(...) Employers and funders should ensure, either in the institutions concerned or through collaboration with other structures, accessible and up-to-date career guidance and job placement assistance providing information, guidance and support for career development both within and beyond the institution concerned. This should be offered to researchers at all stages of their careers, regardless of their contractual situation*. (The European Charter for Researchers, 2023 p.27). This document emphasizes the importance and necessity of career guidance and support, especially for young scientists and doctoral students. Not every doctoral graduate will have the opportunity to take up a position at a university after obtaining a doctoral degree. The charter emphasizes the importance of professional advising among researchers. Thanks to the guidelines, we can maximize the potential of researchers at every stage of their careers, both at university and beyond. (...) *Researchers at all career stages should seek proactively and be given opportunities by their employer/funder to continually improve themselves by regularly updating and expanding their skills and competencies. This may be achieved by a variety of means including, but not restricted to, formal training, workshops, conferences and e-learning or collaboration within a team and the respective networks. Particular attention should be paid to the training of First Stage Researchers (R1), the majority of whom are PhD candidates at the beginning of their research career* (The European Charter for Researchers, 2023, p.28). Comprehensive support mechanisms enable researchers to prepare for potential

transitions to non-academic labour markets. In this context, the systematic development of transferable skills is of critical importance. As an educational and research institution, the university possesses the resources and infrastructure necessary to facilitate the acquisition and enhancement of such competencies (Wawrzonek, 2025). Many doctoral candidates, particularly during the early stages of their doctoral studies, require a structured development plan, as highlighted in the research by Meuleners et al. (2023) and Horta et al. (2010). According to British research findings most candidates enter the doctorate with only vague career goals (Turner, 2015). Among the barriers and difficulties that doctoral-level students may encounter are:

- limited knowledge of job opportunities
- lack of knowledge of the non-academic labour market
- limited experience in the non-academic labour market
- limited self-presentation skills
- limited networking opportunities (underutilization of the potential that arises from belonging to a doctoral school)
- unawareness of available support services
- lack of experienced and well-prepared career advisors for early-career researchers

The barriers and constraints encountered by doctoral candidates significantly delineate the scope of their needs, thereby shaping the specific forms of intervention required by this distinct group of beneficiaries. Preliminary analyses highlight five main areas in which young researchers require career-oriented assistance and professional guidance: clarifying career pathways both within and beyond academia, developing soft and management skills, increasing awareness of opportunities for research commercialization and employment outside the academic sector, enhancing motivation to pursue and complete doctoral studies, and building a professional image and expert reputation to increase visibility and recognition in the job market.

One of the most significant challenges continues to be effectively disseminating information about available support services to doctoral students. The reform of doctoral education in Poland resulted in the institutional separation of doctoral schools from university faculties, granting them the status of independent organisational units. Awareness of academic career counselling services among students and doctoral candidates varies widely: while some individuals actively utilize the resources provided by Career Services Offices, others remain unaware of their existence. This pattern is also evident among doctoral candidates, as those who did not engage with career planning at earlier stages of their education may similarly overlook such opportunities during their doctoral training.

Tools, methods and potential effectiveness of support in ACOs

European universities have provided career guidance for PhD students for nearly two decades. The Careers Service at the University of Cambridge provides specialized support for doctoral candidates, assisting them in planning their career trajectories both within and beyond academia (Careers Service, University of Cambridge, 2025). Similarly, the University of Zurich offers career counselling tailored to the needs of PhD students, focusing on both career planning and skills development (Graduate Research Center, University of Zurich, 2025). Comparable services are available at institutions such as Heidelberg University (Graduate Academy, Heidelberg University, 2025) and Utrecht University (Utrecht University, 2025). Many universities

offer professional development through coaching, mentoring, and tutoring. Such initiatives foster both professional growth and stronger ties with the academic community. Leading European universities, such as the University of Gothenburg, offer comprehensive support programs for doctoral students that focus on academic and proposal writing, well-being, and career planning, as well as peer networking through initiatives like PhD cafés (University of Gothenburg, 2025). Karolinska Institute provides doctoral candidates with a broad range of resources, including career-oriented assistance, skills development workshops, and access to international job platforms and networks such as EURAXESS and Crowd helix, to facilitate both academic and non-academic career paths (Karolinska Institute, 2024). At the University of Osnabrück, the "Career direct" program delivers tailored guidance for PhD students and postdocs, supporting professional orientation, individual coaching, networking opportunities, and self-marketing strategies, all of which are designed to ease transitions within and beyond academia (University of Osnabrück, 2025).

To complement the examples from European universities, the Table 2 outlines how Academic Career Offices at leading Polish institutions address the career development needs of doctoral students, highlighting similarities, distinctive approaches, and areas for improvement.

The most used tools and methods in working with early-stage researchers, employed by career offices and other units empowering the development of both academic and non-academic career paths, include:

- interview simulations
- knowledge pills/ knowledge nuggets
- individual career counselling (vocational advising)
- training and workshops
- collaboration with industry and NGOs
- online platforms and tools (e.g., LinkedIn, VR goggles)
- internship and grant programs for PhD students

Evaluating the effectiveness of support initiatives is essential. Effective career guidance fosters motivation for lifelong learning, facilitates informed career decision-making, and helps prevent professional missteps and career-related frustration. The quality and effectiveness are significantly influenced by a thoroughly conducted needs assessment of participants, as well as by systematic and context-appropriate evaluation of implemented activities, which enable their optimization and adaptation to the evolving conditions of the labour market. In order to comprehensively assess the results of support tools provided by Academic Career Offices (ACOs), it is recommended to implement a multi-dimensional evaluation framework that incorporates both quantitative and qualitative indicators, including the percentage of doctoral graduates securing employment within a specified period after graduation, the average time to obtain a first job, and levels of satisfaction with ACO services, as well as to conduct regular follow-up surveys and satisfaction analyses among doctoral students and alumni (Hanover Research, 2019).

Table 2
Comparison of Career Counselling Services - Selected Polish Universities

University	Offer	Examples	Comments, limitations,
Adam Mickiewicz University	On-site or online consultations; webinars	Application documents, FRIS® analysis, career path planning, promotion of academic achievements	The offer clearly mentions doctoral students
University of Warsaw	Individual consultations; thematic workshops;	Competence analysis, application documents, interview simulations, career development workshops	Very extensive offer; sometimes no explicit divisions for doctoral students only
Gdańsk University of Technology	Individual consultations; project mentoring; workshops	Academic and non-academic career planning, application documents, elements of entrepreneurship	Offer dedicated to "young scientists"
AGH University of Science and Technology	Career consultations; workshops; doctoral community initiatives	Career counselling, preparation for the labour market, seminars for doctoral students	No widely published training cycles exclusively for doctoral students
Warsaw University of Technology	Individual consultations; regular workshops	Application documents, competency tests, mentoring, coaching	Offer for students/graduates with access for doctoral students; no separate cycles for doctoral students
Jagiellonian University	Consultations; workshops; mentoring meetings	International counselling, professional training, mentoring	Offer for students/graduates; not always specified only for doctoral students
University of Wrocław	Individual consultations: webinars/workshops organised; course "Your future skills"	Soft skills training, coaching, application document consultations, recruitment, adaptation courses	Relatively wide range of services, already including doctoral students
University of Gdańsk	Consultations with a career advisor; free training; job fairs	Preparation of application documents, professional training, database of job/internship offers	No clear data on whether the activities are specifically dedicated to doctoral students
Silesian University of Technology	Consultations	Engineering Job and Entrepreneurship Fair, document consulting, support for doctoral student	Offer known in general terms; no details on training cycles exclusively for doctoral students
Warsaw Medical University	Registration for consultations; workshops and meetings;	Application documents, industry training, career planning support coaching and counselling	No clear information that the offer is aimed exclusively at doctoral students

Note. The analysis is based on information available on the websites of the Career Services offices of the selected universities (as of 2025).

For academic career offices to reach PhD-level researchers more effectively, it is recommended to employ personalized communication channels, such as dedicated university platforms, social media, and precisely formulated email messages, which enhance the efficiency of information delivery and engage recipients. Strengthening collaboration with academic staff, particularly supervisors, who play a key role in informing doctoral candidates about available professional development services, is also essential to increase interest and trust in Academic

Career Offices. Integrating career guidance within doctoral education programs, by incorporating modules on soft skills development and career planning directly into the curriculum, improves the accessibility and perceived value of the offered services. It is recommended to strengthen the role of supervisors in informing doctoral candidates about available career services and to integrate career guidance into the curriculum. Supervisors should be encouraged to discuss career pathway development with their students and to refer them to career offices for tailored support. Moreover, flexible scheduling and formats of activities, such as organizing workshops or consultations during evenings or weekends, increase their participation and engagement. Equally important is the development of digital platforms with educational resources that provide access to training materials, guides, and online consultations on demand, thereby facilitating autonomous professional development. Fostering a career-oriented culture at the university through systematic information campaigns and showcasing positive examples of alumni serves as an effective tool to motivate doctoral students to utilize career office services, while simultaneously strengthening their sense of belonging and engagement. Finally, individualizing assistance through personalized counselling sessions and mentoring programs allows for better adaptation of assistance to the unique needs and professional aspirations of doctoral candidates.

6 Limitations of the Study

This study is subject to several limitations. Firstly, the scope of the analysis is confined exclusively to Polish academic institutions and sources, specifically focusing on the role of Academic Career Offices within Poland. European framework is cited for context but is not the study's main focus. Therefore, the findings and conclusions are geographically specific and may not be fully generalizable to other national contexts. Relying on public documents and websites limits the depth of the study. Future research could expand this scope by incorporating empirical data and comparative analyses within a broader European framework to enhance understanding of doctoral support mechanisms.

7 Conclusions and Recommendations

A majority of European universities actively support doctoral candidates' career development by offering comprehensive training in transferable skills, promoting interdisciplinary research, and facilitating career opportunities both within academia and beyond, acknowledging that most doctoral graduates pursue professional careers outside academia (Marti, S., & Peneoasu, A.-M., 2025). An analysis of training and development expectations among doctoral students is also conducted at many universities (Rivas, 2024). Leading Western European universities provide specialized professional development services programs for doctoral candidates, including needs assessment, tailored career counselling, collaboration with the non-academic sector, and sharing of best practices, thereby empowering graduates to pursue careers both within and outside academia**.** Supervisors and doctoral schools also play a crucial role in enhancing the efficacy of career empowerment initiatives. They should actively help interns identify available support tools and integrate career counselling into the educational process. It is also recommended to incorporate career development components into doctoral school curricula systematically. Career counselling is crucial for doctoral candidates. In a dynamic labour market, PhD graduates must remain flexible and open to diverse career paths. Doctoral students often lack knowledge of non-academic careers and struggle to present their competencies. Ca-

reer counselling helps PhD graduates identify skills, set goals, and prepare for recruitment inside and outside academia. Career counselling helps PhD researchers develop transferable skills valued across different sectors. Regular counselling and mentoring build networks, make career decisions, and increase job satisfaction.

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Biographical notes

Dr Magdalena Barańska, PhD, Adam Mickiewicz University, Faculty of Educational Studies, Department of Continuing Education and Vocational Counselling, Careers Service UAM. Researcher in the areas of career guidance for doctoral students, labour market, university and higher education.

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