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# Precarity of early career researchers (postdocs):

Summary of practices from selected European universities



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## Background and scope

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The purpose of this brief is to report on the job conditions of postdocs – a key stage in a researcher’s career. This brief reports on differences between countries, identifies similarities and allows readers to consider whether any of the initiatives mentioned could help promote progress in other institutions. We have focused on the perspectives of five different institutions in four European countries: Freie Universität Berlin, Germany; Universiteit Leiden, Netherlands; ETH Zürich, Switzerland; the University of Edinburgh, United Kingdom (UK) and; the University of Cambridge, UK.

Postdoctoral researchers commonly face challenging working conditions including short, fixed-term contracts or casualised working arrangements, low pay, and stiff competition to continue working in their fields of expertise (OECD, 2021). These conditions can result in researchers suffering high stress and having poor mental health, which is harmful to the individual and to the sector’s ability to produce high-quality research (Wellcome, 2020; University and College Union (UCU), 2024).

This environment makes research jobs less desirable to work in, which discourages people from training as researchers. Countries with precarious working conditions/policies may become less attractive for researchers to work in than countries with policies in place that reduce precarity or its harmful effects. These conditions can also put disproportionate pressure on researchers of certain backgrounds, for example those who cannot work full-time or need to take a leave of absence (including maternity and other forms of parental leave) and researchers who are not from wealthy backgrounds (OECD, 2021).

There has been discussion about how more diverse teams can produce more innovative research (Gewin, 2018; Ruzycki and Ahmed, 2022; Yang et al., 2022), and furthermore, universities have a legal responsibility to not systematically exclude researchers of certain backgrounds. So long as precarity is a major feature of research careers it will be much harder to address problems of equity, diversity and inclusion (EDI).

Research is an internationally mobile sector – researchers frequently visit and take up jobs in other countries to collaborate with experts around the world (UKRI, 2022). Countries and institutions that do not address issues of precarity will miss out on being able to attract a diverse range of talented researchers. Furthermore, the global nature of the research labour market means that any innovations instituted in one country to improve how precarity is handled need to be understandable to researcher applicants around the world if the innovations are to be successful in reaching a diverse pool of applicants.

Each country may have different perspectives on these issues. For example, is precarity a key concern for institutional leaders in different countries? What aspects specifically are concerning? Which arguments for addressing precarity does each country find most compelling?

This information was collected as part of the Action Research on Research Culture (ARRC) project at the University of Cambridge. ARRC is an international collaboration investigating how changing the recruitment, development and retention of researchers could improve research culture.

In Germany, early career researchers are on fixed-term contracts governed by the Act on Fixed-Term Employment Contracts in Academia (WissZeitVG) where researchers are employed by and funded directly through a university or research institute. It is also possible to be a postdoc on a project grant, fellowship, or other form of third-party funding. While these are also by definition fixed-term positions, these roles are not governed by the WissZeitVG (BMBF, 2023).

Short-term contracts result in a need for researchers to frequently change institutions. Activists, including Amrei Bahr, co-founder of the #ichbinhanna movement (Brasch and Temmen, 2021), highlight the challenges this raises, particularly in a large country like Germany, where early career researchers already have a home in one city but then feel they are forced to commute long distances for example, a nine-month contract on the other side of the country (Bahr, 2023).

At FUB there are three types of postdoc contracts:

- Fixed-term contracts funded by the university.
- Third-party funded projects with a fixed-term contract (the term often corresponds to the duration of the project).
- Permanent positions. These fulfil specific functions in research, e.g. lab supervisors or lab-machine-scientists.

In 2022, there were 621 postdocs at FUB on fixed-term contracts, 282 (45%) of whom were female.

## What issues does precarity cause?

FUB sees several advantages of employing researchers on fixed-term contracts: more flexibility for the university to establish new fields of research, needs-based support of collaborative research projects through the tailor-made selection of researchers for the respective funding phase, and

flexibility in the acquisition and implementation of third-party funded projects.

Additionally, it says fixed-term contracts cause the circulation of researchers so that positions regularly open to new PhD graduates. Graduates need such positions to progress to a permanent academic position.

FUB sees precarity as leading to problems in retaining women for senior positions. Precarity also puts FUB at a disadvantage when competing with the private sector for early career researchers because the private sector can offer more attractive pay and conditions.

The issues postdocs at FUB have raised during counselling sessions are pressure to perform, high workload and, in some cases, abuse of power, which may all be linked to the precarious nature of fixed-term contracts.

Short-term contracts also cause a high workload in the Human Resources (HR) division as contracts need to be renewed frequently on very short notice. Because the livelihoods of postdocs and their families are at stake, this is stressful for both the postdocs and the administrative staff.

## Initiatives to address precarity

In the Biology, Chemistry and Pharmacy department at FUB, the remit of its Graduate Centre will be extended to address the postdoc level. In addition to counselling services, information or training on topics such as career planning and networking will be available.

FUB has made a voluntary commitment to ensure that the duration of initial contracts for postdocs is no shorter than two years using their own budget funds. This rule is largely adhered to, however, some externally funded positions may only last a few months.

A coalition of Dutch public knowledge institutions and funders of research runs a Recognition and Rewards (R&R) programme (Recognition & Rewards programme, 2024). R&R seeks to mitigate the negative effect traditional, bibliometric measures of academic success have on the outputs that are valued and the diversity of representation and career paths in academia.

In 2022, at Leiden University, 361 postdocs were employed, 233 of whom came from abroad.

Postdocs in the Netherlands are not registered as such; the Dutch Universities Job classification system (Universiteiten van Nederland, 2023) only recognises the job title ‘researcher’ of which approximately 80% could be classified as postdocs (due to the temporary nature of their contracts).

Most postdocs start with a one-year contract, which can then be extended to a maximum of four years. Sometimes contracts are fixed for two years. Due to the collective labour agreement (Universities of the Netherlands, 2023a), a fixed-term contract can only be for four years and temporary contracts can only be given three times (after that researchers must obtain a permanent contract).

## What issues does precarity cause?

Precarity creates a situation where due to work and time pressure there is limited time left for the University to offer additional postdoc training and development that would be valuable for developing a career outside academia. Leiden also fears that when it focuses on creating space for postdocs to work towards a career outside of academia, it sends a message to postdocs that the University doesn’t value them. This is not the case but there are simply not enough permanent positions available to accommodate everyone who would like one.

According to a survey at Leiden (LUPA, 2021), issues that concern its postdocs are high work pressure, pressure to publish their research and apply for the next grant, lack of academic career prospects, lack of support in their career and lack of work/life balance.

The main issue for postdocs when seeking a position is the insecure, short-term nature of contracts, as exemplified in an article in the Leiden weekly magazine: *“Ideally, I would love to stay in academia like many of my colleagues but I am not willing to spend the next decade as an academic nomad. Furthermore, if I am being honest with myself such a plan is unrealistic as I like many other recent PhDs have a spouse with a job and school-age children. Mobility is certainly on the table but not for a two-year contract with no prospect of a permanent position afterwards”* (Goldstein-Sabbah, 2019).

## Initiatives to address precarity

Within the R&R programme, Leiden focuses on three points (put forward by the postdocs themselves):

1. Offer postdocs the opportunity to develop their professional skills in open science, leadership, writing skills, science communication, public outreach, citizen science, career development, project management and policy making. Leiden believes this will help stimulate the diverse workforce needed in academia and prepare postdocs for a job outside academia.
2. Support postdocs in publishing their articles and data in open access journals. It will do this through training, infrastructure and financing.
3. Offer contract extensions if postdocs take on tasks in addition to their research – for example teaching, science communication, representation, public outreach or policymaking.

In 2020, petitions were submitted to the Swiss Federal Assembly (Petition Academia, 2022) to:

- Take concrete measures that compel higher education institutions to create a significant number of permanent positions for postdoctoral researchers.
- Conduct research into the issues of precarity and equal opportunity at Swiss universities.

In 2022, the National Council voted to support these demands. A Swiss Science Council (SSC) report seeks to understand the optimum number and organisation of postdocs across the country (SSC, 2022). The report emphasises that the sector cannot create enough permanent jobs in higher education to meet applicants' demands and some discontent around that is understandable. Equally, the SSC considers it a waste to society for researchers to spend too long at the postdoc stage waiting for an academic job opportunity that will not come when these researchers could be fruitfully taking their skills into other sectors.

SSC is therefore clear that the answer is neither to limit PhD admissions nor expand permanent academic jobs, so alternatives must be developed.

The SSC report offers a number of recommendations, which facilitate the transition between PhD or postdoc and non-academic roles. The SSC also recommends making it easier for non-Swiss nationals who have completed a PhD or postdoc in Switzerland to stay in the country. There is possible scope for some (but not all) assistant researcher roles to be converted to permanent positions.

In 2023, there were about 1,300 postdocs employed at ETH Zürich, of whom 36% were women and 92% were from abroad.

A typical fixed-term contract is for one year. A researcher can be employed as a postdoc for a maximum of six years; after that, promotion to 'established researcher' is necessary. This position is also for a maximum of six years. The average stay of a postdoc at ETH Zürich is about two and a half years.

### **What issues does precarity cause?**

ETH Zürich sees mobility as a criterion for success in an academic career; an internal career path is not the goal and is not supported. It highly values the principle of rotating appointments in academia and therefore applies fixed-term appointments for scientific functions.

ETH Zürich does not view this turnover of researchers as causing any issues for the University. Researchers with specific essential expertise can be offered permanent contracts. In 2023, ETH Zürich employed around 300 permanent scientific staff, called senior scientists. The high turnover is seen as positive for researchers because they have the chance to develop skills and benefit from the research environment. The University benefits from the constant influx of talented researchers who bring in their ideas and expertise before they move on to more senior positions. ETH Zürich is aware, however, that for the researchers these short-term contracts can be difficult for various reasons and tries to offer as much as support as possible.

### Initiatives to address precarity

While ETH Zürich embraces the system of short-term contracts and sees it as being advantageous to the University, it acknowledges that this clashes with the perspective of researchers for whom it leads to a lack of secure employment. The University has, therefore, put measures in place to improve the situation of postdocs where possible.

Measures being taken include making full-time hours contracts standard for postdocs. Postdocs can only be employed on a part-time basis if they wish to be and there is a good reason, for example,

for childcare or other jobs. Postdoc contracts are automatically extended for the duration of maternity and paternity leave.

Postdocs have an annual career development review facilitated by their supervisor. In 2021, the ETH Zürich career centre began an additional focus on postdocs and the University's first postdoc career week was held.



The UK government and UK Research and Innovation (UKRI) – the UK public body responsible for distributing funding – have stated an intent to address precarity by tackling the issues of skills shortages, narrow career paths in research and development, and the variable quality of leadership practice (UK Government, 2021).

They have proposed and consulted on developing a New Deal for post-graduate research students (UKRI, 2023), which *“will address the issues that contribute to precarity in early careers, and prepare students for rewarding careers across the whole economy.”* Although they acknowledge that the project-based funding system *“may play a significant role”* in creating the conditions for precarity, there is no indication that this system will be changed. Instead, solutions proposed include providing training and support for moves into industry and the third sector, supporting interdisciplinary research, and reviewing the way funding for projects is provided to universities to identify the pressures faced by research staff.

There are three types of academic researcher contract (grades UE07–UE08) at Edinburgh:

- Fixed-term (currently 1128 staff members)
- Open-ended with a review date (currently 329 staff members)
- Open-ended (currently 59 staff members)

Precise definitions of these terms are being considered internally, but in general terms, ‘open-ended with a review date’ refers to posts that are externally funded, whereas ‘open-ended’ refers to core funded posts. There is not a single role name for these posts, but they are generally identified as ‘postdocs’ at the University and the term is used for all communications and access to support (such as researcher development).

## What issues does precarity cause?

Fixed-term contracts create a flow of opportunities for new postdocs due to the turnover of researchers, which Edinburgh views as an advantage.

On the other hand, due to the insecure nature of fixed-term contracts, many postdocs look for other opportunities before their contracts end and often leave the University, leading to the loss of skills and the difficulty of completing projects.

The personal impact of precarity on Edinburgh postdocs is the uncertainty that undermines the opportunity for researchers to make financial and life decisions (buying a house, starting a family). This impacts more on women than men as they are less likely or able to move because of family.

Precarity also impacts on disabled researchers who often have significant medical infrastructure in place (support workers, adapted accommodation, access to mental health support). If those researchers have to regularly change location due to short-term contracts, they may have to build up this infrastructure from scratch in their new location. This could impact their mental health and financial situation which may discourage them from pursuing a research career.

While Edinburgh doesn’t have evidence of this at the University, it can be assumed that, in the wider sector, the lack of security can be a negative factor in the power relationships between postdocs and Principal Investigators (PI). PIs may exploit postdocs with the promise of security in return for focus on the project at the expense of their career development.



## Initiatives to address precarity

Edinburgh has conducted an in-depth internal review of staff on fixed-term contracts to identify strategies to address precarity and limit the numbers of staff on such contracts. The review related to negotiations with unions, so making it publicly available is not appropriate, but the key developments were to:

1. Ensure the contracts of all staff with eight years' or more service are reviewed and changed to open-ended contracts.
2. Continuously review when staff reach five years' service to avoid them being on successive fixed-term contracts in the long term.
3. Address an unintended issue which excluded staff with more than two years' service from the University's redeployment register. (A redeployment register is a record of employees whose jobs are at risk or whose contracts are coming to an end so that they can be considered for other vacant roles at the same university.)

There are over 4,000 postdocs at Cambridge, making them the University's largest staff group. Typically, about 1,000 of these start a new post each year.

Almost 3,000 of the postdocs at Cambridge are employed directly by the University. In addition, there are an estimated 200 postdocs employed by the Colleges, around 600 postdocs employed by the University Partner Institutes, and approximately 200 postdocs at Cambridge on visiting researcher arrangements.

Cambridge postdocs currently represent 96 different nationalities, although over a third (36%) are from the UK. Of the current postdocs, 57% identify as male and 43% as female. 57% identify as white, 30% identify as ethnic minority and 13% are undeclared.

Most postdocs are hired to work on grant funded projects awarded to academics. These projects typically last about three years. However, projects can be extended, and candidates can leave posts early, so positions may need to be backfilled for less than a full three to five year 'term'. These projects are mostly in science, technology, engineering and mathematics (STEM) and clinical medicine disciplines. A smaller proportion of postdocs are in arts, humanities and social sciences (AHSS) disciplines. The majority of these postdocs are independent fellows, typically for a fixed term of three years.

There are also postdoc positions – generally referred to as Junior Research Fellows – within each of Cambridge's 31 Colleges, which each provide teaching and community services to students and Fellows from all disciplines. Postdocs can have sole or joint posts within one of the colleges.

Postdocs at Cambridge rarely have teaching requirements stipulated in their contract, but there

are often a wide range of opportunities for hourly-paid and/or part-time teaching and pastoral roles which an individual postdoc may pick up. The type and volume of such opportunities varies significantly by discipline.

## What issues does precarity cause?

The university's view is that it is important to address issues around precarity, which fall under the scope of research culture: *"We want our research culture to be the very best it can be, because we know that a good culture will attract the best researchers, and in looking after those researchers, we empower them to do their best work."*

Cambridge recognises that problems in research culture impact postdocs more heavily because they are most likely to be employed on fixed-term contracts and endure intense competition for permanent posts (University of Cambridge, 2021).

## Initiatives to address precarity

The University of Cambridge has identified precarity as one of its four priority areas within its Developing Research Culture strategy (2024). The negative effects created by fixed-term contracts are one of the biggest issues raised by the research community in discussions around barriers to a positive research culture. The Research Culture Steering Committee acknowledges that the Institution has a responsibility to act in a way to mitigate these. Work is ongoing to develop activity under this priority area and might include, for example, considering bridging contracts or roving researcher models.

The Postdoc Academy, launched in 2013 as the Office of Postdoctoral Affairs, is an organisation within the University that supports the professional and career development of postdocs, for example, by delivering bespoke training, mentoring and networking opportunities (University of Cambridge,

2024). The Postdoc Academy encourages and celebrates career moves outside academic research to break the old stigma that these kinds of professional moves are the result of ‘failure’.

The University redeployment policy allows staff coming to the end of a fixed-term contract to be flagged and prioritised when they apply for other positions within the University. This helps save institutional knowledge and saves on on-boarding costs and time on induction for new employees.

The policy would most likely be used for a transition from a research role to a professional services/ research support role for candidates who would like to stay at Cambridge. It is unlikely to be useful for candidates who want to continue in a research role.

The ARRC project is conducting experiments to better understand what job characteristics are of most importance to postdocs for their next jobs (e.g., location, pay and benefits, continuing in a research role, reputation of the employer, etc.). This research will help determine the possible scope of redeployment plans to alleviate some precarity and identify situations where redeployment is less appropriate.

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## Similarities

- There is recognition at the national level in all four countries that precarity is a problem for researchers.
- Universities see the advantages of researcher mobility while also wanting to mitigate the disadvantages of precarity to institutions and individuals.
- The impacts of precarity on individual postdocs are viewed similarly across all four countries.

## Differences

- ETH Zürich strongly values the benefits that researcher mobility brings to the University and sees fixed-term contracts as a necessary aspect of this.
- The University of Cambridge is conducting research to determine what aspects of employment are a priority for postdocs in an effort to address precarity.

## Conclusion

All of the selected universities acknowledge the effects of precarity on individuals – including high workload, pressure to publish and apply for funding, lack of support and poor work/life balance – and have introduced measures intended to reduce or mitigate those effects. Because postdoc positions are funded with ‘temporary’ money, most initiatives to address precarity take the form of training and support for postdocs to navigate the current system of fixed-term contracts or find a role in the commercial sector.

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# References

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- Amrhein, V. (2014) *The invisible achievers*, Swiss National Science Foundation (SNSF). Available at: <https://www.snf.ch/en/z60enPPASJBbn6ED/news/undefined/en/z60enPPASJBbn6ED/news/news-140902-horizons-invisible-achievers> (Accessed: 7 April 2024).
- Bahr, A. (2023) 'Das einzig Beständige sind die Ortswechsel', *Arbeit in der Wissenschaft*, 7 March. Available at: [https://arbeitinderwissenschaft.substack.com/p/das-einzig-bestandige-sind-die-ortswechsel?utm\\_medium=email](https://arbeitinderwissenschaft.substack.com/p/das-einzig-bestandige-sind-die-ortswechsel?utm_medium=email) (Accessed: 8 March 2024).
- BMBF (2023) *Wissenschaftszeitvertragsgesetz - BMBF, Bundesministerium für Bildung und Forschung - BMBF*. Available at: [https://www.bmbf.de/bmbf/de/forschung/wissenschaftlicher-nachwuchs/wissenschaftszeitvertragsgesetz/wissenschaftszeitvertragsgesetz\\_node.html](https://www.bmbf.de/bmbf/de/forschung/wissenschaftlicher-nachwuchs/wissenschaftszeitvertragsgesetz/wissenschaftszeitvertragsgesetz_node.html) (Accessed: 8 March 2024).
- Brasch, I. and Temmen, J. (2021) 'IchBinHanna', *#IchBinHanna*, 1 July. Available at: <https://ichbinhanna.wordpress.com/english-version/> (Accessed: 5 April 2024).
- Federal Ministry of Education and Research (2016) *The Tenure-Track Programme*. Available at: <https://www.tenuretrack.de/en/the-tenure-track-programme> (Accessed: 7 April 2024).
- Fink, A., Hirschi, C., Hirt, M., Paszkowski, U., Mayer, I. and Maeder, P. (2012) *Vision 2020*. Available at: <https://www.netzwerk-future.ch/data/Prise%20de%20position%20jeunes%20chercheurs.pdf>.
- Gewin, V. (2018) 'Why diversity helps to produce stronger research', *Nature*, pp. d41586-018-07415-9. Available at: <https://doi.org/10.1038/d41586-018-07415-9>.
- Goldstein-Sabbah, S. (2019) 'Postdoc life... the dream is over, now reality sets in', *Mare Online*. Available at: <https://www.mareonline.nl/en/background/postdoc-life-the-dream-is-over-now-reality-sets-in/> (Accessed: 8 March 2024).
- Leiden University Postdoc Assembly (2021) *LUPA - Mission*. Available at: <https://sites.google.com/view/lu-postdoc-assembly/mission> (Accessed: 24 April 2024).
- OECD (2021) *Reducing the precarity of academic research careers*. OECD Science, Technology and Industry Policy Papers 113. Available at: <https://doi.org/10.1787/0f8bd468-en>.
- Petition Academia (2022) *Campaign Website Petition Academia*, *Campaign Website Petition Academia*. Available at: <https://campaign.petition-academia.ch/> (Accessed: 8 March 2024).
- Recognition & Rewards programme* (2024) *Recognition & Rewards*. Available at: <https://recognitionrewards.nl/> (Accessed: 8 March 2024).
- Roberts, G. (2002) *SET for success*. Available at: [https://webarchive.nationalarchives.gov.uk/ukgwa+/http://www.hm-treasury.gov.uk/d/robertsreview\\_introch1.pdf](https://webarchive.nationalarchives.gov.uk/ukgwa+/http://www.hm-treasury.gov.uk/d/robertsreview_introch1.pdf) (Accessed: 4 July 2024).
- Ruzycki, S.M. and Ahmed, S.B. (2022) 'Equity, diversity and inclusion are foundational research skills', *Nature Human Behaviour*, 6(7), pp. 910-912. Available at: <https://doi.org/10.1038/s41562-022-01406-7>.

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SERI (2014) *Massnahmen zur Förderung des wissenschaftlichen Nachwuchses in der Schweiz*. Available at: <https://www.sbf.admin.ch/sbf/de/home/dienstleistungen/publikationen/publikationen-bestellen/wissenschaftlicher-nachwuchs.html> (Accessed: 7 April 2024).

Swiss Science Council (SSC) (2022) *Les postdoctorants au sein des hautes écoles suisses: Constats et recommandations du Conseil suisse de la science (Postdocs within Swiss universities: Findings and recommendations of the Swiss Science Council)*. CSS 2/ 2022. Bern, p. 56. Available at: <https://wissenschaftratsrat.ch/en/programme/appropriate-size-and-organisation-of-the-swiss-eri-system> (Accessed: 18 April 2023).

The Russell Group (2021) *Realising our potential, The Russell Group*. Available at: <https://russellgroup.ac.uk/news/realising-our-potential-backing-talent-and-strengthening-uk-research-culture-and-environment/> (Accessed: 7 April 2024).

UK Government (2021) *Research and development (R&D) people and culture strategy, GOV.UK*. Available at: <https://www.gov.uk/government/publications/research-and-development-rd-people-and-culture-strategy> (Accessed: 8 March 2024).

UKRI (2022) *Global mobility of research personnel*. UKRI. Available at: <https://www.discover.ukri.org/global-mobility-evidence-report-22/> (Accessed: 3 August 2024).

UKRI (2023) *New deal for postgraduate research*. Available at: <https://www.ukri.org/what-we-do/developing-people-and-skills/new-deal-for-postgraduate-research/> (Accessed: 5 April 2024).

Universities of the Netherlands (2023a) *Collective Labour Agreement of Dutch Universities | Universiteiten van Nederland*. Available at: <https://www.universiteitenvannederland.nl/en/collective-labour-agreement-of-dutch-universities> (Accessed: 8 March 2024).

Universities of the Netherlands (2023b) *Job classification system (UFO) | Universiteiten van Nederland*. Available at: <https://www.universiteitenvannederland.nl/en/job-classification-system-ufo> (Accessed: 8 March 2024).

Universities UK (2008) *The concordat to support the career development of researchers*. Available at: <https://researcherdevelopmentconcordat.ac.uk/about/> (Accessed: 7 April 2024).

University of Cambridge (2021) 'Research culture institutional action plan'. Available at: [https://www.postdocacademy.cam.ac.uk/files/research\\_culture\\_action\\_plan\\_2021.pdf](https://www.postdocacademy.cam.ac.uk/files/research_culture_action_plan_2021.pdf).

University of Cambridge (2024) *Postdoc Academy*. Available at: <https://www.postdocacademy.cam.ac.uk/> (Accessed: 8 March 2024).

Vitae (2010a) *About the Vitae Researcher Development Framework — Vitae Website*. Available at: <https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework> (Accessed: 7 April 2024).

Vitae (2010b) *The Vitae Researcher Development Statement — Vitae Website*. Available at: <https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework/the-vitae-researcher-development-statement> (Accessed: 7 April 2024).

VSNU, NFU, KNAW, NWO and ZonMw (2019) *Position paper - Room for everyone's talent, Recognition & Rewards*. Available at: <https://recognitionrewards.nl/about/position-paper/> (Accessed: 7 April 2024).

Wellcome (2020) *What researchers think about the culture they work in, Wellcome*. Available at: <https://wellcome.org/reports/what-researchers-think-about-research-culture> (Accessed: 7 April 2024).

Yang, Y. *et al.* (2022) 'Gender-diverse teams produce more novel and higher-impact scientific ideas', *Proceedings of the National Academy of Sciences*, 119(36), p. e2200841119. Available at: <https://www.pnas.org/doi/full/10.1073/pnas.2200841119>.

# Timeline

	Germany	Netherlands	Switzerland	United Kingdom
2002				UK government publishes the “SET for Success” report (Roberts, 2002), containing the first set of recommendations on career development opportunities for researchers in researchers in science, engineering and technology (SET).
2007	The WissZeitVG (academic contract law) introduced (BMBF, 2023).			
2008				Universities UK publishes “Concordat to Support Career Development of Researchers”(Universities UK, 2008).
2010				Vitae launches its “Researcher Development Framework” (Vitae, 2010a) and “Researcher Development Statement” (Vitae, 2010b).
2012			Vision 2020 position paper submitted to the Swiss Parliament by a group of young academics (Fink <i>et al.</i> , 2014).	
2013				University of Cambridge launches its Office of Postdoctoral Affairs, later rebranded as the Postdoc Academy (University of Cambridge, 2024).
2014			As a result of Vision 2020, SERI conducted research on the current state of affairs in the higher education sector including understanding working conditions and statistics on gender, nationality and hierarchical level of the workforce (SERI, 2014).	
2016	Tenure-track pilot programme introduced (Federal Ministry of Education and Research, 2016). 1,000 permanent junior professor positions across 86 universities will be introduced supported by federal government funds, with additional contributions provided by state governments and universities. The programme will run for 15 years.			



# Timeline

	Germany	Netherlands	Switzerland	United Kingdom
2019		<p>Knowledge institutions and science funding bodies publish the position paper “Room for everyone’s talent”: “to create more balance in the way we recognise and reward researchers” (VSNU <i>et al.</i>, 2019).</p> <p>The proposals are being implemented in the Recognition and Rewards (R&amp;R) programme.</p>		Universities UK publishes its Researcher Development Concordat; an updated version of the 2008 Concordat.
2020	<p>The #ichbinhanna debate goes viral on German social media (Brasch and Temmen, 2021). The debate is a backlash to a video produced by the BMBF following a young biologist named Hanna and explains how her fixed-term contract is good for the science sector. It portrays the WissZeitVG as a positive restriction with no negative consequences.</p>		Two petitions are submitted to the Federal Assembly calling for more stable working conditions and longer-term contracts for postdoctoral researchers (Petition Academia, 2022).	Wellcome publishes its report: “What researchers think about the culture they work in” (Wellcome, 2020).
2021	<p>The state government of Berlin issues legislation to try and limit the use of fixed-term contracts but does not offer additional funds to underwrite more permanent contracts.</p>		ETH Zürich holds its first postdoc careers week.	<p>The Russell Group publish: “Realising our potential: backing talent and strengthening UK research culture and environment” (The Russell Group, 2021).</p> <p>UK government publishes its “Research and development (R&amp;D) people and culture strategy” policy paper (UK Government, 2021).</p> <p>UKRI introduces Résumé for Research and Innovation (R4RI).</p>
2022	<p>BMBF hosts a conference discussing the results of an evaluation of the WissZeitVG: “Good working conditions in science - on the way to a reform of the WissZeitVG”.</p>		<p>National Council votes in favour of the demands of the 2020 petitions.</p> <p>SSC publishes its report: “Postdocs within Swiss universities: Findings and recommendations of the Swiss Science Council” in response to the 2020 petitions (Swiss Science Council (SSC), 2022). SNSF begins using the new CV format in its project funding scheme.</p>	
2023	<p>BMBF propose an amendment to the WissZeitVG, suggesting shorter time restrictions on fixed-term contracts. After outrage from professors and researchers the amendment is withdrawn three days later.</p>			

