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Shaping interdisciplinary practices in Europe

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# On Leading an *Interdisciplinary* Lab
## Implications for University Careers

Catherine Lyall PhD
Emerita Professor of Science and Public Policy
University of Edinburgh, Scotland

National Academies, 4 December 2023

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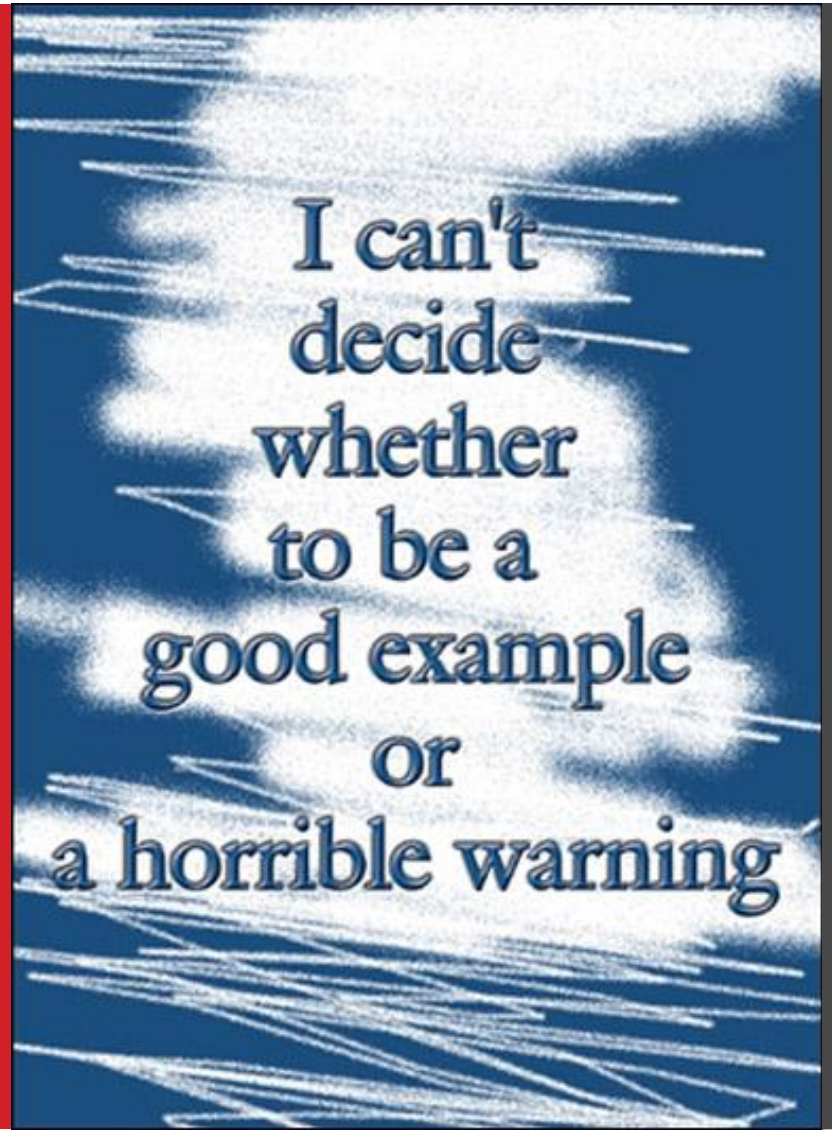
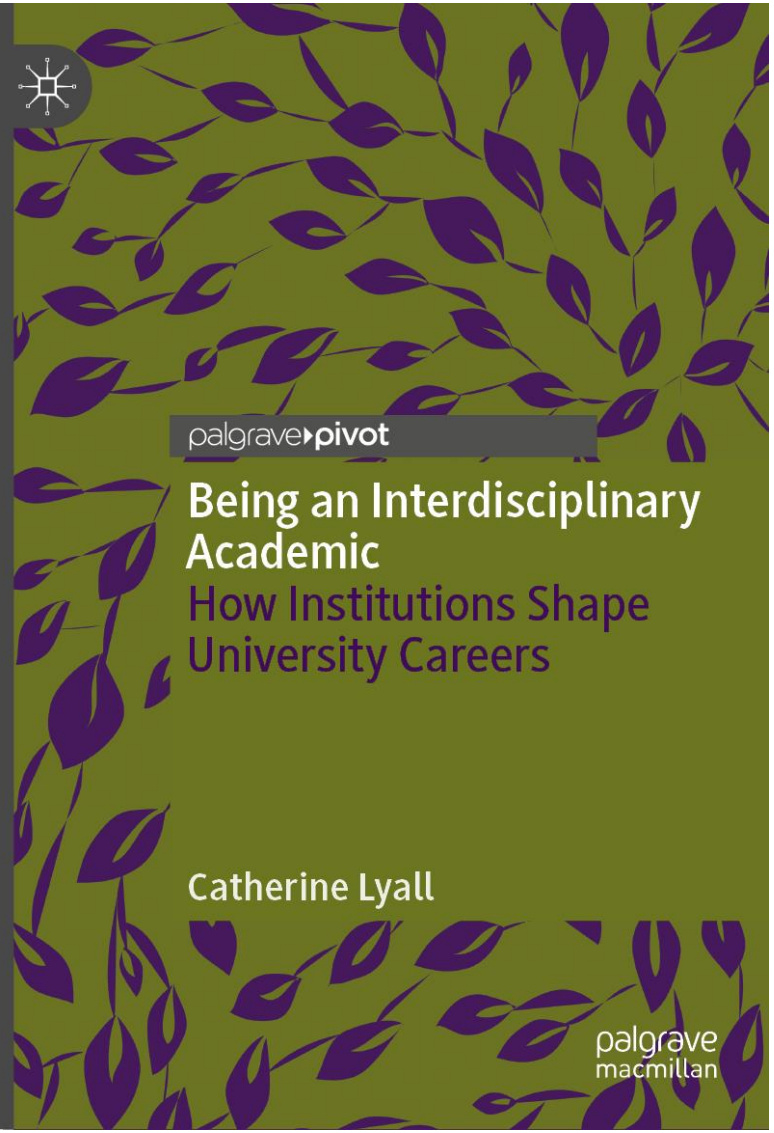
# Interdisciplinary research (IDR) is…

…a mode of research by teams or individuals that integrates information, data, techniques, tools, perspectives, concepts and/or theories from two or more disciplines...to advance fundamental understanding or to solve problems whose solutions are beyond the scope of a single discipline or area of research practice.

National Academies, 2005

Interdisciplinary
Research Journeys
Practical strategies for capturing creativity
Catherine Lyall, Ann Bruce,
Joyce Tait, Laura Meagher
BLOOMSBURY


I can't
decide
whether
to be a
good example
or
a horrible warning


palgrave pivot
Being an Interdisciplinary
Academic
How Institutions Shape
University Careers
Catherine Lyall
palgrave
macmillan

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# The paradox of IDR

IDR promoted at policy level in response to societal challenges

IDR poorly encouraged or rewarded at institutional level (funding and academic structures)

(Weingart, 2000)

*“We like to bring together people from radically different fields and wait for the friction to produce heat, light and magic. Sometimes it takes a while.”*

# Multidisciplinary research 'career suicide' for junior academics

However, director of the Oxford Martin School says 'disciplinary silos' were one factor contributing to 2008 financial crisis

May 3, 2016

By Ellie Bothwell Twitter: @elliebothwell

# Mixed Messages

What they want is disciplinary people with a strong background in a discipline who can work in an interdisciplinary environment or an interdisciplinary team

"Mariana"

ERC ... forces you to nominate assessment panels ... I ended up going through a biology panel … one of the questions I got ... was – "are you one of us"?

"Reuben"

# Implications for interdisciplinary academic careers

- Research centre affiliation: different effects at different career stages: senior faculty appear to benefit, junior academic staff less so (Sabharwal and Hu 2013)
- Extends the “apprentice phase” (Laudel 2017)
- “High risk, high reward endeavour” (Leahey, 2016); “Prominent but less productive” (Leahey et al., 2017)
- Tempting anyone into an interdisciplinary career without providing an adequate safety net still seems, at best, ironic if not hypocritical and possibly even unethical (Lyall, 2019)

# Additional leadership challenges

- Funding for academic life course
- Review processes (Lyall & King 2013)

  Composition of panel; selection of external reviewers; design of review process – latest UKRI evaluator training
- Recognition of career implications
- Promotion and reward structures

  Edinburgh HR Guidance on ID and Team Research; Klein Campus Cultures; SciTS
- Role models, mentors and champions

  Dupin PhD 2023

# Signposts to IDR tools and resources

- SHAPE-ID toolkit
- UK Research Concordat
- Vitae and the RDF planner
- UK Future Leaders Fellowship
- ITD Alliance
- Foundations anthology

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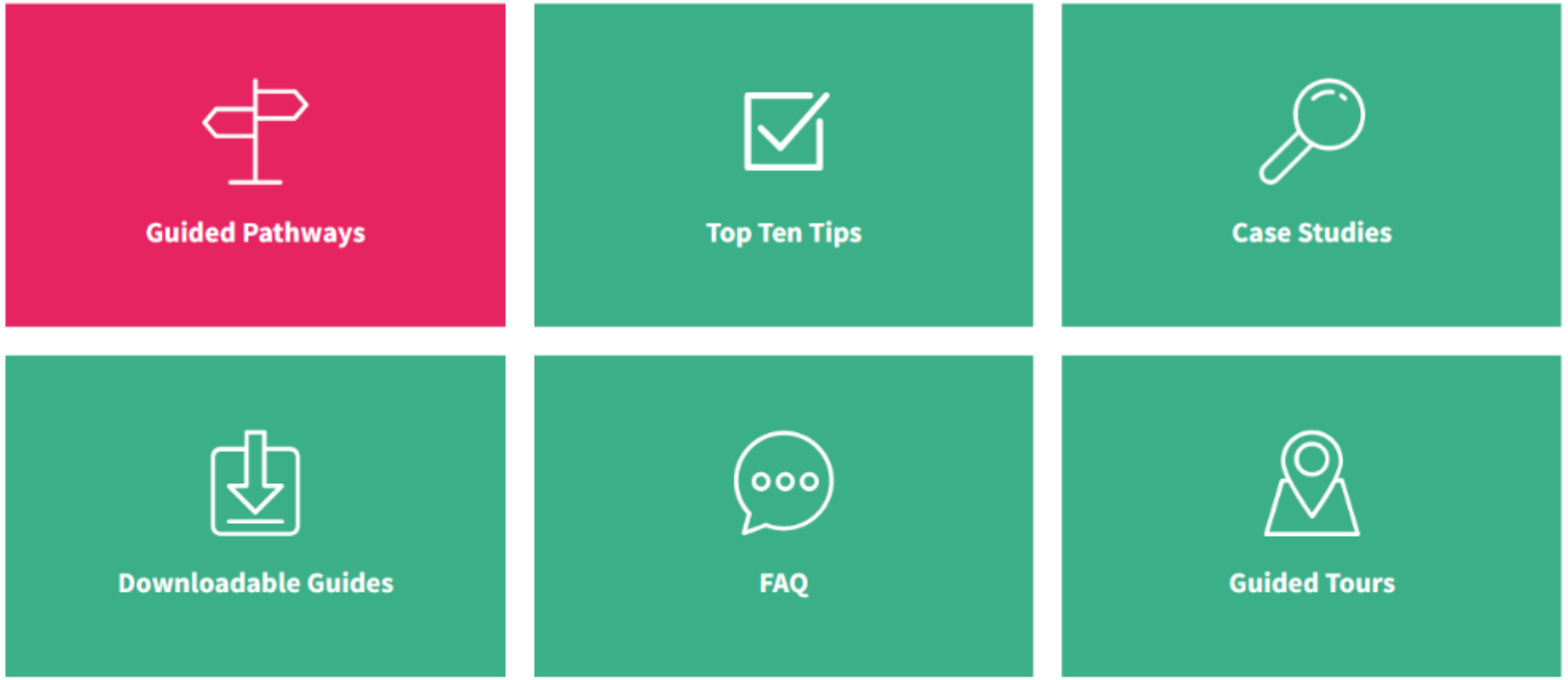
# Learn more using the SHAPE-ID Toolkit:



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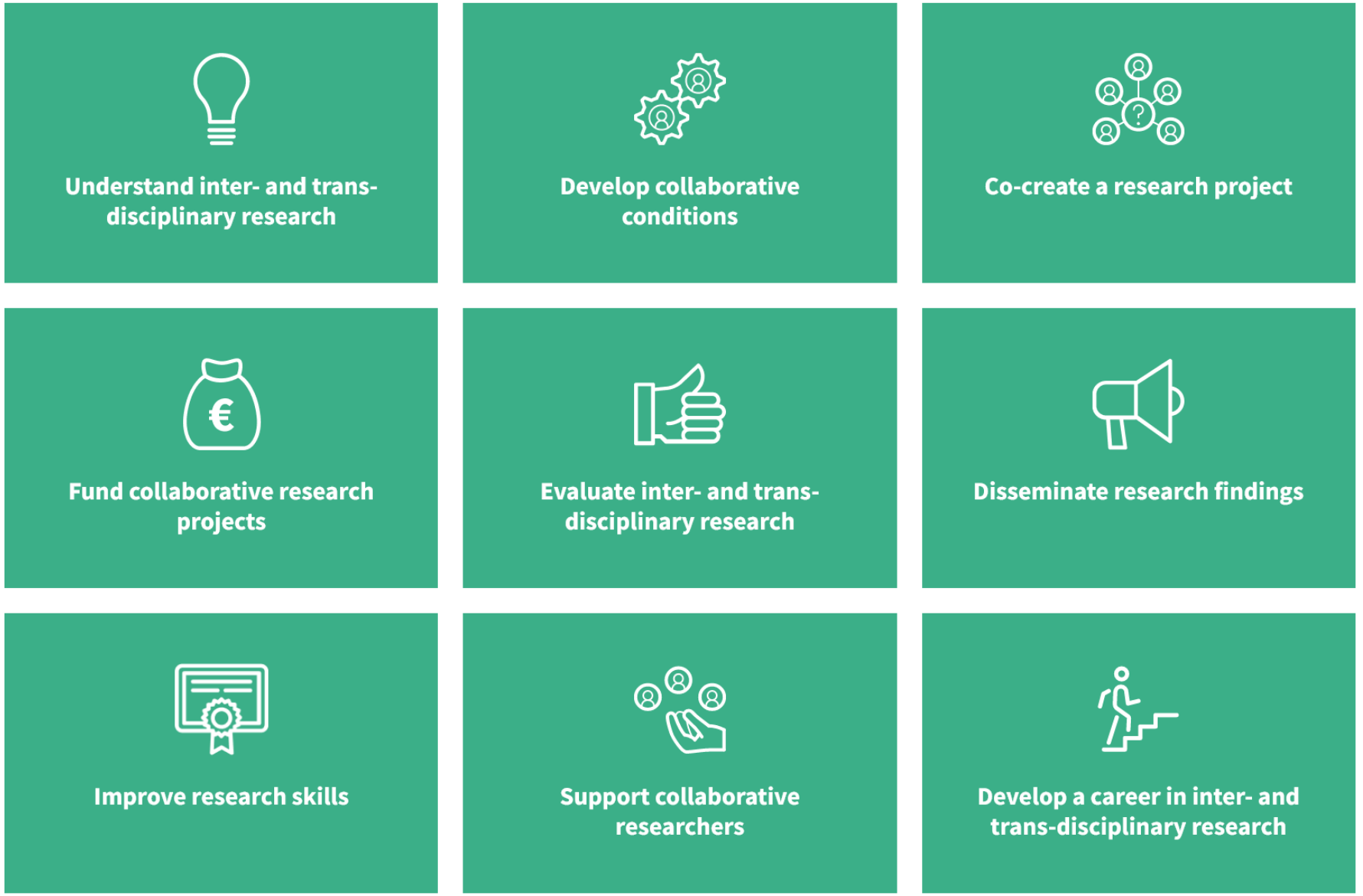
- What is IDR/TDR and why do it?
- How to create collaborative conditions and co-create a research project?
- How to fund, support and evaluate IDR/TDR?



# Develop a Career in Inter- and Transdi Research



Create an ID/TD CV

Build and sustain a career as an ID/TD researcher

Develop a network

Supervise an ID/TD PhD

Early stage researchers, in particular, can receive very mixed messages about the wisdom of pursuing an interdisciplinary research career which is often regarded as high risk within a research system that is still primarily structured on discipline-based evaluation and recognition criteria. Success may require a more tactical approach to career development.

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TOP TEN TIPS | INTER- AND TRANSDISCIPLINARY CAREERS

# Top Ten Tips for inter- and transdisciplinary academic careers **from SHAPE-ID partner,** Professor Catherine Lyall

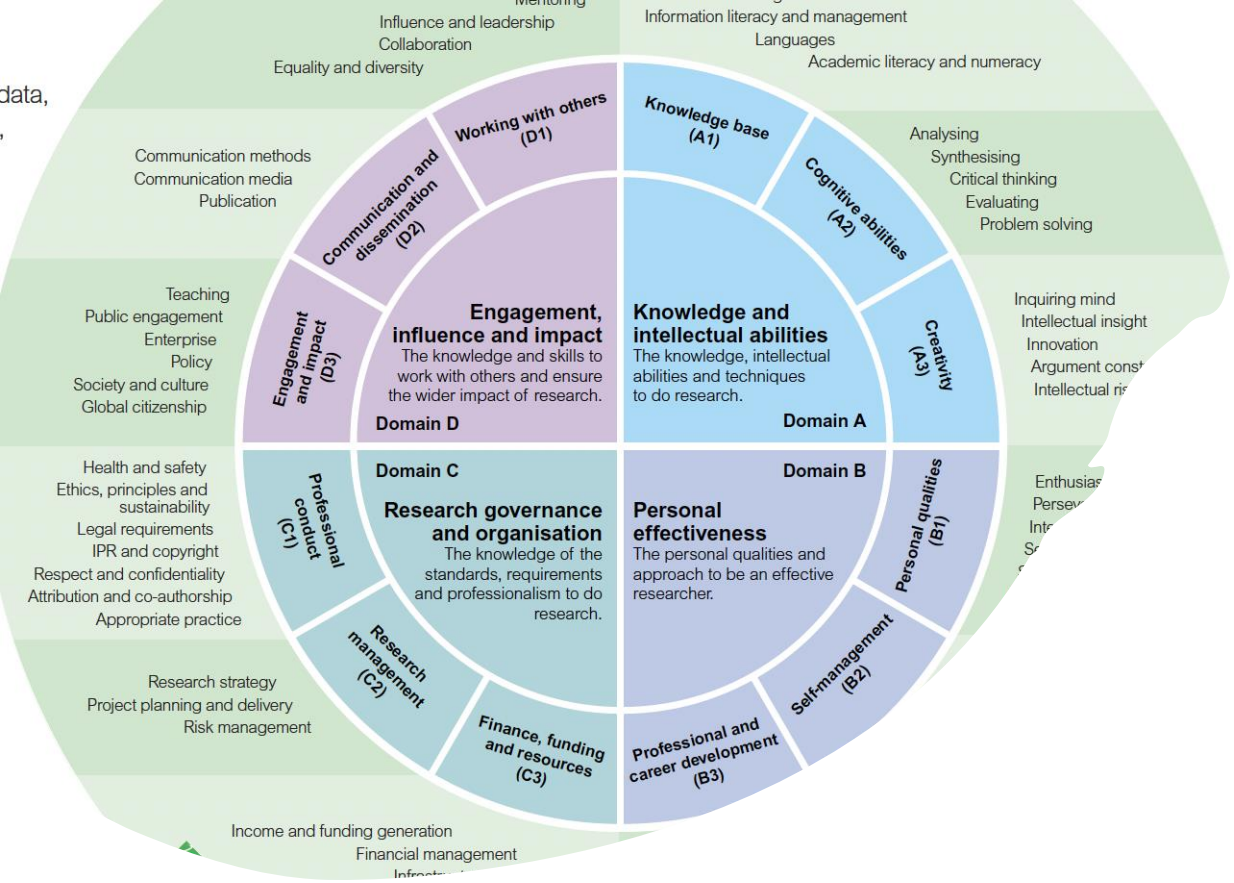
1. Especially if you are an early stage researcher, recognise that drawing on and integrating two or more bodies of literature, methodologies and research cultures will be challenging – don't be too hard on yourself and don't be afraid of asking for help.
2. It is easy to feel isolated, unless based with like-minded individuals, so try to find people to share problems and lessons learned with – think about networking and community building within and beyond your institution.
3. Build core competencies to sustain inter- and transdisciplinary research careers. These include "metaskills" training (such as leadership, communication, negotiation, etc.) and general "academic life skills" – a good mentor can help with these.
4. If you are studying for a PhD, use your supervisors to help you set manageable boundaries and work with your supervisors to ensure clarity and continuity of communication between all parties about

This **aspirational** Concordat sets out the conditions we believe are required **to create the very best culture for our researchers to thrive**. We identify working practices and clear responsibilities, vital to increase the appeal and sustainability of researcher careers in the UK

…

All organisations with an interest in the career development of researchers are **encouraged to become signatories** of the Concordat.

https://researcherdevelopmentconcordat.ac.uk



# Vitae and Researcher Development Framework

Non-profit programme, part of the UK Careers Research & Advisory Centre (CRAC) Ltd

- Influence the development and implementation of effective policy relating to researcher development
- Enhance higher education provision to train and develop researchers
- Empower researchers to make an impact on their careers
- Evidence the impact of professional and career development support for researchers

# Future Leaders Fellows Development Network

UK Research and Innovation

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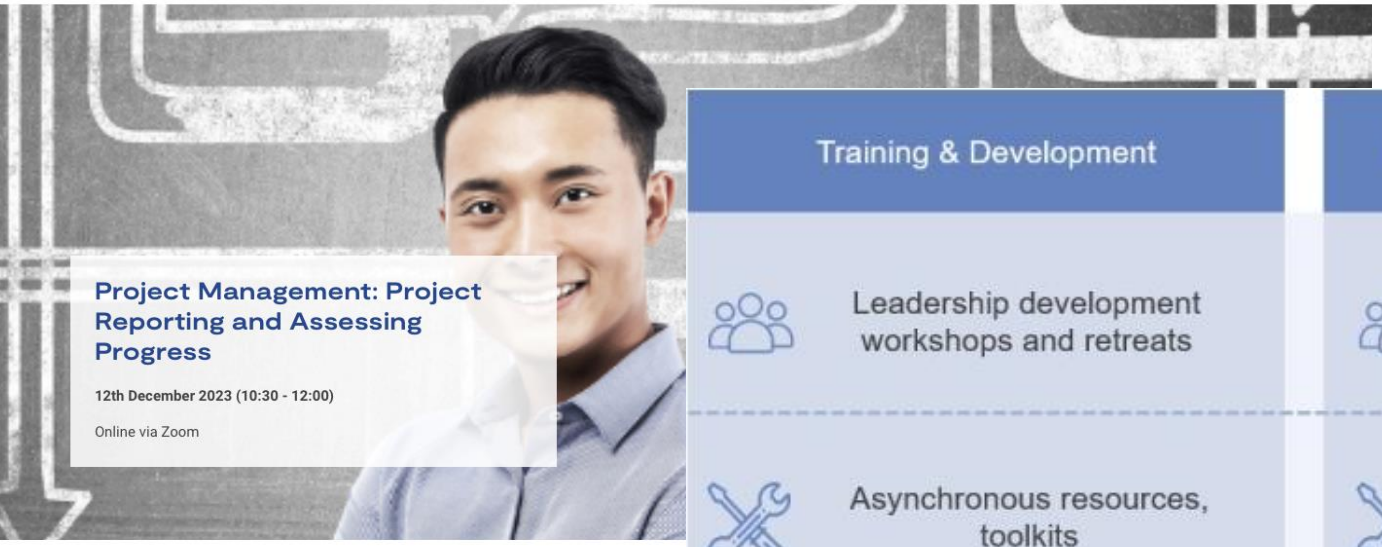
LOGIN




## UKRI funded, Fellow led

| Training & Development | Community & Cohort Experience | Research & Innovation Environment |
|---|---|---|
| Leadership development workshops and retreats | Four-strand mentoring programme | Specialist Knowledge Exchange, Innovation and Policy Engagement Managers |
| Asynchronous resources, toolkits | Themed, fellow-led coffee mornings | 'Under the Hood' sessions with colleagues from UKRI and BEIS |
| One-to-one professional coaching focused on personal career development | Internal funding scheme: Plus Funds designed to further the aims of the Network | Direct access to cross-sectoral leaders through 'Research Exchange Days' and 'How To' sessions |
| Bespoke 360 feedback and coaching focused on management and leadership skills | Access to Community Manager to form development pathways | Interdisciplinary, collaborative 'Crucibles' events with pump priming for proof-of-concept |

ITD Alliance

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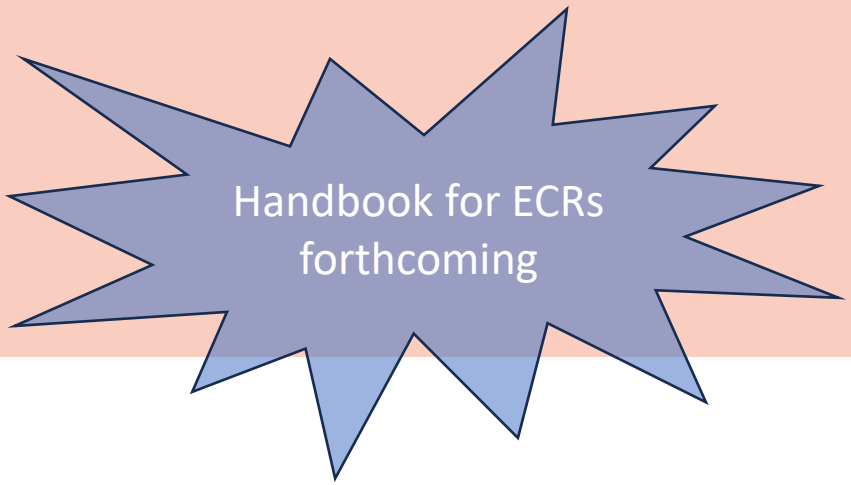
# Early Career Researchers




Inter- and transdisciplinary (ITD) early career researchers (ECRs) face various challenges performing their research and reaching their career goals. The ITD ECRs working group is focused on the support, peer-exchange and mentorship of early career researchers, lecturers and students. We discuss these challenges and prospects for future action with the aim of networking and jointly developed solutions.

# Resources

Toolkit and bibliography available from www.shapeidtoolkit.eu

Introduction and first chapter available Open Access under CC-BY-NC-ND licence

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Matthias Egger, Swiss National Science Foundation

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