

# Acknowledgements



## Interviewees

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Dr. Anniek de Ruijter, University of Amsterdam  
Prof. Dr. Burkhard Becher, University of Zurich  
Prof. Carol Brayne, University of Cambridge  
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Prof. Jane Ohlmeyer, Trinity College Dublin  
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Prof. Jenny Taylor, University of Oxford  
Prof. Jérôme Meizoz, University of Lausanne  
Prof. Johannes Glückler, Universität Heidelberg  
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Prof. Stéphanie Hennette-Vaucher, University Paris Nanterre  
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Prof. Yuri Volkov, Trinity College Dublin  
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Prof. Cathy Dwyer, University of Edinburgh  
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Ms. Kerry Miller, University of Edinburgh

Ms. Claire Pembleton, University of Edinburgh  
Mr. Alan Campbell, University of Edinburgh  
Mr. Stuart Easter, University of Edinburgh  
Dr. Rod Mitchell, University of Edinburgh  
Mr. Stuart Dunbar, University of Edinburgh  
Ms. Katey Warren, University of Edinburgh  
Ms. Imogen Johnston-Menzies, University of Edinburgh  
Ms. Jessie Fubara-Manuel, University of Edinburgh

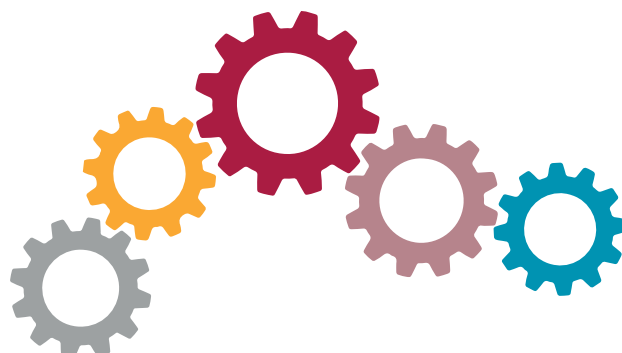


## Organising Committee

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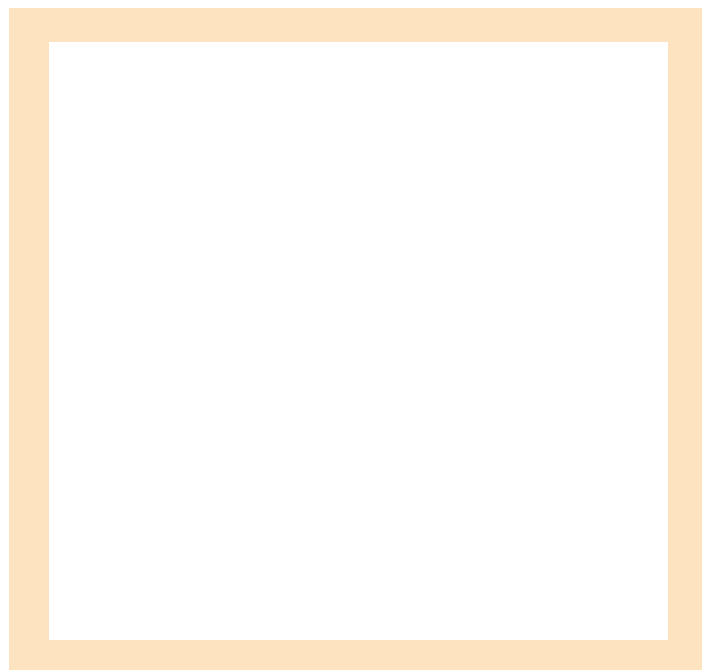
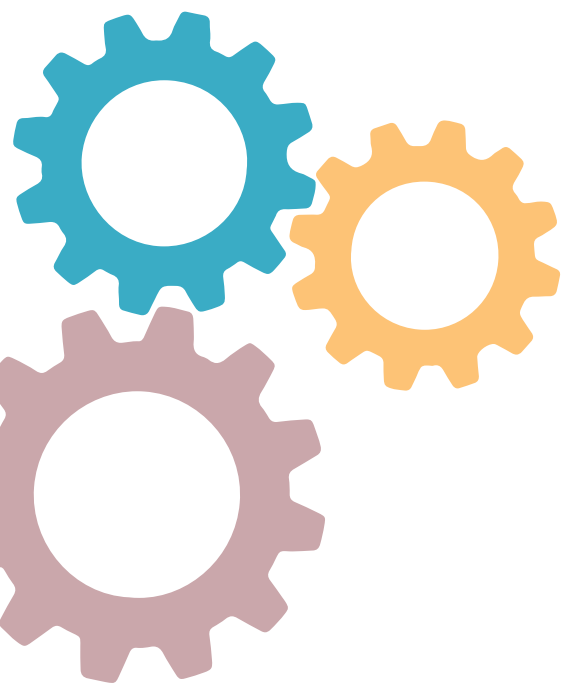
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# Introduction

When the University of Edinburgh proposed international collaboration as a theme for the annual LERU doctoral summer school, it was obvious for LERU to support that idea, and I'm delighted to take this opportunity to emphasise the opportunities that international collaboration offers. Rather than telling researchers about collaboration, the vision of the organising team was to create a collaborative challenge for the summer school attendees – to create a high quality publication in five days! The guide you are now reading demonstrates how much a group of like-minded and motivated researchers can achieve when they pool their skills and experiences to work together.

LERU, the League of European Research Universities, is itself a collaboration between 23 universities in 12 European countries which has proven to be very successful. Over the past +15 years, joint lobby activities have been set up, joint best practices have been developed, joint research projects have been implemented and joint degree programs have been offered, all of this enhancing collaboration and mobility between the 23 members' leadership teams, researchers and students.

Clearly, (national, European, international) collaboration is beneficial for research, innovation and education: it increases the interaction between people, the exchange of ideas, the development of breakthroughs, the speed of scientific progress, the exchange of scientific knowledge, the understanding of cultural differences, the quality of the student experience. This guide draws from the experiences of researchers from across the LERU network and summarises the many benefits of working together, whilst being honest and realistic about the challenges that can arise.

I am confident that the quality of this guide will demonstrate what a great experience our doctoral researchers had and I hope will inspire many others to work collaboratively.

- Prof. Kurt Deketelaere, Secretary-General, LERU

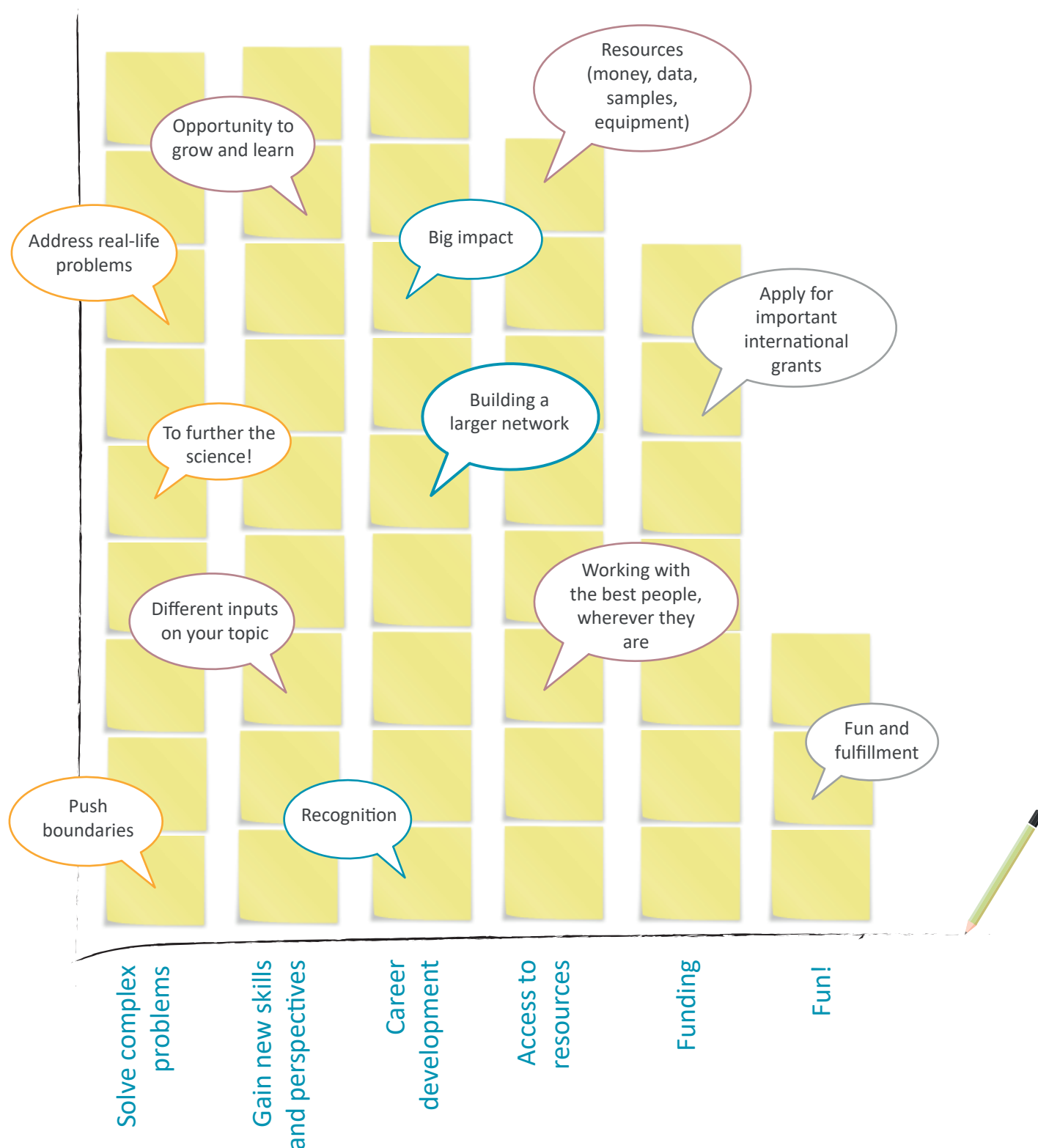
# Why Collaborate?



## Motivations for collaborations

One of the first questions we asked our interviewees for this guide was about their motivations for collaboration. It's important to understand this of all partners from the beginning as it will help to design and run the project to deliver on all partner's needs. Appreciating what your partners are depending on could help to reduce conflict if parameters change as the research develops.

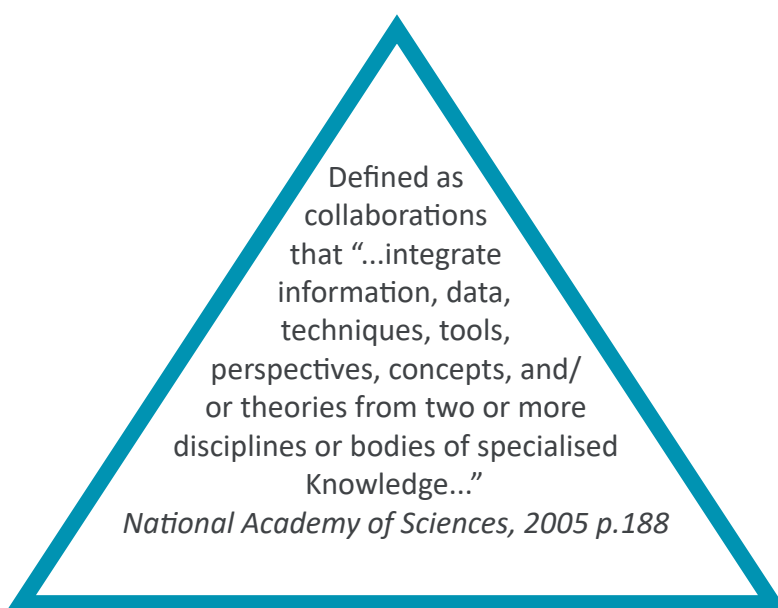
Below is a histogram of the most common reasons identified for collaborating. A few selected comments are highlighted to help illustrate what the general headings mean to individuals.



# Models of Collaboration

Research collaborations involve an equal partnership between two or more groups or individuals pursuing mutually interesting and beneficial research. A significant intellectual contribution by each collaborator is necessary for the interaction to be considered a collaboration (adapted from the Office of Research Integrity).

This guide will distinguish between three models of research collaborations; collaborations with other disciplines (interdisciplinary), researchers in other countries (international), or with non-university partners (intersectoral). The definitions used in this guide are shown below. The coloured shapes will be used throughout the guide to indicate if the content is particularly relevant for a particular model of collaboration.



Collaborations can often be combinations of these models. This guide is full of advice about how to establish and run successful projects, some of which is specific to particular types of research. If you can recognise what type of collaboration you are pursuing it's easier to know what advice will have the most relevance.


# Success Factors

Six key success factors for collaborations were identified based on the interviews and informed from relevant literature. These were trusting relationships, shared vision and goals, clear and effective communication, mutual benefits, effective management and support, and positive team dynamics. Within these six key success factors the good practice that achieves them were identified from the interviews.




## Trusting relationships

Set time aside to nurture social relations; meet face to face and chat	Be ethical and responsible; create an explicit code of conduct from the beginning	Transparency is key; all partners should have access to all data and materials where possible
Avoid hierarchy of disciplines and value other perspectives	Be honest. Be clear about your aims and honest about your own skills and limitations	Commit to the project



## Shared vision and clear goals

Explicit, open and transparent discussion of vision & goals in joint meetings	Clearly formulate and goals and commitments	Establish tools and resources to get to the goals
Don't lose perspectives of the objective of the collaboration	Understand background & motivations to join the project	Value all members equally



## Clear and effective communication

Have frequent and efficient meetings with all members	Establish a common language between all involved parties	Ensure common understanding of expectations, tasks, deadlines and outputs
Allow different and safe forums for communication	Listen actively and encourage the sharing of opinions of all members	Openly discuss differences as soon as they arise to ensure transparency

## Mutual benefits



Being aware of what the mutual benefits are

Align interests for all: individual and organisational, seek compromises

Build strategic alliances with collaborators you can benefit from

Explore differences between academia and industry (or just between academia)

Discuss patent or intellectual property or authorship

Encourage intergenerational learning

## Effective management and support



Have clarity at the outset about resourcing, tasks, goals and project design

Ensure appropriate administrative/technical support and central contact in place

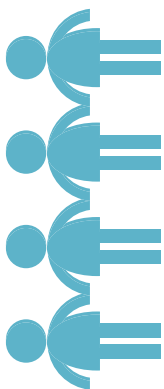
Clarify roles, responsibilities and communication structures

Set and communicate clear, achievable deadlines and schedules

Have regular face-to-face meetings to monitor progress, review and adjust as needed

Ensure files, data and schedules are accessible to all and stored securely and ethically

## Positive team dynamics



Be open regarding goals and agendas

Actively listen to others' inputs and concerns

Keep a positive, engaged and passionate attitude

Engage in informal social activities

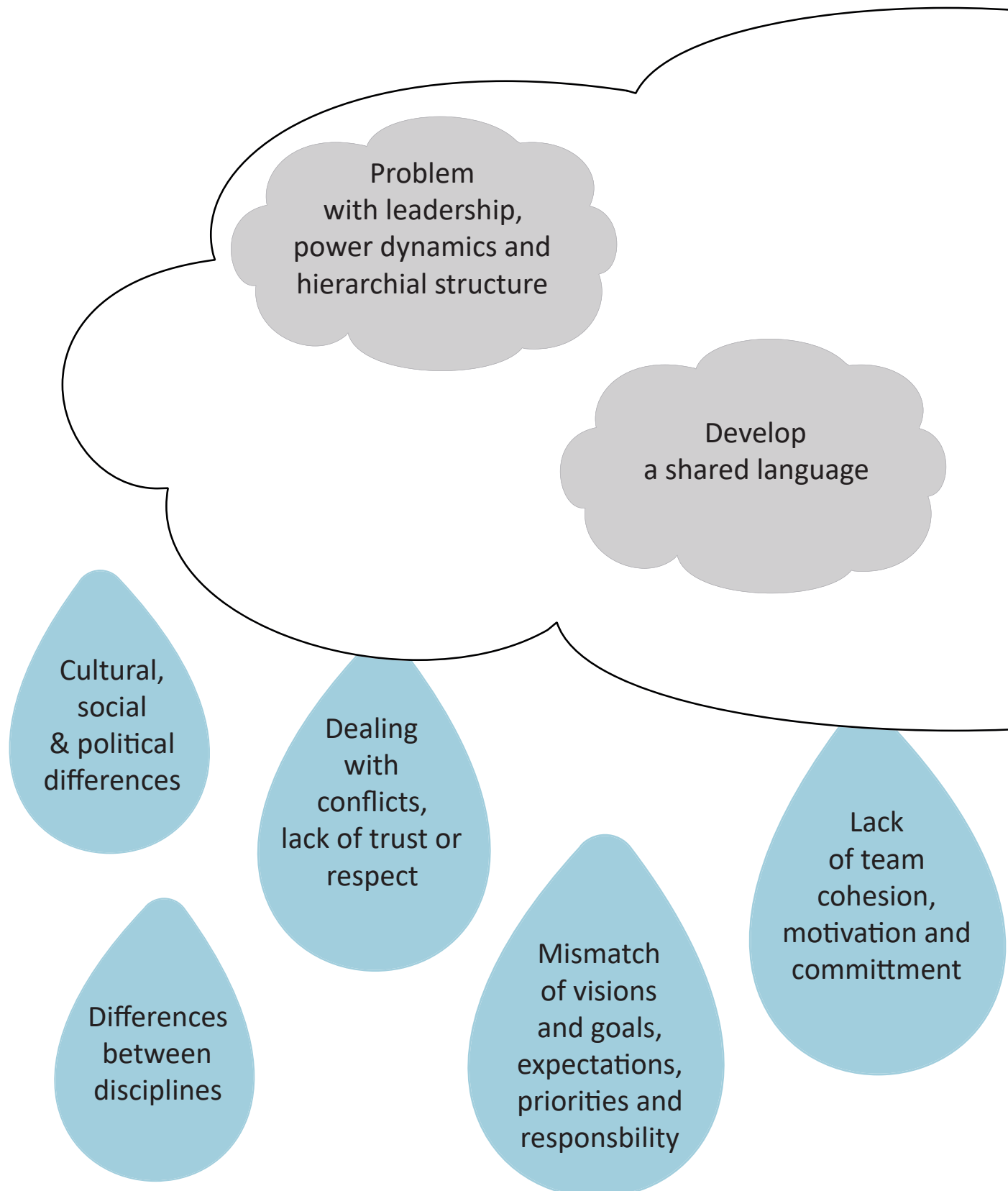
Be ready to compromise and negotiate a middle ground

Be inclusive and open minded

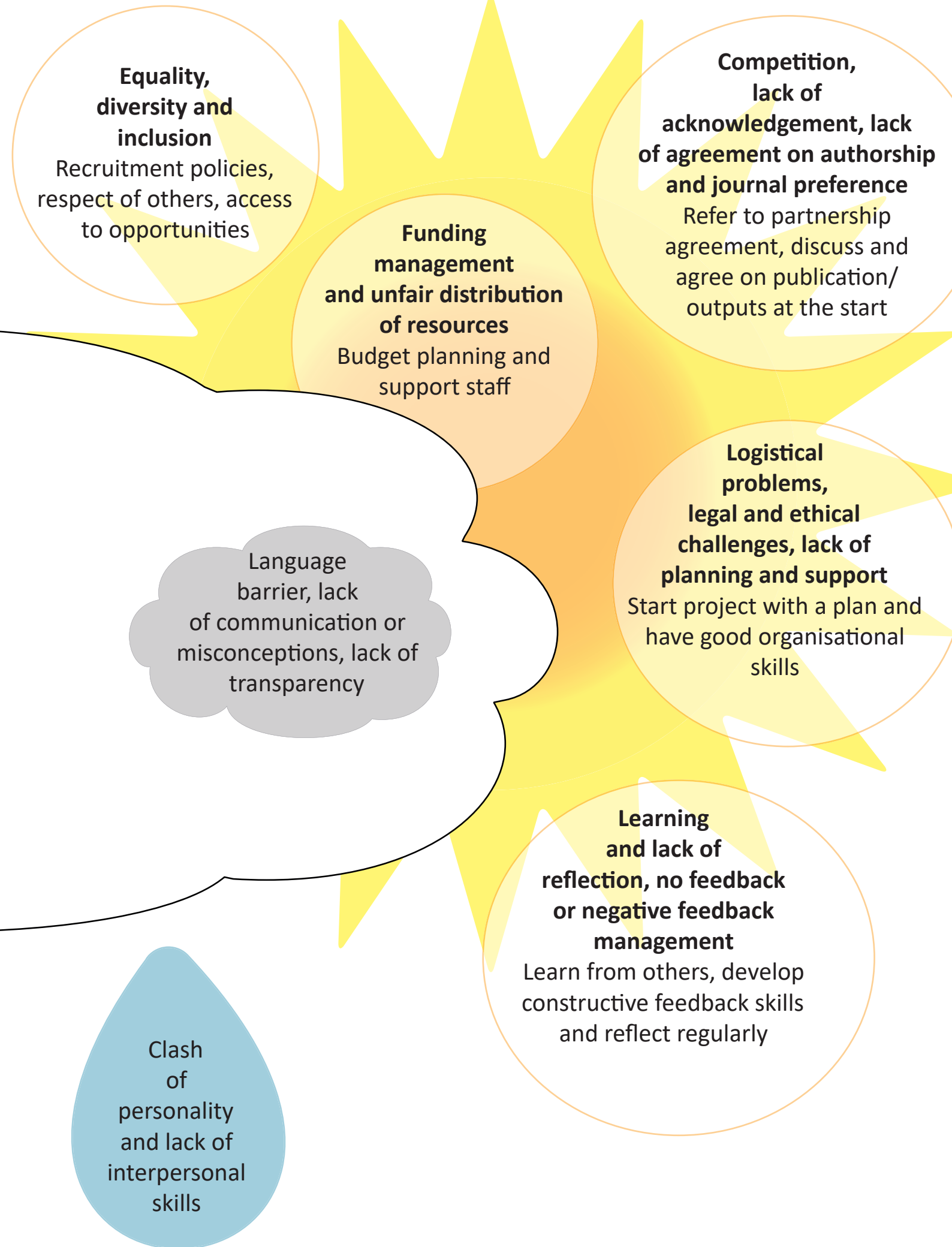
These success factors were felt to be relevant to all models of collaboration as they contributed to the success of international, inter-disciplinary and inter-sectoral projects.

# Challenges of Collaborations

Collaborations will inevitably come up against challenges. Many of these can be anticipated during the design of the collaboration and solved through appropriate processes such as having a partnership agreement, implementing good practice and using support from professional services. However, some challenges may be unexpected, and may not have clear processes in place to solve them. The challenges identified below highlight some of the main challenges that collaborations might face, both those that can be solved with appropriate processes (sun rays) and those that are more complex (rain drops). The challenges within the cloud can be addressed but require high levels of trust and engagement, rather than processes and systems.

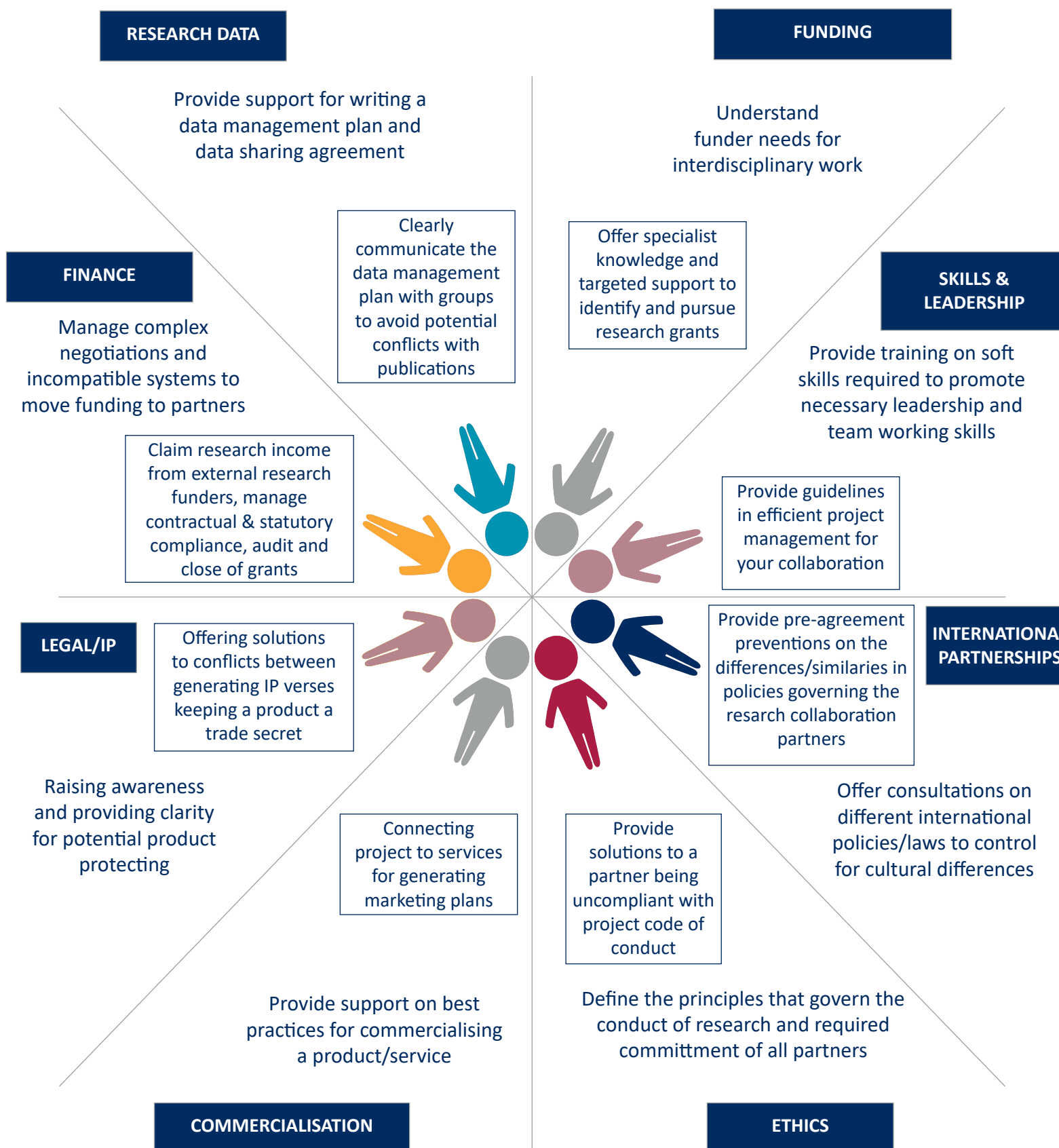




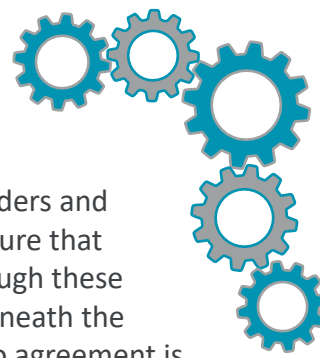


# Support for Collaborations

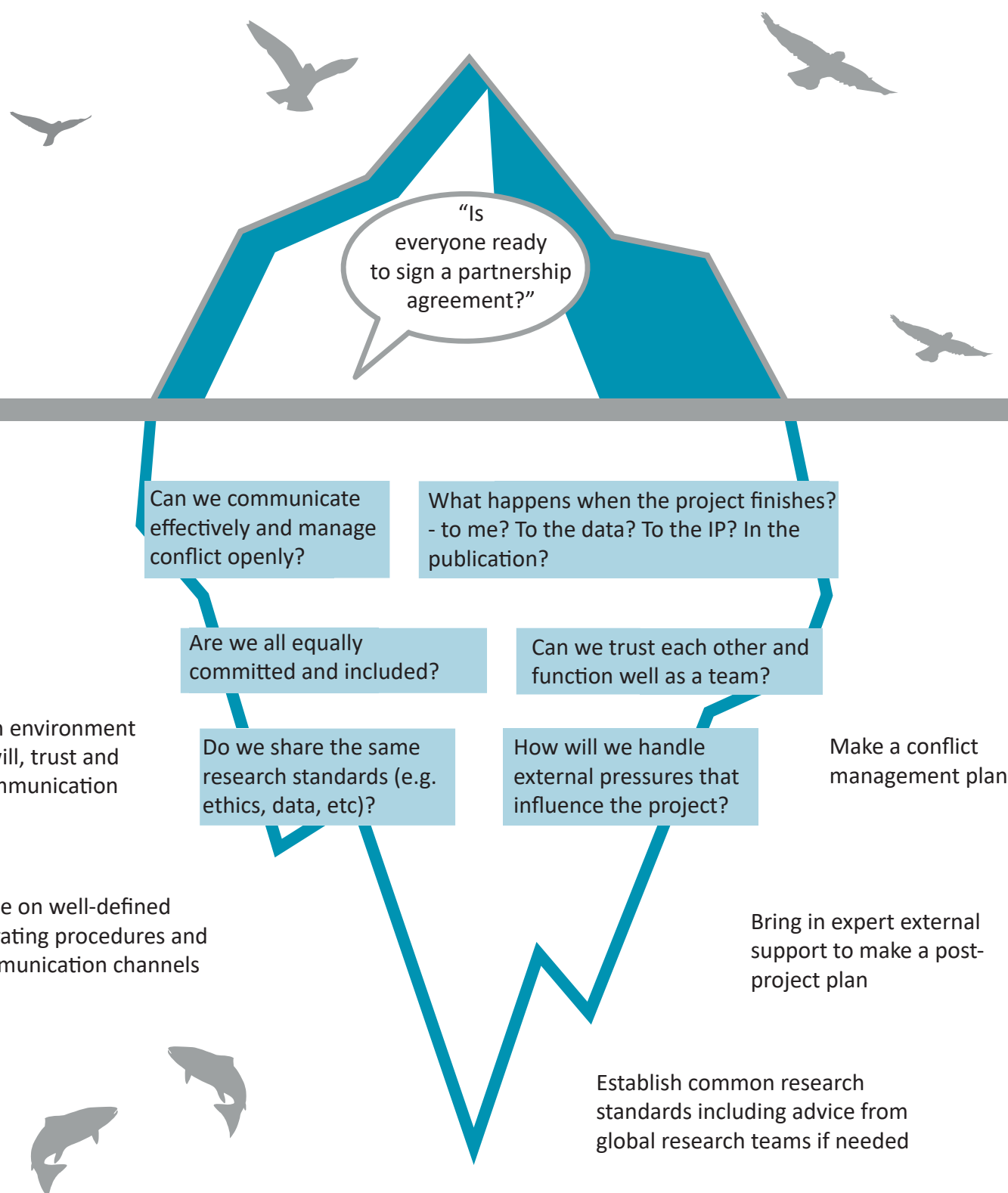
Collaborations are built around the expertise of the researchers, but also benefit from professional services. Here are some of the support services you could involve whilst you are developing your ideas and as project deliverables start to appear. The boxed text suggests one way in which each service could make life a little easier for researchers.



# Partnership Agreements

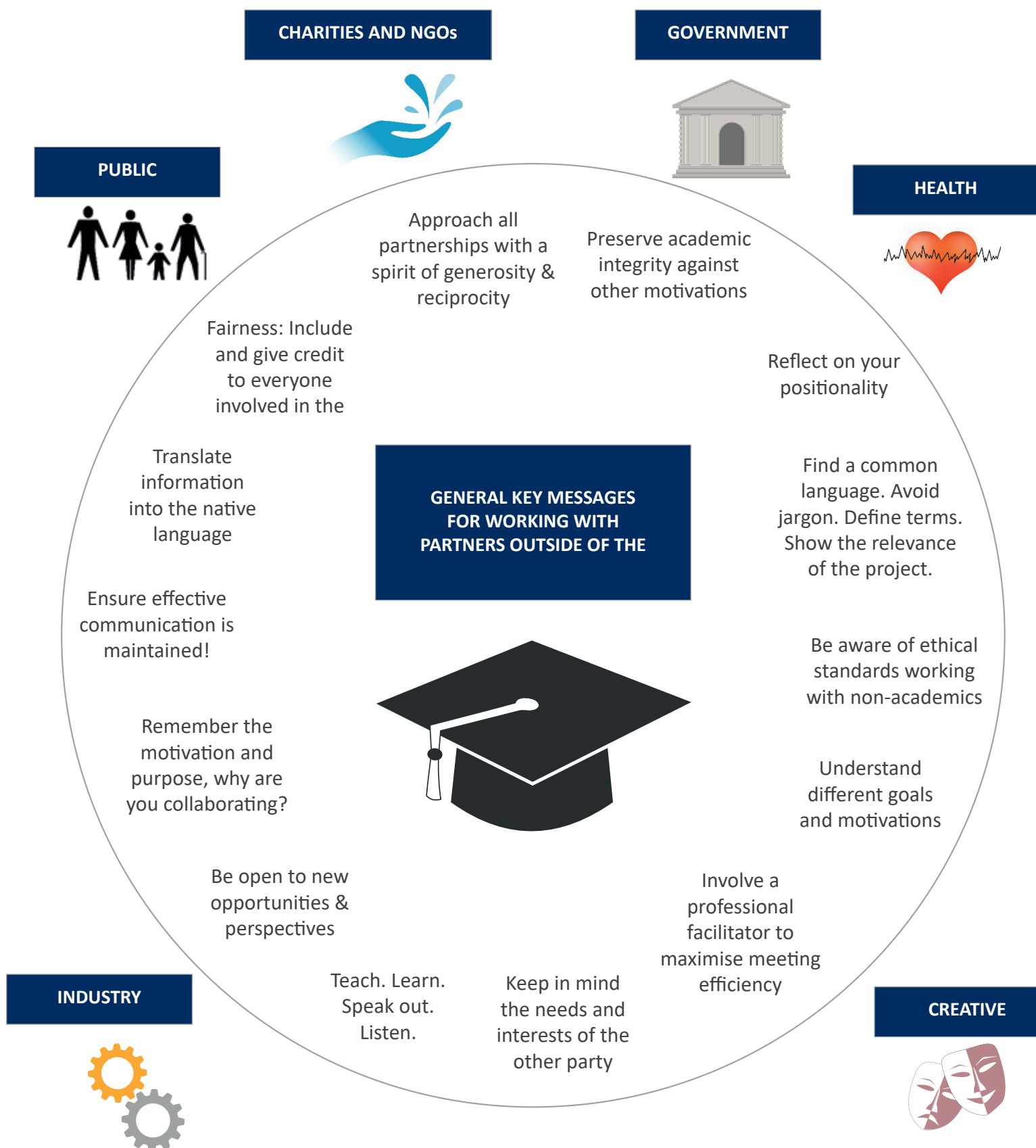


Diversity in collaborations brings many benefits, but also adds complexity. Increasingly funders and institutions are asking collaborative teams to work through partnership agreements to ensure that projects are set up effectively and with advance thinking about potential challenges. Although these agreements are designed to reduce problems, they can reveal certain sensitivities that lie beneath the surface. Recognising these and speaking honestly will help ensure the process of coming to agreement is positive and productive. The schematic below summarises some of the sensitivities that may be triggered when discussions about potential future problems take place, and demonstrates how the success factors described earlier can help reduce these tensions and keep positive engagement on track.



# Partners Beyond the Academy

If your partners are from outside higher education institutions, you should expect them to approach research and collaborations with different motivations and viewpoints. If you understand these it can help avoid misunderstandings and build a shared vision for the project shared by all partners.



# Cultural Dimensions

Although we've discussed many systems and processes to support collaborations it's important to recognise other factors. The words and phrases below reflect some of the ways in which culture can influence behaviours and attitudes. Research collaborations benefit from diverse cultures if time is invested in building understanding between different cultures. The questions are designed to build understanding between collaborators to minimise tension and make these hidden differences visible early.

Who is in charge and what does this mean?

What might cause conflict in this work?

How do you deal with conflict?

How important are deadlines to you?

What worries  
you about the  
project?

What are the levels of (administrative) support for collaboration in your institution?

What inspires  
you in this  
collaboration?

How do you  
feel about  
challenging  
leaders?

What will you  
take responsibility  
for?

Who would be involved in writing the proposed published outputs, and what would these look like?

What are the core principles, standards and ethics of your work?

What value does this project have to your career?

What is your  
view of the  
world?

What does rigour look like in your field?

Are there any common misconceptions about you or your research that you've faced?

Are there any words that you use which might not mean what I think they mean?



Culture describes a range of behaviours and beliefs acquired through social learning in the environments we grow, live and work in. These include national, disciplinary and organisational cultures, and they influence many of our attitudes and actions.

# Key Messages

"It is also difficult when you work with people who don't think like you. So it's always important to focus on the science, the project and the people equally."

- **Dr. Makoto Miyara, Sorbonne University**

"In [another project], I saw how different contributors and actors add very different value to the success and I found it very beneficial also regarding my own learning path...People bring in different types of knowledge, different types of interpretation of the problems and these [differences] always affect each other in a very exciting way."

- **Zsuzsa Kovács, Eötvös Loránd University**

"... you get lost in the translation because everybody things they are talking about the same things with the same words, but they are not really talking about the same thing..."

- **Stéphanie Hennette-Cachez, University Paris Nanterre**

"Who is into research is driven by curiosity in the first place, but also needs to consider that the ultimate task is to produce something more than personal knowledge, which is "shared knowledge": in other terms as researchers we produce publications. Authorship and author's position are important themes and have to be discussed."

- **Dr Thomas Langer, The University of Milan**

"The collaboration enabled the access to various courses and conferences."

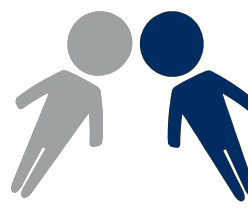
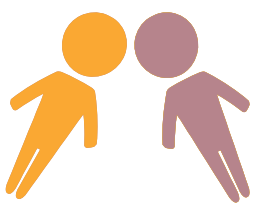
- **Cristina Staub, Service Sans**

"Insights from more than one place...Two bits of information together are more powerful than separately and may help solve real-world problems."

- **Dr Isabel Fletcher, The University of Edinburgh**

"In order to sit at the same table, you have to be interested what the others are doing and where they come from."

- **Karoliina Snell, University of Helsinki**



"We do science not because we are paid a lot of money for it, but because we actually enjoy it. And this includes people. So don't make your life more difficult working with people you don't like and find another way."

- **Prof. Dr. Burkhard Becher, University of Zurich**

"[A key challenge is] finding ways to improve together even when this implied having to accept partners' conditions (i.e. study design, distribution of funds, dissemination of the results) or having a strong position to establish your own to reach a win-win collaboration."

- **Dr Esteve Fernandez, University of Barcelona**

"I've learned a huge amount about a completely new area which has been really good fun! [...] It has allowed me to diversify potential funding streams."

- **Pete Nellist, University of Oxford**

"Collaboration projects have been the most interesting and rewarding pieces of work I have ever been part of, but also, some collaborations have been the biggest frustrations of my career."

- **Mark, Rehkämper, Imperial College London**

"There are some unwritten rules for collaborations in different cultures and you can't fulfil them if you don't know them. You have to discover those rules through conversations."

- **Zsuzsa Kovács, Eötvös Loránd University**

"There's a very big gap between doing something for someone, or doing things together and just discussing things together."

- **Karolina Pircs, Lund University**

"You learn to know people. You learn to know yourself, your limits, how much work you can handle. You learn to say "no", when it's not possible. And, you learn to be involved with others, that's a key issue."

- **Dr Elio Shijaku, University of Barcelona**





"Throughout my career, I can say that the most fruitful moments of collaborations have been unorthodox formats like, writing retreats so everybody goes away for three or four days."

- **Stéphanie Hennette-Cachez, University Paris Nanterre**

"Usually international collaborations have higher impact and have been shown to be more citable."

- **Prof. Sir Peng Tee Khaw, UCL**

"Perhaps most difficult things in collaborations are both the personal and methodical challenges: conceptual confusion can easily arise, whereas you both have to be clear with the other as well as flexible enough to keep a proper working relationship."

- **Dr. Anniek de Ruijter, University of Amsterdam**

"You also have to feel that this is something that is beneficial for both partners. We get resources and possibilities to do other things. They also get a relevance and have the possibility to be in another context."

- **Prof. Fredrik Tufvesson, Lund University**

"One must make agreements in order to gain mutual trust."

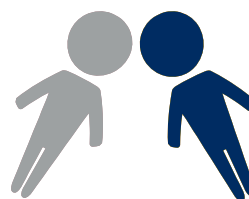
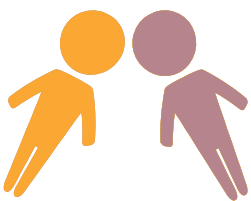
- **Karoliina Snell, University of Helsinki**

"Researchers should follow their interests. Ask themselves: 'Who are the people at the edges of those disciplines that I could pull together?' Develop an idea over a period of time and write a grant proposal."

- **Prof. Keven Mitchell, Trinity College Dublin**

"You may be different but have complementary views."

- **Dr. Makoto Miyara, Sorbonne University**





# Top Tips for Getting Started

For more advice, seek mentors and support services



Be open, visible and actively search for opportunities



Choose partners wisely (personally and professionally)



Establish a joint vision from the start



Choose a small number of collaborations and commit effort and time to them



Develop a clear sense of your role and responsibilities



Clarify the benefits for yourself and your collaborators



Be prepared for changes and endings in the project



Find a common language and ask questions



Appreciate other ways of researching



Develop resilience and patience; don't take things personally

# Do it Yourself

The advice in this guide was gathered through over 50 interviews with experienced researchers from a wide range of disciplines and countries who were all happy to talk to doctoral researchers about their work. We hope this encourages you to have similar conversations with researchers in your own area of interest. To help, here are the questions our authors used.

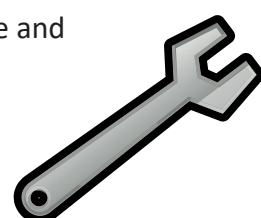


1. Please state your name, current position and University
2. Please can you briefly describe your current research focus (up to 100 words)
3. Briefly describe whether your collaborations were with other disciplines (interdisciplinary), researchers in other countries (international), or with non-university partners (intersectoral).
  - Whilst collaborations are often a mix of these models, we want to structure the guide so that researchers can find advice that is most relevant to their situation.
4. What has been the value of collaboration to your career and your research?
5. What has been challenging about collaborating with others?
6. What did you do to help your collaborations be successful?
  - These could include examples around trusting partnerships, shared goals and visions, communication, management systems, handling of conflicts or use of support services within your university.
7. What did you learn from your experiences?
8. Any particular advice you have for PhD students on how to get started?

Authors also identified what questions they wished they could have asked their interviewees after attending the summer school. These included:

- Q. Was your collaboration worth it and how would you measure its success?
- Q. What have you learnt from collaborations that have failed, and what would you do differently?
- Q. As an underrepresented academic (on grounds of gender, disability, social background, race/ethnicity, etc) do you have specific advice for me?
- Q. How do you remain resilient when collaborations fail despite significant investment of time and effort?
- Q. How do you say NO to collaboration opportunities without jeopardising the connection?
- Q. How does funding influence how you start a collaboration and its scope?
- Q. How do you address conflicts when they emerge?
- Q. As a PhD student, what advice can you offer on how to handle conflicting messages from more senior individuals within the collaboration network?
- Q. What were your motivations in the beginning of your career? How have your motivations changed as your career has progressed?
- Q. Can universities do more to foster early career collaboration? What have you done to help young researchers start a collaboration?
- Q. Reflecting on past collaborations, how did your view of collaboration evolve?
- Q. How do you end a collaboration?

We hope that this guide give you the confidence to ask the researchers around you for their advice and encouragement for research collaborations.



# Authors

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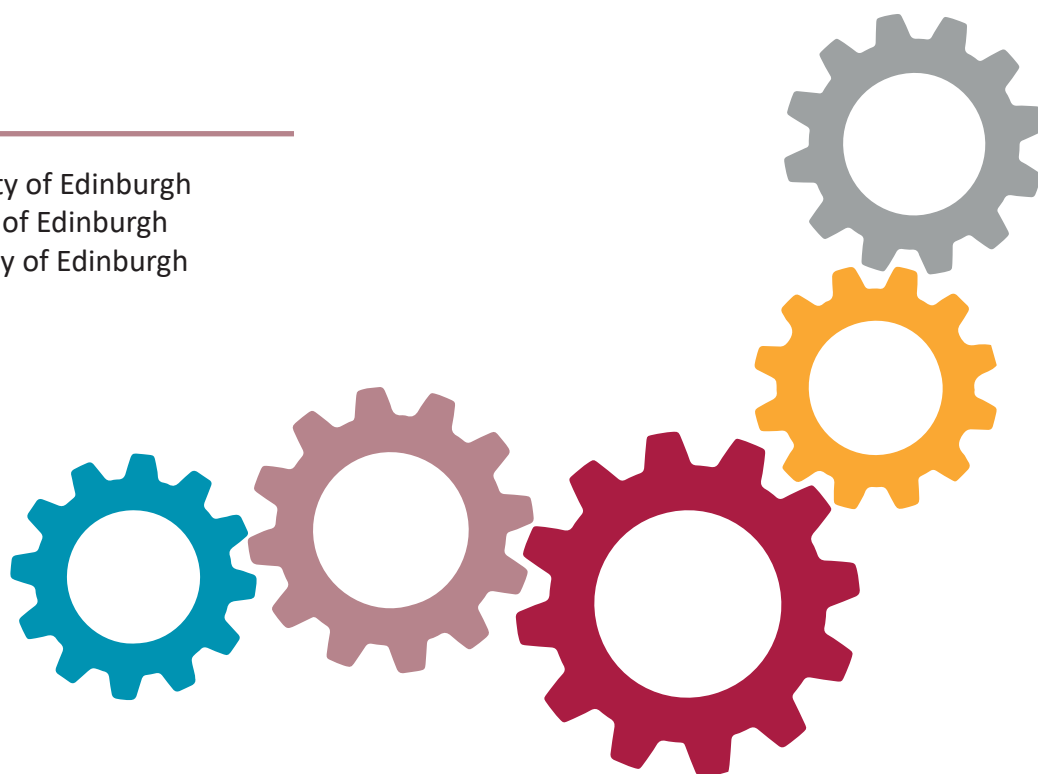
Adeline Abou-Ali, University of Barcelona  
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