Université Grenoble Alpes

Doctoral College

Competency Guide

October 2023

UGA COLLÈGE DOCTORAL

Capitalise on your PhD competencies!

A guide to highlighting the competencies acquired during your PhD to actively pursue your career goals.

01

Why a competency-based approach?

The self-assessment approach presented here **is designed to help you think about the range of competencies you have gained during your PhD.** It will help you demonstrate and highlight these competencies as you pursue your career goals. It can also help you identify how these competencies allow you to expand your career opportunities after your PhD.

There is often a **disconnect** between what PhD graduates feel that they have acquired – typically, advanced knowledge and methods in a specialised field – and what they have actually acquired, which is what interests recruiters, whether inside or outside academia. All PhD graduates have experienced research-based learning and are therefore able to handle complex problems, propose innovative solutions, establish a strict protocol, conduct literature surveys, adapt their language to a specific audience, and have also developed a wide range of soft skills.

▲ What exactly is meant by competency?

The notion of "competency" has been studied in educational science. Several theoretical approaches to this notion have been proposed, for example the one inspired by the work of Jacques Tardif (2006): **a complex know-how that draws on and combines resources (knowledge, skills and attitudes) from various disciplinary fields**[1].
From the perspective of the business world, one definition of "competency" is **the ability to carry out an assignment within a professional activity.**

The RNCP, the **French National Register of Professional Qualifications,** has identified a set of PhD competencies that are transferable to a wide range of careers (Decree of 22 February 2019). They are divided into six main **areas**: "Homogeneous and consistent sets contributing to the autonomous fulfilment of a professional activity"[2]. These are not independent areas: they provide insights for thinking about your career path, in line with recruiters' expectations.

// The 6 Competency Areas developed during a PhD identified by the RNCP (complete version at end of document)

1 L'évaluation des compétences. Chenelière éducation, 2006 p104
2 https://www.francecompetences.fr/fiche/certifications-le-role-de-france-competences/

UGA is also committed to an assessment of PhD competencies against a general background of R&D activities and management that includes:

· **Social and environmental responsibility (SER) issues:**[3] to ensure that, as future R&D players trained through research, PhD graduates are able to contribute to and promote sustainable development[4] and the ecological transition in its various aspects, including standards of professional conduct, ethics and integrity issues.

· **Professional interpersonal skills:** qualities that reflect how someone behaves in the workplace (ex: ability to adapt, autonomy, curiosity, openness, commitment, perseverance). They may also be referred to as behavioural intelligence or soft skills. It is important to note that these skills are not necessarily innate; they may be acquired, and they are interpersonal skills in the workplace, meaning that they may be different than those you may display in your private life.

▲ A self-assessment approach: the importance of "talking about" your skills

The goal is not to "tick" all the boxes by the end of your PhD. It is rather to **reach an overall balance,** to acquire a minimum level of competence in each area, which you may continue to develop throughout your career. Nor is the goal to complete this competency assessment as quickly as possible, thinking that since you have a PhD, you have competencies in all of the areas, and hastily identify just a few examples. On the contrary, the idea is **to take the time to develop a way of talking about yourself professionally,** and in a **persuasive way,** with all professional contacts, not just recruiters. This will be useful throughout your career.

There are no right or wrong answers; it is an **individual self-assessment** to help you think about your strengths and areas for improvement and determine your career goals and the best ways to achieve them. This means that each self-assessment is **unique.** Moreover, a situation you have experienced may involve different competency areas. It is how you use this experience to illustrate your assessment that makes the process effective.

The self-assessment document you will write is a way for you to **demonstrate your competencies,** and must be based on factual evidence-based information explaining how you have reached a given level of competency development. It also helps you plan how to further develop your competencies in the future.

This self-assessment is part of an **overall development path:** competencies may be acquired to various degrees:

· **novice:** you have heard about …

· **proficient:** you are able to, you can implement …

· **expert:** you have gained proficiency and experience, you can pass on your expertise and train someone in…

It is important to be as objective and honest as possible in determining your level of competency.

Remember to talk about your competencies and experiences **as if you were speaking to someone outside of academia** (friends or recruiters), so as to be persuasive.

3 Social and Environmental Responsibility is one of our institution's major strategic focuses. For more information see the SER Blueprint – Université Grenoble Alpes 2022
https://www.univ-grenoble-alpes.fr/universite/engagements/engagements-societaux-et-environnementaux/schema-directeur-de-la-responsabilite-societale-et-environnementale-de-l-universite-grenoble-alpes-juin-2021-940233.kjsp?RH=1573210606572

4 https://www.agenda-2030.fr/agenda-2030/presentation/article/presentation-origines-et-principes

EXAMPLE

You have published or co-published a research paper

In principle, writing a paper involves Area 3 (“implementing all publication processes”) and Area 1 (“review the state of knowledge and limitations”).
To highlight and promote your experience with recruiters, especially if they are outside of academia, you must provide factual details to show what you have learnt through experience in terms of competencies. For example:

- **By whom was the publication material chosen and based on what criteria?**

Was it in France or abroad, why, and what were the implications for you (language, reputation, difficulty or ease of getting published, other)

- **How did you adapt the research goal or question to the journal’s positioning?**

If this involved stepping aside from the work you were doing on your thesis, did it lead you to overcome difficulties or constraints (time, topic, method, experiments, length, or other)?

- **Were you the only author, or was the paper co-authored?** In the latter case, what was your role, who was the leader, what was it like to work with a group and how was work organised, what did you learn from this experience?
- **What was your experience of the reviews: were they constructive in their recommendations and criticism?** How did you handle criticism, did you have the opportunity to discuss points raised with others around you, what did they have to say? What did you learn for the day you were/will be a reviewer yourself, and more broadly, for critical writing?
- **How did you manage work on the revised version** (managing files, changes, taking into account the reviewers’ opinions)? Did this experience help you improve your methodology?
- **Did you acquire competencies related to the structure of a research paper:** adapting a research question, being persuasive about an innovative contribution, providing evidence that the research protocol is rigorous, managing a style guide, bibliographical standard or other guidelines? How can this help you in the future, even outside of academia?
- **If it was not your first publishing experience,** how did this experience help you develop competencies? How was it different to former publishing experiences, in terms of the journal, context or your own enhanced competencies?
- **Did you make your pre-prints or the paper available in open access?** How? Did you learn about open science issues? Provide details.
- **Did you face issues related to professional conduct, scientific integrity,** confidentiality management, SER or other issues? Did you have to adapt to goals or constraints identified by your employer?
- **Did you take part in training** (before or after publishing) that helped you develop a competency? In what ways was it useful? Have you identified other training needs that could help you go further?

Such an example therefore provides an opportunity to identify your strengths and areas for improvement well beyond the scientific content involved in the project.

▲ How to use this guide

This guide is designed to help you **launch your self-assessment,** to break with the idea of a researcher who is simply a leading specialist in his or her research field, and help you think about the many other strengths you have developed, and identify your real positioning.

It includes a **two-page** overview of each competency area, presenting the rationale behind the area, the RNCP description of competencies and a list of helpful tools: examples of these competencies that may help you reflect on your experience, tips for how to talk about them, and examples of professional situations you may have encountered. You will be asked to talk about these competencies during professional and job interviews. Your ability to present them effectively will determine how well others understand them and is therefore critical to your advancement in the workplace or to pass a job interview successfully. You will need to provide proof of your competencies, factual information and demonstrable evidence.

This process will help you enhance your portfolio.

▲ When and how to start the self-assessment?

The first step, right from the start of your thesis, is to take a look at the competency framework presented in this guide and start thinking about the competencies you have already acquired.

You will have more experience to draw on for your self-assessment over the course of the first year of your thesis.

We urge you to **assess your competencies at least once a year,** for example, ahead of the Individual Monitoring Committee (CSI), and to take advantage of cross-disciplinary training and career programs offered by the Doctoral College to advance in your thinking.

This assessment must both serve an **interim review,** and help you **look to** the near future, to better identify your goals for training and experience for the coming year – or for your career at the end of your PhD.

▲ What about extra-curricular activities?

All relevant experience may be included in your self-assessment. We advise you to clearly distinguish between:

- **activities which are not mandatory during a PhD, but which actively contribute to your professional training:** recognised by the Doctoral College or Doctoral School, they count towards the overall number of training hours you need to do during your PhD. Examples include a commitment as an elected PhD representative, an outreach activity for the general public for the Nuit des Chercheurs (Researchers' Night) or organising a scientific event.
- other **activities** you may take part in **outside the scope of your PhD** (including those completed prior to your PhD): they demonstrate your commitment to the community as a whole, and may therefore be highlighted in relation to a competency included in the framework (Areas 5 and 6 especially). For example, volunteering in a sports club or charities, or any experience that has raised your awareness of environmental issues, team leading or project management, may be relevant.

Once again, **what is important is how you think about and consider the example.**

SOME ACRONYMS

CED: UGA Doctoral College
CERGA: Grenoble Alpes Research Ethics Committee
CNIS: The French National Council for Statistical Information
CNIL: French Data Protection Authority
CPP: Committee for Personal Protection (Ethics Committee)
CSI: Individual Monitoring Committee
ED: Doctoral School
RNCP: The French National Register of Professional Qualifications
SER: Social and Environmental Responsibility

02
the 6 Competency Areas defined by the RNCP

B1 Design and development of an R&D foresight and road-mapping strategy

- C1 | Acquire a general and specific scientific expertise in a given field of research
- C2 | Review the state of knowledge and its limitations in a given sector of activity, at the local, national and international levels
- C3 | Identify and solve new, complex problems involving several fields, drawing on highly advanced knowledge and expertise
- C4 | Identify opportunities for conceptual breakthroughs and develop strategies for innovation in a professional sector
- C5 | Make innovative contributions in high-level discussions and in international contexts
- C6 | Constantly adapt to the research and innovation needs of a professional sector

B2 Implementation of an R&D foresight and road-mapping strategy

- C1 | Implement research methods and tools related to innovation
- C2 | Implement the principles, tools and procedures for assessing costs and financing an innovation or R&D project
- C3 | Ensure the validity of research as well as its ethics and confidentiality implementing the appropriate control procedures
- C4 | Manage the time constraints of study, innovation or R&D activities
- C5 | Implement factors for engagement, risk management and autonomy needed to finalise an R&D, study or innovation project

B3 Commercialisation and transfer of the results of an R&D foresight and road-mapping strategy

- C1 | Navigate transfer issues in order to use and commercialise results or products in economic or social sectors
- C2 | Comply with intellectual and industrial property rules within a given sector
- C3 | Respect professional conduct and ethical principles relating to integrity of research and its potential impacts
- C4 | Implement all international publishing processes to promote new knowledge and know-how
- C5 | Use open data communication techniques to promote methods and results

B4 Monitoring international scientific and technological developments

- C1 | Acquire, synthesise and analyse groundbreaking scientific and technological data and information on an international level
- C2 | Develop the ability to understand, take a step back from and critically consider all of the cutting-edge information available
- C3 | Go beyond the boundaries of available data and knowledge by considering various fields of knowledge or other professional sectors
- C4 | Develop global networks for scientific and professional cooperation
- C5 | Demonstrate the curiosity, adaptability and openness needed to learn and cultivate a high level of international and general knowledge

B5 Teaching and dissemination of scientific and technical culture

- C1 | Summarise and discuss scientific and technological research in several languages for various audiences or publications, through both written and oral communication
- C2 | Teach and train diverse audiences about advanced concepts, tools and methods
- C3 | Adapt to a varied audience to communicate and promote cutting-edge concepts and approaches

B6 Management of teams dedicated to R&D foresight and road-mapping activities

- C1 | Lead and coordinate a team to carry out complex or interdisciplinary tasks
- C2 | Identify skills gaps within a team and help recruit or seek service providers
- C3 | Take steps to foster an entrepreneurial mindset in a team
- C4 | Identify key resources for a team and support growth through training and personal development
- C5 | Assess individual and team work on projects and goals

B1 Design and development of an R&D foresight and road-mapping strategy

This expertise is important for employers: it implies strong knowledge in your field of speciality and, on a broader level, the ability to seek out various information sources, identify points of contention, break down a complex problem and provide a summary/hierarchical argument. It implies adapting to an objective and to your audience, and evolves over time.

RNCP

DESIGN AND DEVELOPMENT OF AN R&D FORESIGHT AND ROAD-MAPPING STRATEGY

- **Acquire a general and specific scientific expertise** in a given field of research
- **Review the state of knowledge and its limitations** in a given sector of activity, at the local, national and international levels
- **Identify and solve new, complex problems** involving several fields, drawing on highly advanced knowledge and expertise
- **Identify opportunities for conceptual breakthroughs** and develop strategies for innovation in a professional sector
- **Make innovative contributions** in high-level discussions and in international contexts
- **Constantly adapt to** research and innovation needs of a professional sector

Examples of competencies

- Develop a concise, representative state of the art/bibliography on a topic, taking into account the timetable, objective and intended audience
- Identify different approaches and their limitations, and situate your personal expertise
- Describe your personal contribution (incremental or breakthrough approach)
- Choose a rigorous scientific methodology and explain your choice
- Identify a need for training or collaboration to overcome an obstacle

- SER: identify issues related to combating climate change and favouring environmental protection and propose innovative solutions
- Soft skills: curiosity, ability to break with existing methods to propose an innovative approach, ability to adapt (understand and effectively respond to a need)

B1 | Design and development of an R&D foresight and road-mapping strategy

TO HELP GET YOU THINKING...

For each competency you feel you have developed:

- Would you say that you have simply been introduced to it (you have heard about X), or that you have achieved proficiency (you are able to do it), or achieved an advanced level (you could pass on this competency and train someone)? Explain fully, with factual details to support your assessment.
- Based on a professional situation/situations you've experienced, explain in detail
  - how this situation helped you develop this competency (provide factual details, evidence)
  - what you found easy/difficult: did you need help? For what, precisely, and would you still need help today?
  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia (friends or recruiters) in a convincing way? What would you highlight?

▲ What examples of professional situations can you provide?

- Have you prepared a bibliography? Written a state of the art for your thesis, or for a paper or publication?
- Have you written a thesis topic? Responded to a call for projects? Designed a strict scientific protocol from scratch to test your hypotheses?
- Is your thesis topic directly related to a social or environmental responsibility issue? If not, does it take these issues into account?
- Have you had the opportunity to explain your field of expertise to people with varying degrees of expertise (e.g. at a break during a symposium or with friends), and explain why it is useful?
- Have you had the opportunity to position your research in relation to other specialists in the field, and identify innovative aspects? (e.g. abstract, paper, publication; work within a team)
- Have you identified the main forums for discussion in France and internationally?
- Other

▲ Have you completed training that has helped you strengthen your competency in this area? If so, how?

- Think about training courses completed through the College, offered or recognised by the Doctoral School or in-house training offered by your laboratory or employer
- Explain; take a look at the training courses catalogue for the College and your Doctoral School

TO HELP YOU PREPARE YOUR PERIODICAL ASSESSMENT FOR THIS AREA

→ **Identify a strength** you have acquired this year

→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)

B2 Implementation of an R&D foresight and road-mapping strategy

This area focuses on the experimentation/application stage of the research project: collecting and managing data, conducting laboratory experiments and ensuring reproducibility, managing resources and expenses, handling the unexpected and learning by trial and error.

RNCP

IMPLEMENTATION OF AN R&D FORESIGHT AND ROAD-MAPPING STRATEGY

- **Implement research methods and tools** related to innovation
- **Implement the principles, tools and procedures for assessing costs and financing** an innovation or R&D project
- **Ensure the validity, ethics and confidentiality of research,** implementing the appropriate control procedures
- **Manage the time constraints** of study, innovation or R&D activities
- **Implement factors for engagement, risk management and autonomy** needed to finalise an R&D, study or innovation project

Examples of competencies

- Adhere to a methodological protocol and adjust it in response to unforeseen circumstances
- Organise data management: management plan, reports, archiving, ensuring confidentiality and reproducibility rules
- Assess the validity of your approach and identify risks, propose alternatives
- Identify funding sources and take into account possible financial constraints
- Recognise limitations, ask for help: develop an ability to identify your strengths while working in a team and make sure that others recognise them
- SER: develop ethical, responsible methods and tools, adopt an approach compatible with societal and environmental issues
- Soft skills: adapt to constraints related to deadlines, resources (financial, human and material), confidentiality; develop an ability to bounce back after relative failure (an inte gral part of research) and criticism; express constructive criticism; manage your priorities, remain committed and motivated

B2 Implementation of an R&D foresight and road-mapping strategy

TO HELP GET YOU THINKING...

For each competency you feel you have developed:

- Would you say that you have simply been introduced to it (you have heard about X), or that you have achieved proficiency (you are able to do it), or or achieved an advanced level (you could pass on this competency and train someone)? Explain fully, with factual details to support your assessment.
- Based on a professional situation/situations you've experienced, explain in detail
  - how this situation helped you develop this competency (provide factual details, evidence)
  - what you found easy/difficult: did you need help? For what, precisely, and would you still need help today?
  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia

▲ What examples of professional situations can you provide?

- Have you experienced the challenges of managing a tight schedule? On what occasion?
- Have you taken part in developing specifications and setting a budget? In submitting a project to an ethics or professional conduct committee (CPP, CNIL, CERGA, CNIS)?
- Have you conducted experiments on living beings and had to manage ethical aspects (e.g. biology research charter on animal and human experimentation)?
- Have you developed an eco-friendly digital practice?
- Have you had the opportunity to set up, or create a quality control process?
- Have you had to handle confidentiality issues (e.g. Zone à Régime Restrictif (ZRR), Cifre contract etc.) or copyright issues?
- Have you had to handle negative or unexpected outcomes (such as results of experiments, rejected publications)?
- IMC: How did you manage this "project" (timeline, contacts, preparation)? What were the strengths and weaknesses? How did you manage the discussion during the IMC? How did you handle suggestions or possible criticism?

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▲ Have you completed training that has helped you strengthen your competency in this area? If so, how?

- Think about training courses completed through the College, offered or recognised by the Doctoral School or in-house training offered by your laboratory or employer
- Explain; see the course catalogue for the College and your Doctoral School

TO HELP YOU PREPARE YOUR PERIODICAL ASSESSMENT FOR THIS AREA

→ **Identify a strength** you have acquired this year

→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)

B3 Commercialisation and transfer of the results of an R&D foresight and road-mapping strategy

Commercialisation is the process of "making research results, knowledge and skills usable or marketable". (Conseil National d'Evaluation de l'enseignement supérieur).
The focus is therefore on transferring results to socioeconomic and cultural sectors, and the dissemination of knowledge through expertise, scientific publishing and open science.

RNCP

COMMERCIALISATION AND TRANSFER OF THE RESULTS OF AN R&D FORESIGHT AND ROAD-MAPPING STRATEGY

- **Navigate transfer issues** in order to use and commercialise results or products in economic or social sectors
- **Comply with intellectual and industrial property rules** within a given sector
- **Respect professional conduct and ethical principles** relating to integrity of research and its potential impacts
- **Implement all international publishing processes** to promote new knowledge and know-how
- **Use open data communication techniques** to promote methods and results

Examples of competencies

- Identify potential transfers of results; marketable objects; copyrightable knowledge; applications of research findings
- Understand the value of your results and work, and your role in a team
- Give a structured presentation / summary tailored to a specific aim (e.g. dissemination, publication, commercialisation, seeking partners and funding)
- Analyse your project through the lens of the intellectual property rules for the sector; Apply the sector's standards of professional conduct and integrity rules (e.g. in expertise, partnership and publishing activities), and confidentiality rules
- SER: analyse your project through the lens of socioeconomic and environmental impacts, and apply the relevant ethical principles
- Soft skills: having the ability to convince others, daring to express thoughts that may be judged and criticised, having the ability to express constructive criticism in a positive way

B3 Commercialisation and transfer of the results of an R&D foresight and road-mapping strategy

TO HELP GET YOU THINKING...

For each competency you feel you have developed:

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- Based on a professional situation/situations you've experienced, explain in detail
  - how this situation helped you develop this competency (provide factual details, evidence)
  - what you found easy/difficult: did you need help? For what, precisely, and would you still need help today?
  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia

▲ What examples of professional situations can you provide?

- Have you been involved in partnership agreements (research and/or public), participatory research (e.g. citizen involvement)? What did you get out of this experience? What did you contribute?
- Have you carried out expert or consulting missions within or outside the academic environment?
- Have you presented your research at symposia or conferences? How did you feel when questions were asked? How did you respond? Have you published in an international or national context? Have you been the driving force in writing a paper?
- Have you sought to publish in open access (e.g. HAL, laboratory notebooks, data deposit platforms, data sets)
- Have you had to convince a partner or other stakeholders about your SER impact or the ethical conduct of your research?

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▲ Have you completed training that has helped you strengthen your competency in this area? If so, how?

- Think about training courses completed through the College, offered or recognised by the Doctoral School or in-house training offered by your laboratory or employer
- Explain; see the course catalogue for the College and your Doctoral School

TO HELP YOU PREPARE YOUR PERIODICAL ASSESSMENT FOR THIS AREA

→ **Identify a strength** you have acquired this year

→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)

B4 Monitoring international scientific and technological developments

The ability to effectively monitor scientific and technological developments is an important asset for many R&D organisations, whether public or private. This means constantly keeping up with and managing the latest advances and proactively considering ways to propose opportunities for innovation.

RNCP

MONITORING INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL DEVELOPMENTS

- **Acquire, synthesise and analyse** groundbreaking scientific and technological data and information on an international level
- **Develop the ability to understand, take a step back from and critically consider** all of the cutting-edge information available
- **Go beyond the boundaries of available data and knowledge** by considering various fields of knowledge or other professional sectors
- **Develop global networks** for scientific and professional cooperation
- **Demonstrate the curiosity, adaptability and openness needed** to learn and cultivate

Examples of competencies

- Collect information in a scientific way (rigorous, representative of research, with the necessary critical distance and without being overwhelmed by the vast amount of data available) on any topic, and keep it up to date
- Set aside part of your working time to monitor relevant literature; Identify what training you need
- Use recent data to develop your expertise
- Identify what works well in another project or in a competitor's proposal and use it for inspiration, without violating intellectual property rights. Identify your own assets in comparison with another project and present them adjusting to the person you are addressing

- SER: monitor and reflect critically on the SER issues raised ty the available knowledge, as well as on the social and environmental impact of R&D activities
- Soft skills: show curiosity and openness; have a positive attitude about how to advance; show an ability to work autonomously

B4 Monitoring international scientific and technological developments

TO HELP GET YOU THINKING...

For each competency you feel you have developed:

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  - what you found easy/difficult: did you need help? For what, precisely, and would you still need help today?
  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia

▲ What examples of professional situations can you provide?

- Have you carried out a form of literature/bibliographical monitoring during your PhD? How? Did you include very recent contributions based on ongoing research?
- Have you identified the major sources in your field (cutting-edge researchers, laboratories or journals)? Has this helped you learn and progress?
- Have you identified gaps in your field that have led you to step outside of the boundaries of your discipline?
- Have you identified the main disciplinary and transdisciplinary forums for discussion, trade shows and other professional communities that are helpful for your project?
- Have you taken part in multidisciplinary collaborations or projects related to SER?
- Have you created or grown your professional network (within or outside your research project partners)? Have you been a PhD representative? Have you completed a research residency in another laboratory? Are you a member of a learned society? Do you share your CV?

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▲ Have you completed training that has helped you strengthen your competency in this area? If so, how?

- Think about training courses completed through the College, offered or recognised by the Doctoral School or in-house training offered by your laboratory or employer
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TO HELP YOU PREPARE YOUR PERIODICAL ASSESSMENT FOR THIS AREA

→ **Identify a strength** you have acquired this year

→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)

B5 Teaching and dissemination of scientific and technical culture

This area focuses on disseminating scientific and technical knowledge through training and outreach, for the general public and all kinds of audiences with vastly different levels of knowledge in your field of expertise.

RNCP

TEACHING AND DISSEMINATION OF SCIENTIFIC AND TECHNICAL CULTURE

- **Summarise and discuss** scientific and technological research in several languages for various audiences or publications, through both written and oral communication
- **Teach and train diverse audiences** about advanced concepts, tools and methods
- **Adapt to a varied audience** to communicate and promote cutting-edge concepts and approaches

Examples of competencies

- Identify key platforms for disseminating your research
- Identify needs and expectations of readers or audiences; structure convincing oral and written communication, taking into account their needs and expectations without introducing false ideas, and tailoring your vocabulary to your audience
- Adopt an educational discourse that makes people want to get involved and learn more
- Manage the heterogeneity of the target audience, in terms of your aims and approach

- SER: promote responsible research; adopt an inclusive practice ensuring equal access and combating discrimination
- Soft skills: create a positive learning environment for your audience, help them gain confidence

B5 Teaching and dissemination of scientific and technical culture

TO HELP GET YOU THINKING...

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  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia

▲ What examples of professional situations can you provide?

- Have you published in English? Have you communicated in English in front of an audience of native or non-native English speakers? Have you interacted in English or French with non-French speakers?
- Have you had the opportunity to train someone, whether informally or in a more institutional setting? (e.g. teaching, forum on software)
- Have you presented your research at a team meeting or seminar, in which all of the participants were not specialists of your topic?
- Have you published materials for the "general public" (such as a newsletter, newspaper or scientific outreach magazine)?
- Have you taken part in outreach events for the general public (such as MT180, Nuit des Chercheurs (Researchers' Night), Science Festival, etc.)?
- Have you helped raise awareness of SER issues among the general public? Have you promoted an innovation or a finding from your field that allows for greater inclusion or has a positive impact on the environment or biodiversity?

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→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)

B6 Management of teams dedicated to R&D foresight and road-mapping activities

Here, the notion of "management" should be understood in a broad sense: it can involve managing a team or an individual – another PhD student, an intern, a technician or someone outside academia. You may draw on your personal management experience or reflect critically on your experience being managed (see "novice" below).
Employers draw a strong distinction between "management" (responsibility for the activity and its successful implementation, decision-making) and "leadership" (ability to bring people together, inspire, motivate).

RNCP

MANAGEMENT OF TEAMS DEDICATED TO R&D FORESIGHT AND ROAD-MAPPING ACTIVITIES

- **Lead and coordinate a team** to carry out complex or interdisciplinary tasks
- **Identify skills gaps** within a team and help recruit or seek service providers
- **Take steps to foster a entrepreneurial mindset** in a team
- **Identify key resources** for a team and support growth through training and personal development
- **Assess individual and team work on projects and goals**

Examples of competencies

- Organise a collaborative timeline, regular updates, fostering a positive mindset; prioritise goals
- Acquire the ability to identify each team member's specific way of working, capitalising on their strengths and taking their limitations into consideration
- Acquire the ability to help team members fit into the project "culture" (respecting dead lines, communication methods etc.)
- Give everyone a role to foster engagement

- SER: uphold and promote equal opportunity, inclusion and efforts to combat discrimination: detect problematic situations (e.g. gender-based and sexual violence) and respond in a responsible way
- Soft skills: manage conflict through dialogue and understanding, encourage dialogue at all levels; distinguish between what is negotiable and non-negotiable

B6 | Management of teams dedicated to R&D foresight and road-mapping activities

TO HELP GET YOU THINKING...

For each competency you feel you have developed:

- Would you say that you have simply been introduced to it (you have heard about X), or that you have achieved proficiency (you are able to do it), or achieved an advanced level (you could pass on this competency and train someone)? Explain fully, with factual details to support your assessment.
- Based on a professional situation/situations you've experienced, explain in detail
  - how this situation helped you develop this competency (provide factual details, evidence)
  - what you found easy/difficult: did you need help? For what, precisely, and would you still need help today?
  - were you the leader, or did you follow others? If so, to what extent?
- How would you discuss this competency and these examples with people outside of academia (friends or recruiters) in a convincing way? What would you highlight?

▲ What examples of professional situations can you provide?

- Have you managed a person, team or group project? Have you had to assess each member's work in these groups and report on it?
- Have you been in a situation where there was a misunderstanding or conflict? How was it resolved? Were you directly responsible for resolving the problem?
- Have you helped organise a seminar, scientific event, and have you been a driving force in it at some point?
- Have you had to handle intercultural aspects in your activity?
- Are you involved in one of your university/laboratory/employer's decision-making bodies and do you contribute to its continuous improvement? (e.g. elected PhD representative for a laboratory, Doctoral School, Doctoral College, or other organisation, SER adviser)
- Have you been informed about the greenhouse gas assessment carried out by your laboratory? Did you take part in this assessment? Have you taken part in other collective environmentally-minded action (e.g. managing travel, reducing waste, purchasing policy, anti-waste practices)?
- Have you ever been in a situation where you had to take issues related to combating discrimination into consideration, and/or have you implemented a carefully considered inclusive approach?

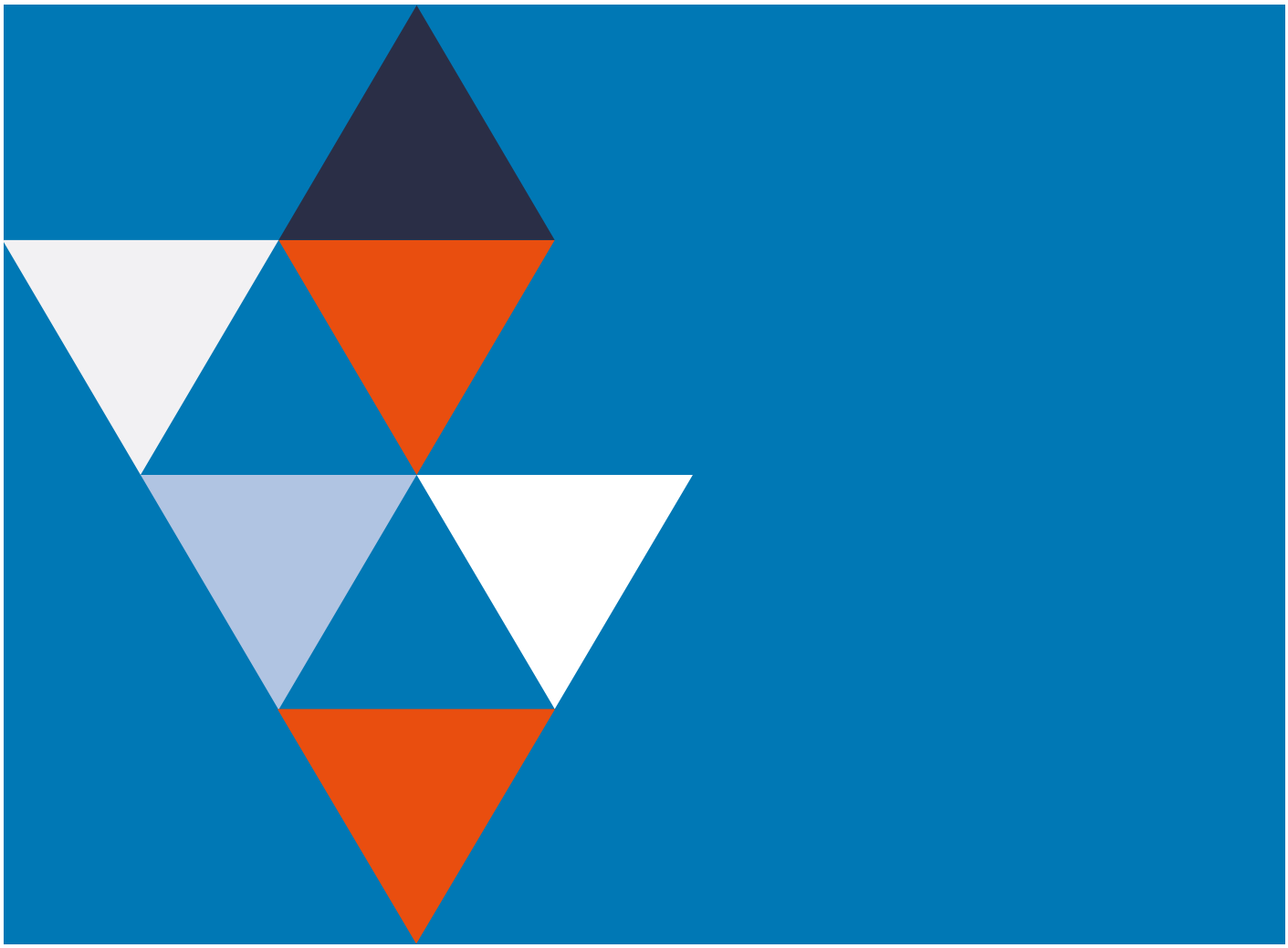
...

▲ Have you completed training that has helped you strengthen your competency in this area? If so, how?

- Think about training courses completed through the College, offered or recognised by the Doctoral School or in-house training offered by your laboratory or employer
- Explain; see the course catalogue for the College and your Doctoral School

TO HELP YOU PREPARE YOUR PERIODICAL ASSESSMENT FOR THIS AREA

→ **Identify a strength** you have acquired this year
→ **Identify an area you would like to improve** over the coming year and how you plan to do that (training, activities etc.)



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