B1 Design and development of a research, R&D and innovation strategy

This expertise is important for employers: it implies strong knowledge in your speciality field 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 A RESEARCH, R&D AND INNOVATION STRATEGY

- **Possess both general and specific scientific expertise** in a given field of research and work
- **Develop a research question** (problem posed, state of the art, identification of obstacles, planning of the research strategy)
- **Engage in reflexivity and critical thinking** in the different stages and activities
- **Take stock of the state and limits of knowledge and practices** within a given sector of activity, at local, national and international levels
- **Identify mechanisms to solve complex and new problems** involving multiple domains, using the most advanced knowledge and expertise
- **Identify potential for conceptual breakthroughs** and, where appropriate, devise innovative approaches for a professional sector
- **Identify the players involved in a given sector of activity** and situate their questions and approaches within this system of players
- **Comply with the rules of professional conduct and ethics** in relation to the integrity of work and the potential impacts on societies and planets

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 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)

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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 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, and 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; see the course catalogue for the College and your Doctoral School

TO HELP YOU PREPARE YOUR REGULAR 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 so (training, activities etc.)