# B2 Implementation of a research, R&D and innovation strategy

This area focuses on the experimentation, application, and research project stage: collecting and managing data, conducting laboratory experiments and ensuring reproducibility, managing resources and expenses, handling the unexpected and learning from failure.

**RNCP**

IMPLEMENTATION OF A RESEARCH, R&D AND INNOVATION STRATEGY

- **Implement research tools and methods,** where appropriate in connection with innovation
- **Apply the principles, tools and procedures for evaluating the costs and financing** of an innovation or R&D project
- **Implement appropriate control systems** to guarantee the validity, ethics and confidentiality of the work
- **Manage the financial, human and temporal resources** of research, R&D and innovation activities
- **Demonstrate the commitment, risk management and autonomy required** to complete a research, R&D or innovation project
- **Implement and manage the retention of data acquired** during the project in compliance with current standards
- **Offer innovative contributions in high-level exchanges in international contexts**

**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: ability to identify your strengths while working in a team and make sure that others recognise them

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- SER: develop ethical, responsible methods and tools, adopt an approach compatible with societal and environmental issues
- Soft skills: adapt to constraints related to timeline, resources (financial, human and material), confidentiality; ability to bounce back after relative failure (an integral part of research) and criticism; express constructive criticism; manage your priorities, remain committed and motivated

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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 experienced the challenges of mana-ging a tight schedule? On what occasion?
- Have you taken part in developing specifi-cations and setting a budget? In submitting a project to an ethics or professional conduct com-mittee (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" (time-line, contacts, preparation)? What were the stren-gths 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 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.)