The professional profile of PhD-holders

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Core business

PHASE 1 Skill development

During my PhD, I developed this skill by setting clear and realistic research objectives, improving my expertise in numerical simulation and polymer mechanics. I also strengthened my scientific writing, presentation, and data analysis skills through reports, publications, and conferences, while becoming more aware of the international dimension of research.

Sets his professional goals to be ambitious yet realistic.
Identifies and develops means to enhance his employability throughout his career; manages his professional development.
Broadens and upgrades his skillset, personal qualities and achievements.
Uses his networks to expand his scope of competence.
Knows how to transfer his expertise to other fields of activity.
Realizes the necessarily international dimension of his career path.
Accepts input from a mentor or coach to benefit his professional development.

PHASE 1 Evaluation

During my PhD, I regularly evaluated scientific literature and compared different numerical approaches to select appropriate methods for my research. I assessed the quality of my own results through discussions with my supervisors, CSI meetings, and peer review. Feedback from presentations and publications helped me improve my work and develop critical evaluation skills.

Evaluates the value of various documents concerning his field of expertise.
Is able to judge his own results in terms of both quality and added value.
Is willing to expose ideas to a critical audience; takes others' opinions of his work into account.
Is willing to evaluate the work of other contributors and provides reasoned, realistic judgments of others' work.

PHASE 1 Information management

I developed this skill by collecting, organizing, and managing scientific literature, experimental data, and numerical simulation results. I learned to use reference management tools and maintained well-structured datasets and documentation to ensure efficient access and reproducibility.

Knows how to review the state of the art (SOTA) in a scientific topic.
Makes efficient use of information-gathering methods, identifies pertinent resources, particularly bibliographic resources.
Masters web-based research (e.g., bibliographic databases, patent databases)
Knows how to judge the pertinence of information, critique sources and check source reliability.
Designs and implements information-gathering and management systems using suitable technology.
Addresses issues relating to the security and life cycle of data.

Seeks out support from experts in information and data management.

PHASE 1

Expertise and methods

I developed my professional skills by setting clear research objectives, improving my scientific writing and presentation abilities, and receiving regular feedback from my supervisors and committee members. Conferences and publications also broadened my professional perspective.

Masters the basic knowledge and key concepts of his field and knows their history and their significance.
Is familiar with recent progress in his field.
Can view his research activities within an international context.
Is familiar with the investigative methods and techniques of his field (including mathematics and statistics) and can explain why they are appropriate for a given purpose.
Is able to consider alternative methods and techniques.
Is able to formulate problems and hypotheses according to needs.
Defends his research findings in a constructive manner; provides evidence to support his ideas and proposals.
Organizes his presentations in a clear, informative and concise manner.

Personal and relational qualities

PHASE 1

Communication

I improved my communication skills by presenting my research during group meetings, CSI meetings and scientific discussions. I learned to explain complex simulation results more clearly and to adapt my explanations to different audiences.

Knows how to put together a persuasive presentation and communicate about his project or his activity.
Understands, interprets and communicates appropriately in a register suited to his aims and his audience.
Masters a range of communication tools.
Masters his online identity.
Contributes to the dissemination of knowledge within the company, and demonstrates effective teaching skills.
Is proficient in at least English and one other world language.

PHASE 1

Collaboration

I developed this skill through regular exchanges with my supervisors and colleagues. Their feedback helped me improve my modelling strategy, interpret results more carefully and better organize my research work.

Develops and maintains cooperative networks.
Knows how to build a professional network for his own and the company's benefit.
Is considered an authority in his field of expertise.
Is able to envisage his work in a partnership framework; evaluates the benefits and limitations of a partnership and identifies shared and conflicting interests.

PHASE 1

Analysis, synthesis and critical thinking

I developed this skill by analyzing simulation results, comparing them with experimental data and scientific literature, and identifying the main mechanisms behind the observed behaviour. This helped me draw clearer conclusions from complex data.

Analyzes his own findings and those of his peers.
Is able to synthesize; expresses key ideas clearly.

Can sort and rank information according to the goal.
Pursues his reasoning and hypotheses free of dogmatism or ideological bias.
Has the objectivity to consider various schools of thought; is able to modify his point of view.
Demonstrates intellectual rigor.

Business management and value creation

PHASE 1 Project management

Plans projects to meet goals in accordance with strategy and priorities, and taking quality, deadline and budget constraints into account.
Knows how to write specifications.
Is accountable for resources used and for meeting the deadlines and quality requirements of the deliverable.
Reacts efficiently and appropriately to change and unforeseen events.
Conducts his project within a framework of auditing and evaluation, deploying the appropriate systems.

PHASE 3 Managing change

Knows how to give meaning and perspective.
Knows how to manage the key stages of change and grief.
Promotes and encourages change, contributes to organizational change initiatives.

PHASE 2 Decision-making

Realizes that no one solution is perfect; can reconcile the imperatives of the market with the quest for technical optimization.
Is able to make choices and assume the consequences of his decisions; has the ability to reconsider decisions when needed.

Strategy and Leadership

PHASE 1 Strategy

Is aware of how his project fits into the organization's strategy and the strategic directions of the sector or field of activity.
Understands relationships between entities and individuals (the role and drivers of each).
Is able to identify influent people that support his projects and understand what they stand to gain from it.

PHASE 3 Leadership

Builds and maintains networks of skills, projects, teams and entities.
Helps others understand the meaning of their efforts.
Through his actions, inspires trust in the entity and in the projects he manages.
Enjoys international influence and reputation: decision-makers seek his input and advice.