The professional profile of PhD-holders

Fernanda Haga Kobiraki

Physical Chemistry of Materials

hagakobiraki@ics-cnrs.unistra.fr

Core business

PHASE 2 **Skill development**

1. Continually develops his managerial skills. 2. Sets his professional goals to be ambitious yet realistic. 3. Takes a critical look at his skills and experience and regularly fine-tunes his career goals.

Takes a critical look at his skills and experience and regularly fine-tunes his career goals.
Knows how to develop new skills to keep step with changing knowledge and needs.
Relies on advice from competent professionals (coaching) or experienced staff and takes their opinions into account; uses his networks to manage his career.
Is able to evolve gradually from technical expertise to managerial expertise.
Helps his staff develop their skills and networks and assists them in achieving career development goals.

PHASE 2 **Information management**

1. Develops new information management techniques. 2. Knows how to review the state of the art (SOTA) in a scientific topic.

Conducts advanced searches using a range of software solutions, resources and techniques, recognizing the advantages and limitations of each.
Masters the creation, organization, validation, sharing, storing and archiving of information and/or raw data and addresses the associated risks.
Understands the legal, ethical and security requirements of information management.
Is familiar with the value of, and uses, metadata.
Advises and assists his staff using information-gathering and management methods, critiquing sources and evaluating information and data.
Makes his staff aware of information security and legal and ethical requirements.

PHASE 1 **Expertise and methods**

1. Is familiar with recent progress in fields related to his own. 2. Can formulate complex problems that correspond to new challenges. 3. s able to consider alternative methods and techniques.

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 2 **Communication**

- oral presentation in conferences and group meetings - poster presentation during summer school and doctoral school events

Adapts his register to communicate with experts in other fields at both the national and international levels.
Masters communication techniques for various contexts and media.
Communicates effectively when addressing a diverse and lay audience.
Knows how to address a community of professionals.
Educates and trains his staff in the use of digital communication technologies.
Is able to work and lead a group in at least English and one other world language.

PHASE 1 **Collaboration**

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 2 **Open-mindedness and creativity**

1. Develops, takes ownership of and tests new ideas. 2. Seek challenge, be curious and engage in scientific questioning. 3. shows flexibility and open-mindedness

Explores related fields.
Conceives new projects to find answers to essential questions.
Encourages his staff to seek challenge, be curious and engage in scientific questioning.
Defines and carries out innovative interdisciplinary projects with the help of contributors from various backgrounds.
Serves as a vector of innovation, a realistic visionary, a constructive agitator.
Encourages creativity and innovation among his staff.
Has acquired professional experience abroad in a culture other than his own.

PHASE 2 **Commitment**

1. Strives for excellence; shows determination. 2. Learns from his mistakes and bounces back from failures. 3. Relies on the support and assistance of his peers. 3. Inspires the enthusiasm and commitment of his staff.

Can picture himself in other contexts; applies his commitment and motivation to other activities and fields of expertise.
Perseveres in his undertakings and projects; paves the way for other staff and supports them.
Inspires the enthusiasm and commitment of his staff.

PHASE 2 **Integrity**

1. Respects the standards and practices of his entity. 2. Demonstrates integrity in the processing and dissemination of data. 3. Declares any conflict of interest.

Builds staff awareness of the need for responsible conduct of research.
Advises his peers and staff concerning matters of respect, confidentiality, anonymity and intellectual property.

PHASE 3 **Listening and empathy**

1. Displays the capacity to understand and relate to the emotions, thoughts, and experiences of others. 2. Recognizes and acknowledges different perspectives, demonstrating empathy towards diverse backgrounds and viewpoints. 3. Expresses gratitude regularly.

Encourages his staff to exercise their listening abilities.
Establishes a mode of operation that allows everyone's contributions to be taken into account.

PHASE 1 **Negotiation**

Is able to detect people's unstated needs based on the requests they formulate.
Knows how to reconcile the drivers, requirements and constraints of his contacts to reach a consensus, and is able to gather all the information needed to do so.

Business management and value creation

PHASE 1 **Project management**

1. Plans projects to meet goals in accordance with strategy and priorities. 2. Recognizes good ideas and best practices, and identifies weaknesses and gaps.

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 1 **Decision-making**

Knows how to make appropriate decisions for each phase of his project.
Assists his line management in making major decisions (e.g., reporting, scenarios)

PHASE 2 **People management**

1. Offers support and assistance to colleagues, providing guidance and aid when required. 2. Knows how to be a team player to encourage, support, and recognize each player's contributions. 3. Knows how to delegate and monitor.

As a manager, makes appropriate use of the full spectrum of HR policies and management tools with regard to his teams (recruitment, promotion, evaluation, safety rules, principles of non-discrimination and diversity, etc.).
Puts together and directs a team, taking advantage of the strengths and skills of each member.
Has the ability to set objectives for his staff and evaluate their attainment.
Knows how to delegate and monitor.
Supports his staff; encourages them to become more autonomous and recognizes their commitment and results.
Ensures the collective success of projects.
Detects and nurtures the talents of his staff and supports to their professional development.
Knows how to deal with conflicts.

Involves his staff in decision-making.
Has his own management style.
Is able to define guidelines for safety and social responsibility.
Accepts responsibilities beyond his defined scope for the good of the organization as a whole.

PHASE 1 **Producing results**

Knows how to transform ideas into innovations.
Quickly deploys prototype and test phases; involves internal and external customers in these phases.
Learns the lessons of the initial tests.
Understands the policies and processes involved in publishing and exploiting research outcomes in his entity.
Is able to determine the most appropriate means of exploiting his results (e.g., patent, publication).

Strategy and Leadership

PHASE 2 **Strategy**

Observes his environment; recognizes discontinuities and micro-trends; detects weak signals.
Develops his own approach and shapes his understanding of the topic.
Encourages brainstorming and draws conclusions relevant to his area of activity.
Regularly produces documents of a forward-looking and strategic nature.
Makes sure that his activities contribute to the company's strategy and attainment of its objectives, and to the enrichment of his organization or sector of activity.
Is familiar with various innovation strategies.
Ensures that his staff is aware of and understands their environment and the importance of strategy.

PHASE 2 **Leadership**

Recognizes the need for and merits of collective effort; knows how to motivate and drive the entity he manages.
Is familiar with various leadership styles and adapts them to the specific project and the people on the team.
Is known within the company as a leader with the potential to promote ideas and initiatives and contribute effectively to their implementation.
Is able to impose his leadership in a competitive context.
Coordinates and mobilizes networks.
Encourages his staff to build a climate of trust.
Grooms his staff for future leadership roles.