

The professional profile of PhD-holders

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Core business

PHASE 1 Skill development

1. Identifies and develops means to enhance his employability throughout his career; manages his professional development. 2. Broadens and upgrades his skillset, personal qualities and achievements. 3. Uses his networks to expand his scope of competence. 4. Knows how to transfer his expertise to other fields of activity. 5. Realizes the necessarily international dimension of his career path. 6. Accepts input from a mentor or coach to benefit his professional development.

*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 Information management

1. Knows how to review the state of the art (SOTA) in a scientific topic. 2. Seeks out support from experts in information and data management.

*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 3 Expertise and methods

1. Masters the basic knowledge and key concepts of his field and knows their history and their significance. 2. Is familiar with recent progress in fields related to his own. 3. Can view his research activities within an international context. 4. Is able to formulate problems and hypotheses according to needs. 5. Organizes his presentations in a clear, informative and concise manner.

*Makes recognized contributions to the advancement of knowledge and innovation.
Is viewed as an international authority.
Possesses in-depth and comprehensive understanding of the strategic orientation of his field of*

expertise.
Sees opportunities for synergy among different sectors of activity.
Has the ability to develop new investigative methods.
Can work in an interdisciplinary setting.
Is able to devise and coordinate a collective work program focusing on new research problems.

Personal and relational qualities

PHASE 3 Communication

1. Adapts his register to communicate with experts in other fields at both the national and international levels. 2. Is able to work and lead a group in at least English and one other world language. 3. Uses national and/or international media. 4. Is asked to provide input on key questions in his area of expertise. 5. Chooses content, register and channels of communication appropriate for the circumstance or to serve his strategy.

*Is asked to provide input on key questions in his area of expertise.
Chooses content, register and channels of communication appropriate for the circumstance or to serve his strategy.
Uses national and/or international media.
Can manage and negotiate complex matters English and at least one other world.
Initiates and promotes actions to disseminate knowledge.*

PHASE 3 Collaboration

1. Develops and maintains cooperative networks. 2. Knows how to build a professional network for his own and the company's benefit.

*Can identify and mobilize various networks.
Sets up cooperations with a range of external organizations, at both national and international levels.*

PHASE 1 Analysis, synthesis and critical thinking

1. Analyzes his own findings and those of his peers. 2. Pursues his reasoning and hypotheses free of dogmatism or ideological bias. 3. Stimulates critical thinking among his peers and his staff. 4. Takes a pioneering approach.

*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.*

PHASE 3 Open-mindedness and creativity

1. Demonstrates an ability to acquire knowledge; shows flexibility and open-mindedness. Engages in interdisciplinary activities. 2. Interacts with and seeks the collaboration of professionals of different cultures; knows how to accommodate cultural differences. 3. Explores related fields. 4. Has acquired professional experience abroad in a culture other than his own. 5. Knows how to take calculated risks by questioning existing knowledge and methods. 6. Develops cultural diversity and intercultural dialogue within his teams.

*Extends his curiosity to fields apparently very remote from his own and draws from them substance to apply to his own field;
Knows how to take calculated risks by questioning existing knowledge and methods.
Encourages creativity in his peers and his staff.
Knows how to create a mindset conducive to creativity and innovation.*

*Deploys tools and methods that promote collective creativity.
Develops cultural diversity and intercultural dialogue within his teams.*

PHASE 3 Commitment

1. Recognizes and can clearly identify his sources of motivation. 2. Learns from his mistakes and bounces back from failures. 3. Has the ability to express a vision and enlist support, even during periods of adversity.

*Has the ability to express a vision and enlist support, even during periods of adversity.
Capitalizes on the enthusiasm and perseverance of the people he directs.*

PHASE 2 Integrity

1. Declares any conflict of interest. 2. Demonstrates integrity with respect to his partners' or competitors' contributions in accordance with intellectual property rules. 3. Honors his commitments and ensures the congruence between actions and words. 4. Advises his peers and staff concerning matters of respect, confidentiality, anonymity and intellectual property. 5. Builds staff awareness of the need for responsible conduct of research.

*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 Balance

1. Recognizes the limits of his knowledge, skills and expertise, and knows where to find support when needed. 2. Develops his strengths and knows how to correct his weaknesses by seeking the opinion of others. 3. Is aware of the need to reconcile career and personal life. 4. Develops mechanisms to cope with pressure and seeks support when needed.

*Helps to shape policies on work-life balance.
Is able to enhance the image and reputation of his entity and his staff.*

PHASE 1 Listening and empathy

1. Has the ability to listen in various situations. 2. Understands the needs and way of thinking of the people he deals with, including those with a different field of expertise, occupation and/or culture. 3. Expresses gratitude regularly. 4. Takes the needs of his staff into consideration, is sensitive to signs of stress and able to provide support and advice when needed.

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Understands the needs and way of thinking of the people he deals with, including those with a different field of expertise, occupation and/or culture.*

Business management and value creation

PHASE 2 Project management

*Is attentive to discontinuities, trends and weak signals; is prepared for the unexpected; identifies unforeseen opportunities in the project.
Recognizes good ideas and best practices, identifies weaknesses and gaps.
Considers and implements any necessary changes in objectives, organization, schedule, resources and quality requirements.
Knows how to drive his staff in compliance with scheduling and time constraints.
Utilizes a wide range of project management strategies; clarifies priorities and formalizes expectations.*

*Introduces quality systems.
Guides difficult, complex projects to successful completion; manages several projects simultaneously and efficiently; can intervene to conduct project audits and propose action plans to get projects back on track.
Provides support or assistance to his staff; takes over on projects that lack leadership.*

PHASE 1 Managing change

*Can adapt his approach and the project organization according to imperatives.
Adapts to changes and opportunities; knows how and where to find advice.*

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.*

PHASE 1 People management

*Has experience with teamwork; knows how to encourage, support and recognize the contributions of each player.
Knows how to be a team player.
Is able to win the trust of his peers and his line management.
Can report on his activities.
Supports his peers when needed and can provide assistance.
Understands human resources policies and management tools such as recruitment, evaluation, remuneration and strategic workforce planning.
Takes safety, social responsibility and labor law requirements into account.
Upholds rules on non-discrimination and equal opportunity among employees.*

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 1 Leadership

*Exercises leadership in connection with a project of which he is in charge.
Knows how to be persuasive and enlist support for a project
.Mobilizes skills for a project of which he is not in charge; manages human resources even when people do not officially report to him.
Builds alliances.
Establishes relationships based on trust.*

