The professional profile of PhD-holders

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Core business

PHASE 2 **Skill development**

I consistently evaluate my skills and experiences, adjusting my career goals as necessary to stay aligned with the evolving landscape of green traction technology. I am committed to lifelong learning and regularly acquire new skills to keep pace with the rapidly changing knowledge and needs in the field of green traction technology. I have the ability to transition from a technical expert to a managerial role.

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 1 **Evaluation**

Through my Ph.D. and research work at ALSTOM, I have had numerous opportunities to evaluate technical documents, judge my own work, present my ideas to critical audiences, and evaluate the work of others. These experiences have honed my skills in critical analysis, presentation, and peer-review. I continue to develop these skills as I progress in my career.

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 am proficient in reviewing the state of the art in green traction technology, keeping abreast of the latest advancements and trends in the field. I employ efficient information-gathering methods and identify relevant resources, with a particular focus on bibliographic resources. I am adept at web-based research, utilizing bibliographic and patent databases to gather and analyze information. I have the ability to assess the relevance of information, critique sources, and verify the reliability of sources.

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 2 Expertise and methods

I stay updated with the latest advancements in green traction technology and related fields, ensuring my research is informed by the most recent progress. I actively engage in dialogue and collaboration with experts from various disciplines, fostering a multidisciplinary approach to problem-solving. I take ownership of new research methods and techniques, incorporating them into my work to enhance the quality and impact of my research. I have the ability to formulate complex problems that correspond to new challenges in the field of green traction.

Is familiar with recent progress in fields related to his own.
Is able to engage in dialogue and collaboration with experts in other disciplines or fields of activity.
Takes ownership of new research methods and techniques.
Is able to document and evaluate his activities using statistical methods where applicable.
Can formulate complex problems that correspond to new challenges.
Is able to develop arguments in support of new projects.
Knows how to adapt his arguments to his audience.
Advises and assists his staff in making appropriate use of investigative methods, improving their performance and enhancing their skills.

Personal and relational qualities

PHASE 3 Communication

I am frequently consulted for my expert opinion on key issues in the field of green traction. I strategically select content, register, and communication channels that best serve my objectives and the specific circumstances. I utilize national and international media platforms to disseminate my research findings and contribute to the discourse on green traction technology. I am proficient in managing and negotiating complex matters in English and at least one other world language, enabling effective international collaboration. I initiate and promote actions to disseminate knowledge, contributing to the advancement of green traction technology and fostering a culture of learning and innovation.

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 2 Collaboration

I collaborate with individuals and teams who are key players in the global arena, contributing to the advancement of green traction technology on a global scale. I lead professional networks and facilitate dialogue between diverse entities, fostering collaboration and knowledge exchange. I am capable of co-producing results and innovations, working collaboratively with others to drive progress in the field of green traction.

Collaborates with people/teams who play a pivotal role on the global scale.
Leads networks and helps to institute dialogue between different entities.
Knows how to establish partnership relations with people working outside his field.
Has the ability to co-produce results and/or innovations.

PHASE 1 **Analysis, synthesis and critical thinking**

I critically analyze my own research findings as well as those of my peers, ensuring a comprehensive understanding of the field. I have the ability to synthesize complex information and express key ideas clearly, facilitating effective communication of research findings. I can sort and rank information according to the specific goal, ensuring that the most relevant and impo rtant information is prioritized. I pursue my reasoning and hypotheses with an open mind, free from dogmatism or ideological bias, ensuring objective and unbiased research.

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 2 **Open-mindedness and creativity**

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 1 **Commitment**

I actively explore fields related to green traction technology, broadening my knowledge and fostering interdisciplinary understanding. I conceive new projects aimed at answering essential questions in the field of green traction technology, driving innovation and progress. I define and carry out innovative interdisciplinary projects, collaborating with contributors from various backgrounds to leverage diverse perspectives

Recognizes and can clearly identify his sources of motivation.
Is able to sustain his commitment and motivation in the face of setbacks and adversity.
Deals efficiently with the routine aspects of his job.
Strives for excellence; shows determination.
Learns from his mistakes and bounces back from failures.
Relies on the support and assistance of his peers.

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 **Decision-making**

Is able to instigate and control major change.
Knows how to make decisions in an unstable and uncertain environment taking all technical, financial, human, organizational, political and other factors into account.

PHASE 2

People management

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 2

Producing results

Always seeks news ways to improve his performance and that of his staff.
Knows how to detect opportunities liable to lead to a commercial application.
Manages the transition from research to innovation: organizes processes and manages non-deterministic aspects.
Meets the challenges and opportunities for value creation in his field.
Deploys experimental platforms.

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.