# The professional profile of PhD-holders

# **Detjon Brahimaj**

# **Research and Development Manager**

I have a background in electronic & mechatronic engineering and a doctorate in Electrical Engineering with a focus on Multimodality. Excited to join a multidisciplinary R&D team and bring my expertise

detjon.brahimaj.etu@univ-lille.fr

Project multiTOUCH: https://multitouch-itn.eu/our-team

#### Core business

#### PHASE 3 Skill development

My objective is to fulfill all the points in phase 2 before the end of my Ph.D. My needs will be fulfilled by the produced PCDP required for the project, and through the managerial expertise I'm building by managing my Ph.D. and creating strategies and relationships with professionals around me. At this point in my Ph.D., I have fulfilled phase 1 thanks to collaborations with colleagues and secondments with researchers involved in the multitouch project. These collaborations improved my knowledge in fields such as psychophysics and Data science and push me to develop managerial skills by keeping track of the evolving project objectives.

Knows how to tap the extensive professional network that he has patiently built.

Knows how to appoint a team of high-potential staff to work with him.

Actively monitors new trends in both the field and the skills vital to developing new projects.

Continually develops his managerial skills.

#### PHASE 2 Evaluation

I have fulfilled phase 1, and I want to fulfill all the points in phase 2 before the end of my Ph.D. My needs were covered as an example by ATC6 but also by continuously searching news in my field in the scientific community and evaluating their importance to improve my work and my project. My attitude is to confront myself with others' opinions and consistently strengthen my ideas or change them on a critical-thinking basis. My needs will be covered by exposing my work at national/international conferences and evaluating hypotheses from the community in the field.

Knows how to regularly evaluate the progress, impact and outcomes of his staff's activities. Takes part in evaluating both internal and external projects.

Is able to evaluate hypotheses and concepts lying beyond his field of expertise.

Encourages his staff to take ownership of the evaluation process.

#### **PHASE 2** Information management

After fulfilling phase 1, my objective is to fulfill phase 2 before the end of my Ph.D. ATC4 and Local training improved my skill in reviewing my field's state of the art. Thanks to software like Zotero and Mendeley and web-based research (such as HAL repository), my attitude to continuously search for novelties in the scientific community helped me master and improve my information management skills. This made me familiar with the value of metadata and how to create, organize, validate, share, and store raw data or information being aware of the associated risks. Training courses on Ethics (offered by the project and the university) improved my knowledge and expertise in data protection and management, allowing me to help my colleagues be aware of legal and ethical requirements.

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 2 Expertise and methods

I have fulfilled phase 1, and my goal is to achieve phase 2 at the end of my Ph.D., contributing to the scientific community. My needs in phase 1 have been fulfilled with courses from multitouch that improved my knowledge of methods and techniques(ATC4-Fundamentals of haptics and multisensory integration, ATC7-Technology of multimodal interfaces) and by scientific events such as conferences or workshops that improved my ability to expose my works and the needs and challenges in the field as well as develop arguments in support of my project. This brought me to strengthen my ability to formulate problems and find solutions thanks to the experiments I have managed.

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 have fulfilled phase 1, and my goal is to achieve phase 2 and reach phase 3 at the end of my Ph.D. I have trained my communication skill through conferences, network meetings, and similar outreach activities (such as presenting in High schools or students that started university). I can communicate fluently in English, Italian, and French, but also in Albanian (my mother tongue). Furthermore, local training such as "Public speaking" improved my ability to communicate with different audiences and enhance my presentations.

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

Even if the steps in phase 1 are not fulfilled, I would like to fulfill phase 2 and reach phase 3 before the end of my Ph.D. Thanks to my experience during my Master (in a university team) and to secondments and team-working during my Ph.D., I have acquired experience in academic-industrial and industrial-industrial relationships strengthening my professional network.

Can identify and mobilize various networks.

Sets up cooperations with a range of external organizations, at both national and international levels.

#### **PHASE 2** Analysis, synthesis and critical thinking

I have fulfilled phase 1, and I want to fulfill phase 2 before the end of my Ph.D. ATC2 and ATC5 helped me fulfill my needs both with international conferences. Local training, such as "Experimental research and statistical methods for Human-Computer Interaction", will improve my analysis ability. In contrast, others, such as "Giving engaging scientific talks" or "writing scientific papers," will improve my ability to synthesize.

Knows how to apply his analyzing and synthesizing abilities to new fields.

Takes ownership of new analytical methods.

Has a novel and independent way of thinking and makes significant contributions.

Questions "business-as-usual" scenarios in his activity.

Advises his staff to help them develop their own capacities of analysis and synthesis.

Stimulates critical thinking among his peers and his staff.

## PHASE 2 Open-mindedness and creativity

I want to fulfill phase 2, and at the moment, I fulfilled phase 1's requirements. After my bachelor's in electronic engineering, I chose to move for my master in the field of mechatronics. I chose to do my master's in English, and I took the opportunity of an Erasmus program that brought me to Portugal. I chose to move to France for my Ph.D. to improve my skills, knowledge, and acquire a new language. All these choices brought me to be in touch with different cultures and researchers from different fields. Indeed, my thesis was an interdisciplinary project involving different expertise.

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

I have fulfilled phase 1, and I want to fulfill phase 2 before the end of my Ph.D. ATC 2 helped me fulfilling some of my needs. However, my attitude and motivation have always pushed me to commit myself to the maximum, working day and night if necessary to achieve my goals.

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

I have fulfilled phase 1, and I want to fulfill phase 2 before the end of my Ph.D. Writing the ethical protocol for my experiments improved my knowledge about confidentiality, anonymity, and how and why attention should be paid to these aspects. I shared my knowledge with my colleagues, advising them when needed.

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 2 Balance

My happiness represents my ability to balance my personal life with my professional career. I like to confront my ideas with others, and I'm ready to change to correct my weakness, knowing

the limit of my knowledge, skills, and expertise. These years of my Ph.D. helped me to develop mechanisms to cope with pressure and seek support from colleagues when needed. My will to have a great time with my kids strengthens my ability to separate my work and home environments, enjoying both at my maximum. I'm currently in phase 2, and I want to fulfill all the points before the end of my Ph.D.

Knows how to deal with strong opposition.

Draws on his strengths and transcends his weaknesses.

Knows how to cope with pressure generated by his career or his personal life.

Is able to keep his work and home environments separate.

#### PHASE 3 Listening and empathy

I'm currently in phase 2, but I want to reach phase 3 by the end of my Ph.D. My needs can be, in part fulfilled by the scheduled secondments and in part through the supervision of master students.

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

At this point in my Ph.D., my negotiation skill is improved, and I'm looking forward to fulfilling phase 1. I want to fulfill phase 1 completely.

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 2** Project management

During my Master's thesis, I demonstrate to manage different aspects of my project, including deadlines, constraints, and priorities, in accordance with my supervisor's strategy. Furthermore, during this experience, I learned how to translate requirements into specifications, considering and explaining why some requirements were not achievable. I also improved my resilience in facing unforeseen events typical of this project. During my Ph.D. I further improved my expertise and skills by considering changes in objectives, organization, or schedule and implementing solutions consequently based on project management strategies learned with ATCs and Local training. I have fulfilled phase 1, and I want to fulfill phase 2.

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 3 Managing change

I improved my ability to adapt to changes during my Bachelor's and Master's studies. In

particular, I developed this skill more thanks to my membership in a university team. During those years, I faced problems related to both administrative paperwork and technical issues. Similarly, I faced complex problems during my Ph.D. while defining objectives and understanding possible causes of failure, and acting consequently to meet my objectives. I want to pass from the actual phase 2 to phase 3.

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 Managing risks

I want to improve my ability to recognize and solve risks to reach and fulfill phase 2. ATC1, both with ATC2, helped me reaching phase 2. I want to fulfill all the points in phase 2 before the end of my Ph.D.

Analyzes and identifies the risks created by an activity.

Educates and trains staff and partners in the implementation of appropriate risk management procedures.

Takes social and environmental imperatives into account in the projects he manages. Educates and trains his staff in the imperatives of social and environmental responsibility.

#### **PHASE 3** Decision-making

Thanks to my university team and during my master's thesis experience, I had the possibility to make important decisions. In the first case, I decided with other colleagues on the project's schedule for the different phases, also making changes, when necessary, to achieve goals or respect deadlines. In the second case, my supervisor gave me a lot of freedom for the project and involved me in making crucial decisions. This skill does not require particular training, and my Ph.D. experience could be sufficient to improve my ability in decision-making. Furthermore, my attitude in the project allowed me to instigate during the decision process taking into account aspects such as organizational, human, or technical factors.

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 Obtaining and managing funding

I want to fulfill phase 1 and phase 2. My needs will be fulfilled during my Ph.D. since I'm in charge of managing my research budget. I have fulfilled phase 1 thanks, for example, to secondments, and I want to fulfill phase 2 before the end of my Ph.D.

Has the knowledge to manage the budgetary, financial and accounting aspects of his projects and activities.

Is able to make choices.

Is familiar with available sources of innovation funding and knows how to mobilize them.

Views his activity in the context of investment/return on investment.

Advises and guides his staff in the financing and budget follow-up of activities.

Advises and guides his staff in creating value and generating revenue and funding.

#### PHASE 2 People management

During my Master's, I participated in a university team for over 2 years. During this period, I learned and improved my teamwork ability by encouraging and supporting my colleagues while they were doing the same. As a team, we decided to produce a periodic report of our activities and implement a 'to be where is needed' strategy. Furthermore, I participate in the recruiting process being active in all the steps (recruiting, evaluating, choosing, etc.). Since no remuneration was involved, we aimed to find people with sufficient skills and curiosity. ATC1, with Local training and summer school, fulfilled my basic needs to reach phase 2. I want to fulfill phase 2 before the end of my Ph.D.

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

My needs are fulfilled through journal publications, conferences, workshops, and outreach activities. I have fulfilled phase 1 and part of phase 2 thanks to planned experiments and publications. My objective is to fulfill phase 2 before the end of my Ph.D.

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 nondeterministic aspects.

Meets the challenges and opportunities for value creation in his field.

Deploys experimental platforms.

#### PHASE 1 Intellectual and industrial property

I want to reach phase 1, passing from phase 0. ATC1, both with local training, helped me fulfilling some of my needs ("Patent Procedures and Rights"), making me aware such an example of controlling the results before publishing a paper.

Has basic knowledge of the rules of intellectual/industrial property and copyright as they apply to his own activities.

Understands the advantages and drawbacks of filing a patent.

Is aware of the importance of controlling the release of information.

#### PHASE 1 Customer focus

I want to fulfill all the steps of phase 1. Secondments in the private sector will help me fulfill phase 1

Is attentive to national and international markets; takes incoming and outgoing communication (suppliers, customers) into account.

Gathers information on the needs and expectations of internal and external customers.

Uses his technical expertise and familiarity with products to propose solutions tailored to customers.

Masters the basics of marketing.

# Strategy and Leadership

#### PHASE 2 Strategy

I have fulfilled phase 1, and I want to fulfill phase 2 before the end of my Ph.D. My needs for phase 1 are fulfilled through the secondments and decisions I have taken during my Ph.D. project. ATC, such as Management & Entrepreneurship, gave me the tools to develop a strong

strategy. Moreover, the relationships I created with colleagues and other professionals helped me to contribute to the project's strategy by observing trends and discontinuities.

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

During my Master, I participate in the foundation and further development of a University team. This helped me create a good network, build alliances, and establish trust-based relationships. Even if I wasn't in charge of the project, I actively participated in the recruiting process, evaluating the candidates and choosing future members. I fulfilled phase 1 and I want to fulfill phase 2 before the end of my Ph.D. Local training such as "Revealing the entrepreneurial potential of Ph.D. students" and ATC such as "Management & Entrepreneurship" improved my expertise and helped me fulfill phase 1. I'm looking forward to fulfill phase 2.

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.

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