MEICOM

ITNA TRAINING NEEDS ANALYSIS

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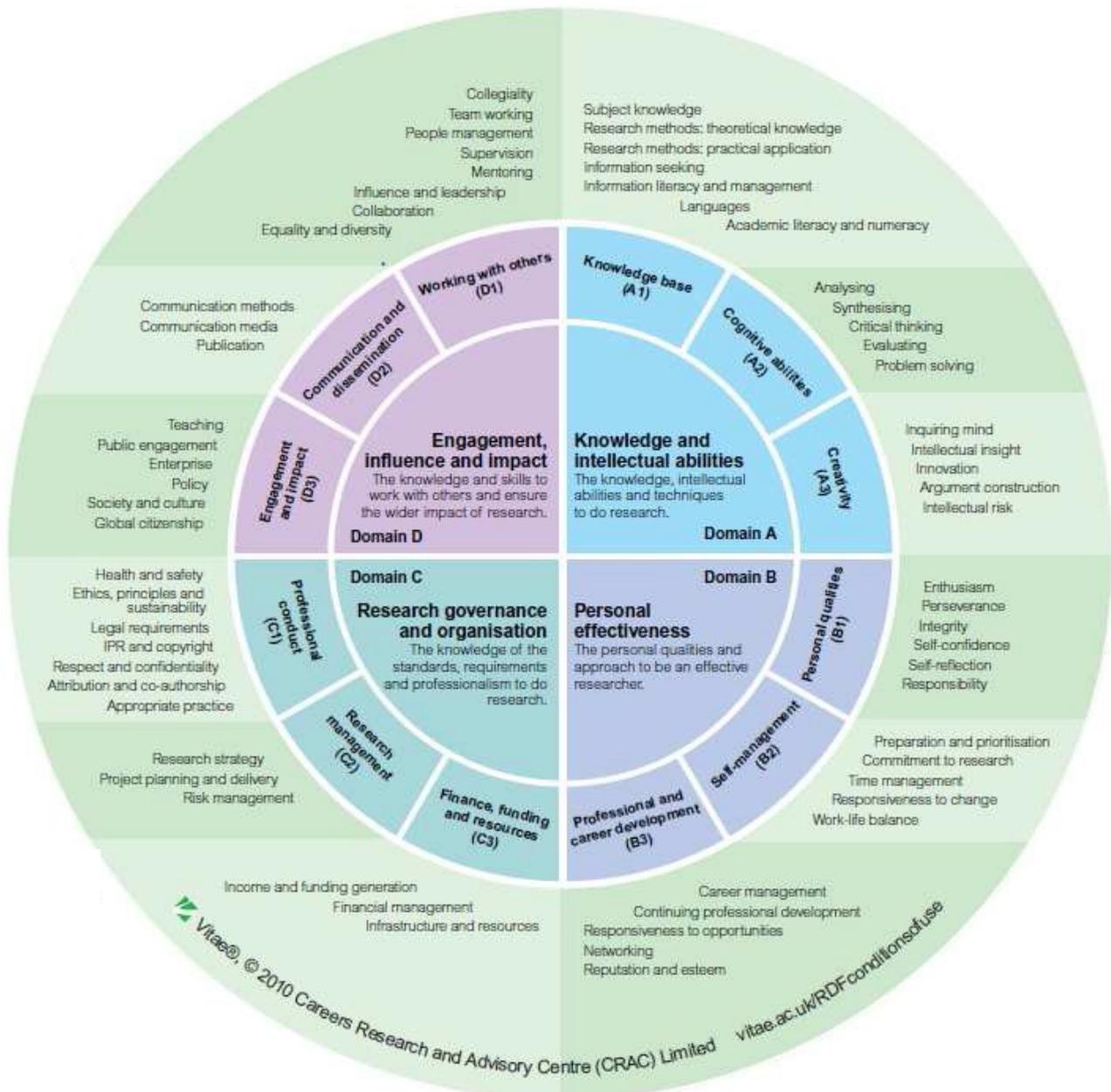**Supervisor: Charles White, CNRS**

Successful and timely completion of your research degree will depend on developing a mixture of subject-specific skills, intellectual skills, such as critical thinking, and more generic skills, like communication and enterprise. Many of these skills will also be important in your future life, whatever career or life choices you make.

The ITNA Training Needs Analysis form uses Vitae's Researcher Development Framework (RDF) to help you think about your current skills, pinpoint gaps in your knowledge¸ and identify areas for future development. The RDF articulates the knowledge, behaviours and attitudes of researchers, from postgraduates to establish academic leaders and is endorsed by Research Councils UK.

There are four sections to the form, based on the RDF domains (below or for more details, including suggested skills levels see:

https://www.vitae.ac.uk/vitae-publications/rdf-related/researcher-development-framework-rdf-vitae.pdf/view)

Use the sections to outline your goals for this year in each area. At the end of the form is a summary sheet to outline your specific plans.

Vitae Researcher Development Framework

Domain A — Knowledge and intellectual abilities
The knowledge, intellectual abilities and techniques to do research.

- Knowledge base (A1)
- Cognitive abilities (A2)
- Creativity (A3)

Subject knowledge
Research methods: theoretical knowledge
Research methods: practical application
Information seeking
Information literacy and management
Languages
Academic literacy and numeracy

Analysing
Synthesising
Critical thinking
Evaluating
Problem solving

Inquiring mind
Intellectual insight
Innovation
Argument construction
Intellectual risk

Domain B — Personal effectiveness
The personal qualities and approach to be an effective researcher.

- Personal qualities (B1)
- Self-management (B2)
- Professional and career development (B3)

Enthusiasm
Perseverance
Integrity
Self-confidence
Self-reflection
Responsibility

Preparation and prioritisation
Commitment to research
Time management
Responsiveness to change
Work-life balance

Career management
Continuing professional development
Responsiveness to opportunities
Networking
Reputation and esteem

Domain C — Research governance and organisation
The knowledge of the standards, requirements and professionalism to do research.

- Professional conduct (C1)
- Research management (C2)
- Finance, funding and resources (C3)

Health and safety
Ethics, principles and sustainability
Legal requirements
IPR and copyright
Respect and confidentiality
Attribution and co-authorship
Appropriate practice

Research strategy
Project planning and delivery
Risk management

Income and funding generation
Financial management
Infrastructure and resources

Domain D — Engagement, influence and impact
The knowledge and skills to work with others and ensure the wider impact of research.

- Working with others (D1)
- Communication and dissemination (D2)
- Engagement and impact (D3)

Collegiality
Team working
People management
Supervision
Mentoring
Influence and leadership
Collaboration
Equality and diversity

Communication methods
Communication media
Publication

Teaching
Public engagement
Enterprise
Policy
Society and culture
Global citizenship

Domain A: Knowledge and Intellectual Abilities

The knowledge, intellectual abilities, and techniques used in research

(Knowledge Base, Cognitive Abilities, Creativity)

In the field of knowledge base, there is room for improvement all along your career. Although I started my PhD with some core knowledge of my subject, improving this is a main goal and a main necessity in the short term and it wil be a continuous goal for the duration of my doctoral work (it is one of the goals of the PhD program itself). Both the theoretical knowledge and the practical application of research methods are important points to improve, especially during the first steps of a PhD program, in order to be able to apply them throughout my PhD studies. I have important shortcomings in molecular biology techniques, knowledge that I must ameliorate. Also, I feel that I should improve the information management, as I tend to be disorganized with data, and numeracy, as I do not have a strong proficiency in statistics. As for languages, I feel that I have a good level of English, appropiate for research in all of its aspects, but my PhD is developed in France and my level of spoken French is very low. Being able to understand and communicate in French is a priority goal as it will allow me to have a better fit in my workplace, network etc.

Regarding cognitive abilities, my main objectives are progressing in synthesizing and in evaluating. Reading and studying bibliography can be totally useless if you forget what you have read in time. I have to develop and/or reinforce methods to summarize, organize and archive the information I get, as well as the ideas I have, in order to make them accessible and useful in future. In addition, I have to progress in evaluating, principally my own ideas and my own work. The attendance to meetings of my research group as well as the ITN and international meetings in which I have to explain and defend my data and propositions, and where I am exposed to criticism and suggestions can help in this.

Critical thinking and creativity are aspects, as subject knowledge, that are always an objective for progression during your PhD. An appropriate environment in the laboratory that allows you to propose new ideas, that makes you defend them and, if after critical evaluation they are considered useful, perfom them, is in my opinion essential for progressing. In this field, I feel that argument construction may be my main deficiency, but it will be developed as will be demanded for defending my proposition and my work.

Domain B: Personal Effectiveness

The personal qualities and approach to be an effective researcher (Professional

and Career Development, Self-Management, Personal Qualities)

In the domain of personal effectiveness, I probably need some improvement in perseverance, mainly in establishing myself some routines and dealing with the more routine parts of my work to make it more efficient. Regarding self management, planning is a main point to work on in general. Preparation and prioritisation and time management are not my strongest points. I need to reinforce my ability to stop, to examine what I have and what I need to do in perspective, and trace a clear plan of the steps to follow. This would also allow me to be more efficient. By doing this I would better organize the priorities and have a better management of my time. This also allows you to have a better work-life balance, as a good planification of your work permits you to be efficient during your work hours in order to finish everything you have to do and reduce extra hours caused by time loses during working hours due to poor planification.

Another aspect I would have to work on is networking. I have always tended to work more individually than cooperatively, and although I think I have improved this lately, it might not yet be enough. Belonging to MEICOM network is a good opportunity to improve my cooperation and engagement with other students and scientists, and at the same time I will try to improve daily also in my workplace.

Domain C: Research Governance and Organization

The knowledge of standards, requirements, and professionalism to do research (Professional
Conduct, Research Management, Finance, Funding and Resources)

In regard to research governance and organization, I have plently of field for improvement. My knowledge of legal requirements surrounding research or IPR and copyright is very poor. So during this year I will try to adquire a basic understading of legislation in these aspects in order to become a responsible researcher in the future.

In terms of research management, as I have said above, improving planning is a major point to work on. Project planning, with the setting of specific short and long term goals and the following of the advances towards achieving these, as well as the delivery and communication of results is needed to prepare for future writing and managing research projects. I think this is a proper initial point early in your career to start working on management and writing skills which will be very important later on.

Domain D: Engagement, influence and impact

The knowledge and skills to work with others and ensure the wider impact of research (Working
with Others, Communication and Dissemination, Engagement and Impact)

Connected to the previous point of networking, I think I should improve my engagement and my contribution with my colleagues in my own lab and institute. I set myself the goal of being more interested and informed of other projects of my research group, in order to be able to collaborate intellectually, by discussing in lab meetings and personaly and adding new possible sights for their problems. Manually also, by giving a helping hand when needed or when my workload is not very high. In addition, as I have the possibility in my research center of attending talks and conferences of multiple research topics and groups, I set myself the objective of participating more actively.

For communication and dissemination, as during my PhD I will constantly have to communicate my results publicly, I need to improve in my ability to give talks. Specifically in two aspects: organization of what I want to say and how to say it to transmit clearly the message I want and be more calm and confident, to learn to enjoy the situation of defending my work in front of an audience.

In terms of engagement and impact of research in the society, achieve a better understanding of the socio-economical and political points surrounding the different aspects of my research field (plant breeding has huge human and societal implications), as well as an ability to discuss about them, not only with collegues of my own subject, but in multidisciplinary environments. Finally, to explain them in my daily life to people not particulary formed in the topic and discuss with them the possible implications for their present and future.

You can use this section to identify a small number of specific prioritised goals for your development year.

This should be revisited at the end of the year to assess progress.

Identified skill area for development	Planned Activity	Success criteria (i.e. how will you know you've achieved your goal)	Deadline (when do you want to achieve it by?)
Language - French	Attend courses, studying, practising in my day-to-day	Be able to understand and communicate in French, both in scientifical and non-scientifical situations	End of 2019
Planning	Create plans with specific goals, timeframes and follow the performance of the plans through defined milestones.	Being able to follow the advance of my work and to place my results in the context of the plans and objectives.	2019
Perseverance and efficiency	Establish myself certain routines in my workday	Fulfillment of these routines and improvement of my efficiency during my workday	2019
Communication	Spend time preparing my talks, evaluate myself after the talk and ask for advice to identify the aspects to improve and work on them	Self awareness of and improval in my communication skills as well as the engagement and interest of the audience in my talks	Continuous during my PhD
Research methods – techniques	Study bibliography of my field and related fields, put in practice possible new approaches.	Deep knowledge of the techniques I am working with and its fundaments; application of new techniques with success	Continuous during my PhD

Signature (MEICOM ESR)
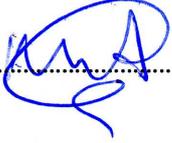
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Signature (Supervisor)

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Signature (Second or co-Supervisor)

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