

MEICOM

ITNA TRAINING NEEDS ANALYSIS

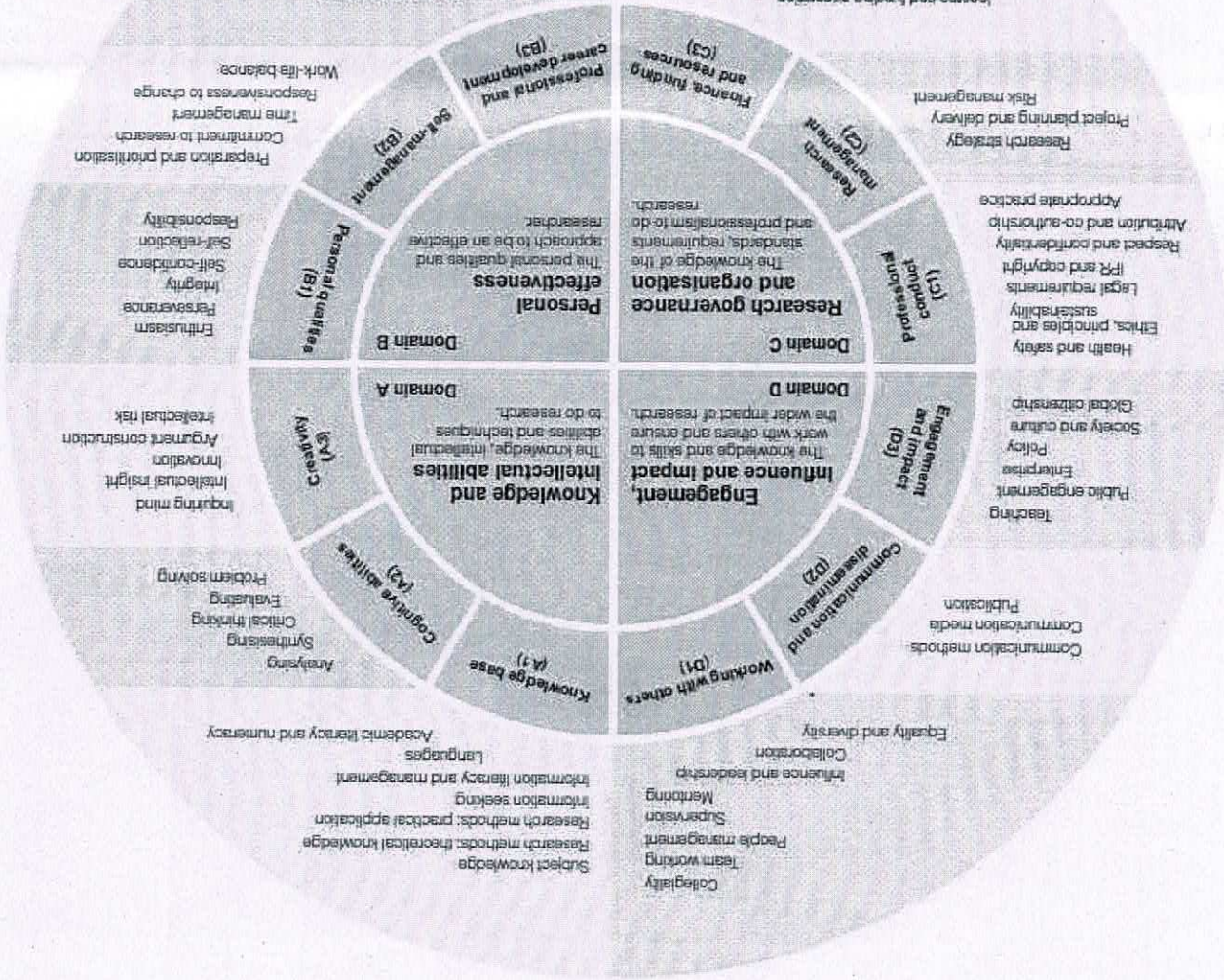
Successful and timely completion of your research degree will depend on developing a mixture of subject-specific skills, intellectual skills, such as critical thinking, and more generic skills, like communication and enterprise. Many of these skills will also be important in your future life, whatever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



Domain A: Knowledge and Intellectual Abilities

The knowledge, intellectual abilities, and techniques used in research
(Knowledge Base, Cognitive Abilities, Creativity)

During the first year of the project, a broad overview of meiosis and all the elements involved in the control of meiosis will be obtained.

More specifically, the meiotic double strand break process, which is relevant to my research project, will be studied in detail. The components involved will be continuously researched and new research will be added to the ever growing library of information weekly. The most recent genome editing technique, CRISPR-Cas9, will be used in the research to modify the genome of tomato. New ways in which the technology can be used is continuously discovered and these will be researched and applied if appropriate to my research.

I will also research topics not related to my specific project, but that will enhance my knowledge in plant and genetics research. Topics spanning human genetics and human meiosis will also be covered as this can also lead to potential applications in plant research.

As I am living in Germany, I aim to learn the German language. Therefore, I will be participating in German classes in the afternoons, ending with a written exam. This will help me better communicate with my colleagues and get by within the country.

I will use the results from previous studies to start my research. For example, I will use natural inversions found in previous studies of the tomato genome to further study inversions and deletions in tomatoes. I will also increase my abilities to analyse my results by attending a bioinformatics course and similar courses. I will further compare it to results in other plants or organisms.

I will communicate with my fellow MEICOM ESRs and increase my knowledge base further through secondments within the MEICOM network. This will also allow me to learn new skills and increase my interaction skills with other researchers.

Domain B: Personal Effectiveness

The personal qualities and approach to be an effective researcher (Professional and Career Development, Self-Management, Personal Qualities)

To be an effective researcher, there are several aspects that need to improve. For example, I need to improve my time management skills. Since working with plants is a new experience compared to fungi, I need to work on managing my time to better fit in with how plants grow and develop compared to fungi. This will help me to maintain the 3-year timeline for the PhD and project. The mandatory 6 months reports will help me in maintaining a strict time schedule. This can be further obtained by setting weekly tasks and keeping to the task list. When problems arise, these will be dealt with effectively and the schedule adapted accordingly to accommodate the problems. The problems will be documented and the solutions will be well recorded.

Effective time-management will ensure that there is enough time to have a healthy work-life balance, and that working late hours and over weekends is restricted to only when it is extremely necessary. This will ensure that good health is maintained and that the research can be performed with good enthusiasm and confidence throughout the duration of the PhD.

The MEICOM ITN gives a great opportunity for career development and network building. By communicating with the other ESRs and learning about their research I can develop a network of people from whom I can get help where necessary, or with whom I can share my knowledge when it is needed. Also, to further increase my employability at the end of my PhD I will also look at doing skills courses and training. This will boost my confidence and capabilities to perform new tasks in new environments without problems.

Domain C: Research Governance and Organization

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

I aim to always act with professional conduct. This is to ensure my safety and the safety of my colleagues. This also ensures that my research is safe and that no one will have the ability to 'steal' my research and publish my results, and therefore the intellectual property of the KIT, as their own results.

I have a set research strategy in place for my project and have already got a backup strategy in case there is a problem with my research.

I aim to increase my understanding of the funding of the project and the funding of the institute, but coming from a research group that had limited funding, I use reagents and consumables sparingly and aim to do so within this research project as well.

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)

The ability to work with others in any circumstances is critical. Working with the other members of the research group is important for learning how things work in the lab and keeping things running smoothly. It is also critical to work with the other MEICOM ESR members to ensure that our research is effectively communicated and that tasks such as the ThinkTank outreach program runs smoothly.

Working with other lab members will also help me learn new skills and increase my communication skills.

During the first year I will be mentoring a bachelor's student and supervising a Master's practical component. This will increase my skills in teaching students the techniques that I have already learned.

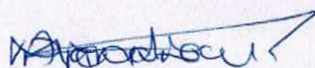
I will also be expected to present my results. This skill I will also have to adapt and develop to a new audience, as I am used to speaking about fungi and now need to learn new terms related to plants and meiosis. The presentations will be both to my fellow members in the research group as well as the other MEICOM ESRs and their mentors and supervisors. I will also aim to present my research at conferences either in the form of a poster presentation or a short talk.

Any publications that I obtain, I will share on social media to allow it to reach further groups than just my current research group and fellow ESRs. This can lead to increased exposure of my research quality and increase my chances of obtaining a job after my PhD is completed.

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.

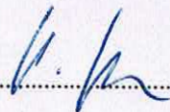
Identified skill area for development	Planned Activity	Success criteria (i.e. how will you know you've achieved your goal)	Deadline (when do you want to achieve it by?)
Learn German language	Complete a German course to learn the language efficiently to be able to communicate with my colleagues.	When I can understand and partake in German discussions.	June 2019
Increase confidence when presenting work	Present my research as much as possible to gain experience and confidence in presenting.	Feedback from colleagues and by feeling more confident when presenting	June 2019
Ability to share my information	By learning from others how they share their knowledge and research to higher audiences	Feedback from audiences saying they understand the communicated research and increasing confidence in sharing my research	June 2019
Increase scientific knowledge	Reading and understanding literature and applying it to my research project	Obtaining results in my projects and confidently discussing the literature with fellow researchers	June 2019
Increase critical thinking skills to become an independent researcher	Read more literature to gain confidence in own findings. Receive training in areas in which I am not confident to gain experience and independence.	When I feel I can work independently on research areas and rely less on help from other researchers in the group.	June 2019

Signature (MEICOM ESR)



Date 15-01-2019

Signature (Supervisor)



Date 15.1.2019

Signature (Second or co-Supervisor)

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