

Competency overview for PhD holders

<https://www.uhasselt.be/competency-framework-for-PhD-holders>

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At Hasselt University, junior researchers are encouraged and supported to take their professional and personal development into their own hands, in order for them to be broadly employable, both within and outside the university walls.

An important part of preparing for any further professional step is becoming (more) aware of the competences you have developed and/or want to develop further. This awareness increases opportunities on the labour market in several ways: it broadens your horizon, enhances your self-knowledge, helps you to get a better view on the match between yourself and a potential new position/employer, and supports you in 'selling' yourself in an authentic way.

The 'competency overview for PhD holders' is a list of **50 competences**, potentially mastered by PhD holders, categorized into **five clusters**:

- academic research competences,
- intellectual competences,
- personal effectiveness,
- task-orientedness,
- interpersonal competences.

The (non-exhaustive) list thus contains a mixture of academic and generic competences **that may be (further) developed during the course of a PhD / research project**. Its main goal is to broaden junior researchers' field of vision and to help them find the right words during their career development process.

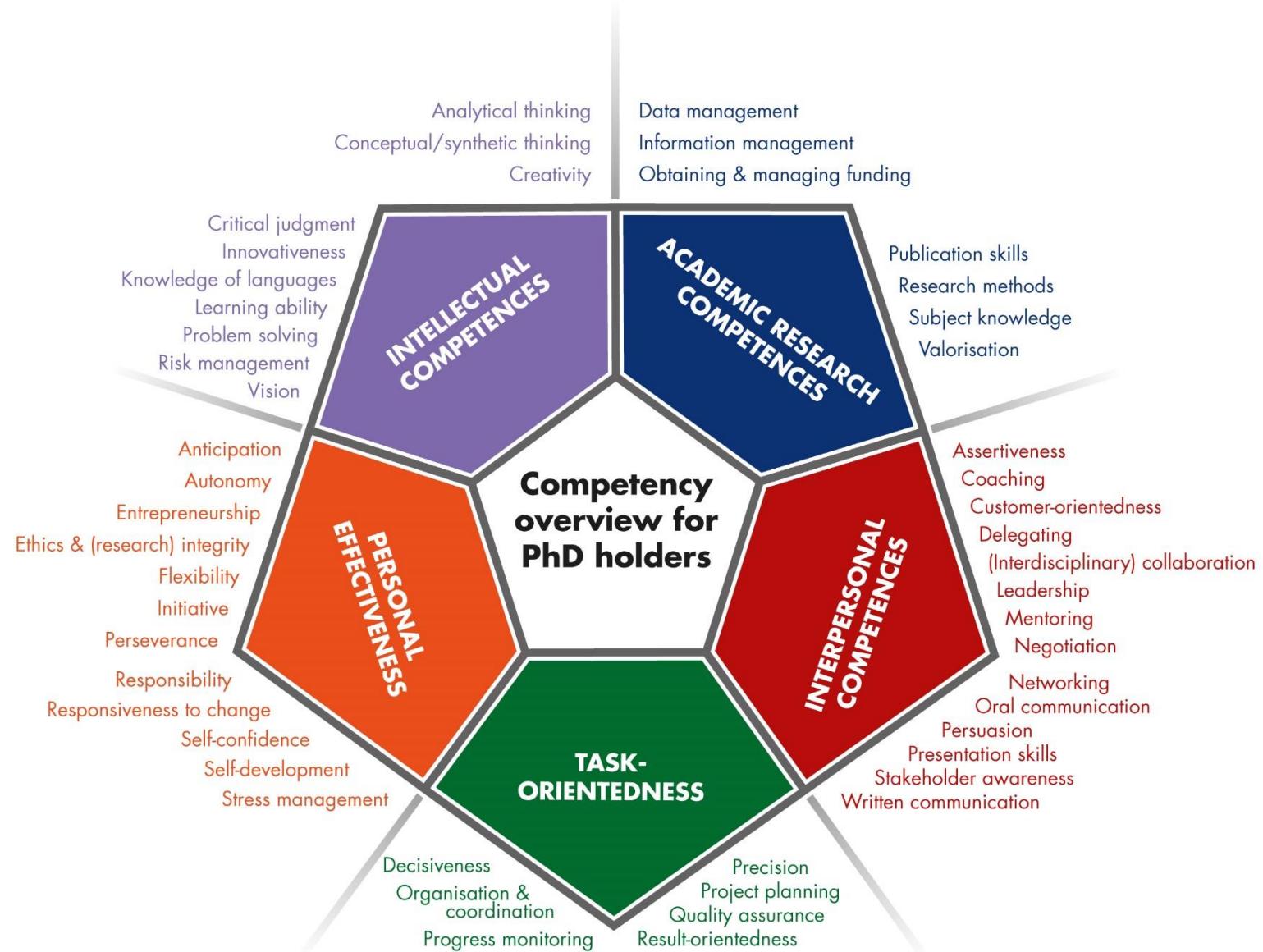
One single person is not expected to master *all* of these competences perfectly. The list is rather meant to be a source of inspiration. Junior researchers can use the overview already during their PhD or postdoc period ...

- to identify their strengths,
- to determine which competences they value most (and/or will need in order to reach a certain goal),
- to determine their potential for growth,

... with an eye to thoughtfully considering various career options, based on individual strengths and preferences.

Each competence has been given a **definition** referring to the specific behaviours through which the competence can be shown.

What makes this overview **unique** is that it looks at competences from *both* a non-academic and an academic perspective, in a language that is understandable for people from all disciplines.



Definitions

1. ACADEMIC RESEARCH COMPETENCES

Data management

Understands and is able to apply analytical and/or statistical procedures in own (and related) research areas. Continuously optimizes the own data management strategy, with an eye for the latest (statistical) tools. Is able to interpret and synthesize complex data from various sources and to see patterns and connections.

Information management

Shows highly developed awareness of appropriate sources of scientific information and is able to conduct advanced searches using a range of tools. Develops own system for the acquisition, storage, organisation and sharing of information, with attention to information security. Is able to analyse and synthesize complex information.

Obtaining & managing funding

Is familiar with available funding sources and grant application procedures. Is able to write a grant proposal. Is able to manage own budget(s), understands the basic principles of financial management.

Publication skills

Understands the publication process and is able to target appropriate outlets. Is able to produce publishable material of high standard and – if needed – to collaborate with co-authors. Has experience with reviewing the work of others.

Research methods

Understands, uses and is able to combine and justify relevant methods/techniques for data collection and analysis. Is able to advise and support others in the appropriate selection and use of methods/techniques. Recognises the value of alternative research paradigms.

Subject knowledge

Has thorough knowledge of, and knows of recent advances within, own (and related) research areas. Contributes to the further development of the discipline/research area, considering multiple (interdisciplinary) perspectives.

Valorisation

Can translate research to its worth for society (commercially or non-commercially). Contributes to the public understanding of the own research area, and recognises the mutual benefit of this type of engagement to both the public and the scientific field. Is able to communicate scientific findings to non-specialist audiences and to (reflect upon the) use (of) scientific methods or findings within a broader social context.

2. INTELLECTUAL COMPETENCES

Analytical thinking

Is able to separate main issues from side-issues and to quickly see the essence of things. Is able to analyse and process information by detecting underlying problems and their causes and by recognising underlying structures.

Conceptual/synthetic thinking

Is able to think on a conceptual level and to make use of abstraction, going beyond the here and now. Sees connections and recognises patterns, and actively integrates diverse pieces of information in order to gain a perception of the broader picture.

Creativity

Can come up with alternative, original and/or new ideas, perspectives and solutions. Is able to find approaches that deviate from the established way of thinking.

Critical judgment

Can make a comparative assessment of relevant criteria. Recognises important arguments and can evaluate the assumptions of others. Determines one's own position based on the evidence at hand, and is able to assess possible consequences and to see pros and cons.

Innovativeness

Has an open and inquiring mind and is able to concentrate on future renewal of strategies, products, services and/or markets. Is willing to challenge traditional viewpoints and is able to create new ways of understanding and/or new ways of working. Can stimulate others to have an eye for future opportunities.

Knowledge of languages

Has excellent knowledge of language(s) appropriate for research and career development.

Learning ability

Demonstrates a willingness and ability to learn and acquire knowledge. Is able to identify and asks useful, challenging questions. Can put the learned information into practice and use it to behave more effectively.

Problem solving

Shows the ability to examine a problem from multiple angles and can reach the core issue by asking the right questions and/or consulting the right sources. Can reshape complex problems into manageable issues. Can come to realistic and strategic solutions, by investigating (causal) connections, considering pros and cons, separating main and side-issues, making use of abstraction, etc.

Risk management

Takes appropriate intellectual risks. Can determine the risks related to a project and the means to control them. Is able to analyse risks, identify their origin and take action in order to manage them. Shows awareness of potential risks in the broader environment.

Vision

Is able to look at facts from a distance, and to put them in a broader context and/or in perspective. Can go beyond the day-to-day practice and develop own ideas for the future of the organisation (or department/service/product).

3. PERSONAL EFFECTIVENESS

Anticipation

Sees the gaps and opportunities in (project) plans and evaluates the changes needed. Proactively and spontaneously takes advantage of opportunities. Recognises critical situations in time and is able to respond adequately. Shows the ability to prevent escalation by taking timely measures.

Autonomy

Is able to independently form an opinion or take action, without allowing oneself to be steered into a different direction by others. Pursues one's own course. Can work independently.

Entrepreneurship

Is able to develop ideas in an innovative manner. Understands the process of commercial exploitation of (research) results. Can turn ideas into real ventures and recognises potential for new products and/or applications. Is commercially and socially aware and highly skilled at developing relationships in business/commercial context.

Ethics & (research) integrity

Recognises generally accepted social and ethical values and standards and acts accordingly, even in case of external pressure to deviate. Acts with professional integrity, honesty and transparency and handles confidential information discretely. Understands and demonstrates standards of good research practice, taking care of appropriate information/data handling and dissemination.

Flexibility

Shows the willingness and ability to adapt to changing environments, responsibilities and/or behaviour of others. Is prepared to take on tasks that are not part of the regular range of duties, if required by the circumstances. Spontaneously looks for alternative approaches if the chosen approach does not turn out to be suitable. Is able to adapt the own behaviour in order to reach predetermined objectives in a better (i.e. faster / more efficient) way.

Initiative

Spontaneously takes action in response to opportunities and/or obstacles, as quickly as possible. Demonstrates the willingness and ability to take on responsibilities without being asked to do so. Is able to actively present new plans and ideas. Creates new possibilities and makes the most of one's opportunities.

Perseverance

Demonstrates self-discipline, motivation and thoroughness. Is able to work intensively on a certain task for a long period. Perseveres in the face of obstacles and set-backs and shows resilience.

Responsibility

Respects rules and procedures and takes responsibility for one's own tasks and/or projects. Conscientiously engages oneself to realise one's range of duties and to comply with made agreements. Is willing and able to communicate clearly when agreements/deadlines have not been met (or in case of any mistakes). Dares to take (difficult) decisions – respecting the values and norms of one's organisation or team –, and is able to initiate them and deal with the consequences. Shows alertness to the well-being of others and supports colleagues where possible when delegating tasks.

Responsiveness to change

Continuously improves one's own performance and/or functioning of the organisation, by showing the willingness and ability to learn and to adapt to changes. Welcomes change, expects it and is prepared for it, and can manage associated risks and opportunities. Is able to respond decisively and knows when to seek advice.

Self-confidence

Shows awareness of one's range of skills and is able to demonstrate them. Shows the ability to defend ideas in the face of reasonable challenge. Recognises boundaries of own knowledge and expertise, and is able to involve sources of support, as appropriate. Is self-reliant and capable of directing others.

Self-development

Actively and continuously gains insight into one's own identity, values, strengths and weaknesses, interests and ambitions. Is eager to learn and dares to question oneself. Acts proactively and purposefully in order to expand one's knowledge and skillset. Learns from mistakes, seeks personal feedback on performance and takes it into account. Deliberately chooses one's own course and realises it both inside and outside the organisation.

Stress management

Is able to keep up good performance under time pressure, more or more difficult tasks, social pressure, adversities, disappointments, resistance or crises. Is realistic in what can and cannot be achieved and dares to say 'no' when something is not feasible. Interprets criticism in a positive sense and sees it as a tool to improve oneself. Is able to put unreasonable criticism into perspective and doesn't lose balance because of it. Is able to recover smoothly after heavy disappointments or setbacks and focuses one's energy in a new direction afterwards.

4. TASK-ORIENTEDNESS

Decisiveness

Dares to take decisions or undertake action, based on a thorough problem analysis. Takes all relevant aspects into account and acts vigorously and responsibly. Can take calculated risks, if needed. Dares to take a stand, even in case of incomplete knowledge or in case of conflicting interests.

Organisation & coordination

Is able to plan and organise the own work, as well as to coordinate the work of others, in view of a project or event. Knows what is required in terms of people, time and resources in order to reach the objectives, and is able to structure the information at hand in a systematic way, as well as to handle problems efficiently. Demonstrates a willingness and ability to make clear agreements with the people involved and to follow-up on the process. Views all activities and results in light of the bigger picture.

Precision (meticulousness)

Has an eye for detail and can handle detailed information accurately and effectively.

Progress monitoring

Is able to monitor the progress of commitments, plans and projects, with respect to both time and quality. Can anticipate on possible disruptions of the progress, is proactive in determining factors which can lead to delay or problems, and actively tries to avoid the latter. Is able to report on the progress made and has the integrity to inform the parties involved if the deadline cannot be met.

Project planning

Is able to prepare and plan projects to meet objectives, taking into account the available time and resources. Can set goals and formulate clear expectations, as well as define milestones and follow-up on them in order to keep the project(s) on track. Is able to prioritize activities, both short-term and long-term. Shows the ability to prepare for, and deal with, the unexpected and to switch focus between multiple projects/tasks.

Quality assurance

Is able to reach and maintain the best possible quality with the resources available, by setting high standards for the results of projects, services, own actions and actions of others. Strives for continuous improvement.

Result-orientedness

Actively focuses on achieving predetermined goals. Is able to make plans in order to obtain results, to make them concrete, and to monitor their realisation (by oneself or by others). Demonstrates the ability to regularly evaluate the situation with regards to the objectives, to take initiative in order to adjust the course of action and look for alternatives, if needed. Keeps aiming at reaching the objectives, despite setbacks, opposition or distractions.

5. INTERPERSONAL COMPETENCES

Assertiveness

Is able to bring across own viewpoints in a non-offensive, tactful way, without harming the relationship with the other. Is open about wants and needs while still considering the rights, needs, and wants of others. Realises that one can't do everything or please everyone, and dares to say no. Is able to stand up for oneself and can respectfully confront people, if needed.

Coaching (task-oriented)

Is able to motivate and guide collaborators in order to improve their performance on the job. Can identify and clarify obstacles with respect to others' task execution, and give them tips, suggestions and/or guidance (which can involve enhancing current skills as well as acquiring new skills). Is able to act as a sounding board and to increase others' insight in their own level of performance, for instance by giving clear and constructive feedback.

Customer-orientedness

Gives priority to the satisfaction of internal or external clients and/or to customer-related service. Demonstrates the ability to examine and acknowledge the wishes and needs of clients and to adequately act on that (both in anticipation and in retrospect), taking into account the pros and cons for the own organisation. Shows respect for clients, regardless of potential unreasonableness of wishes or complaints, shows the willingness to find a joint solution, and is open and honest when services cannot be delivered.

Delegating

Knows when and how to assign responsibilities to co-workers, making use of the available time, skills and human potential. When doing so, clearly indicates deadlines and ways of reporting. Follows up if necessary.

(Interdisciplinary) collaboration

Shows awareness of the value of working together for maximising the potential for impact and can work in a team, even when the joint effort doesn't immediately serve a personal goal. Can contribute to a joint result by attuning the own qualities and interests to those of the group/other person. Is sensitive to intentions, needs and positions of team members, recognises their strengths, and gives credit to people for their contribution. Is able to work in cross-disciplinary contexts, to think comparatively, and to recognise common/conflicting interests.

Leadership

Is able to formulate objectives, assign tasks and make clear agreements (including realistic deadlines), so that people know what is expected of them, as well as to monitor progress and to correct when necessary. Acknowledges contributions of others and uses them to best effect. Offers direction and guidance in a stimulating way, with encouragement of cooperation. Develops own leadership style, but is also able to adapt one's style to the needs of others. Can take on various roles (e.g. instructor, mentor, supervisor, coach, ...) depending on the circumstances. Empowers people and encourages their development of autonomy.

Mentoring (relationship-oriented)

Shows the willingness and ability to act as a mentor to less experienced colleagues or peers. Helps people to see opportunities and take up new challenges. Is able to provide a safe environment where mentees can share whatever issues affecting their professional and personal success. Is able to listen and to give advice/guidance when appropriate, with an eye for not only the current job, but also the future. Supports and encourages people to manage their own learning and works with mentees' goals to help them realise their potential.

Negotiation

Is able to convey one's own viewpoints, arguments and interests and actively tries to get to the bottom of those of the other party, in order to reach a solution that is acceptable to both. In case of conflicts of interests, puts forward the right arguments at the right time and knows when to give in, achieving optimal results with respect to content while preserving the relationship as well.

Networking

Develops and maintains co-operative networks and working relationships, both within and outside the own organisation. Shows interest in people and takes initiative to bring others into contact and introduce them to each other. Actively looks for interesting contacts – both digitally and in real life – and addresses them for information, feedback or advice. Ultimately succeeds in being remembered and in getting useful referrals.

Oral communication

Is able to explain ideas, arguments and decisions, in understandable and correct language, tailored to the listener. Pays attention to the form of the message, by showing appropriate non-verbal behaviour (eye contact, posture) and by appropriately using the own voice (volume, intonation). Seeks contact with the audience and uses relevant and convincing examples and comparisons. Actively engages in knowledge exchange and eloquently makes complex issues accessible. Stimulates bi-directional communication.

Persuasion

Demonstrates the ability to win someone over to one's viewpoints/ideas and to get support. Shows belief in one's own conviction and is able to formulate relevant, logic and transparent arguments. Anticipates on possible counterarguments or objections and knows how to refute them. Appreciates concerns of others, knows which arguments and lines of reasoning will appeal to them, and uses this knowledge strategically.

Presentation skills

Is able to convey ideas/theories/results in a clear, understandable and interesting way. Dares to speak in public and radiates professionalism and self-confidence. Builds a powerful and well-structured line of reasoning, adapted to the target audience, and adequately uses (audio-visual) aids. Directly addresses the audience, paying attention to non-verbal behaviour (eye contact, posture) and appropriate use of the own voice (volume, intonation). Stimulates interaction, is able to respond to questions and can, if needed, adapt one's approach to the situation at hand.

Stakeholder awareness

Is able to identify which parties are directly or indirectly involved in, and have a possible impact on, a task or project. Shows the ability to gain insight into the stakeholders' interests and to take them into account. Includes the stakeholders where necessary and establishes a clear and efficient communication. Considers society as a whole as an important stakeholder and shows awareness of the social relevance and possible consequences of a task or project.

Written communication

Is able to put ideas, arguments and decisions in writing, in understandable and correct language, tailored to the reader. Has an eye for layout and typography, builds up texts in a structured manner, avoids too complex language / too long sentences, and adapts the use of words to the target audience.

Sources of inspiration:

- Competentiewoordenboek Ascento (2016)
- [Competentieboek Vlaamse Overheid](#)
- [Competentie-ontwikkelend onderwijs: een verkenning \(2008\). Vlaamse Onderwijsraad, Garant.](#)
- [De Grande, H., De Boyser, K., Vandervelde, K., & Van Rossem, R. \(2011\). The skills mismatch: what doctoral candidates and employers consider important. ECOOM.](#)
- [DocPro: the professional profile of PhD holders](#)
- Onderwijs+ woordenboekje UHasselt
- [Van talent naar performance: praktijkboek \(2014\). Acerta.](#)
- [Vitae researcher development framework](#)