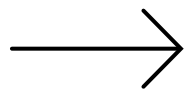
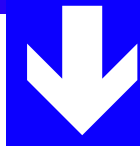


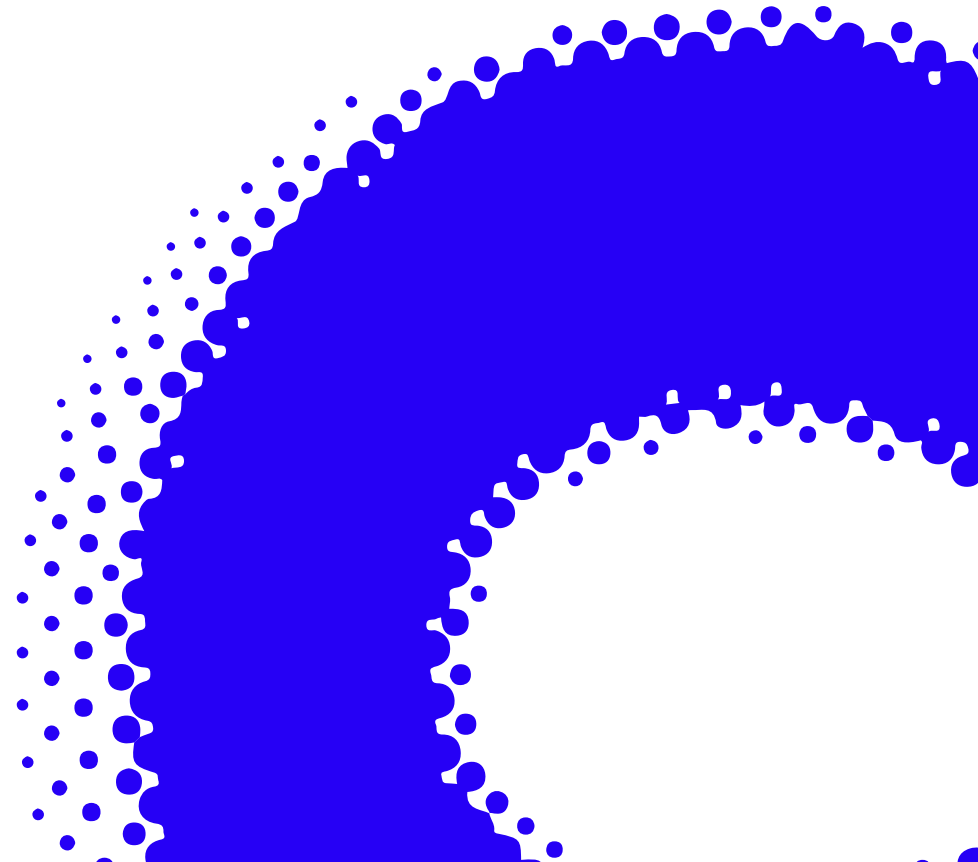
SKILLS AND COMPETENCES



ASSESSMENT TOOL for Researchers



Produced by the Autonomous University of Barcelona team within the KALEIDOS project, this self-assessment tool supports institutions and individuals in assessing competences related to Knowledge Valorisation and Open Science.



#1_PURPOSE AND CONTEXT

The **KALEIDOS Self-Assessment Tool** for skills and competences for **researchers** is designed as a complementary instrument to the portfolio of competences developed within the KALEIDOS project. It supports both institutional and individual reflection on skills related to Knowledge Valorisation and Open Science

The tool is designed to enable research managers, Higher Education Institutions and research centres to systematically assess competences related to Knowledge Valorisation and Open Science practices. Its primary objective is to help identify strengths, areas for development, and priority needs for capacity-building across the three key competence areas defined in the KALEIDOS framework: collaboration, systemic vision, and impact.

The process is fully aligned with the KALEIDOS competence framework for Knowledge Valorisation and provides insights across three key areas: collaboration, systemic vision, and impact. Through this structured approach, the tool fosters continuous learning, strategic reflection, and the development of skills needed to maximise the societal value of research.

#2_HOW TO USE THE SELF-ASSESSMENT TOOL

The Self-Assessment process is structured into a sequence of interconnected steps that guides researchers through the evaluation of their competences and the interpretation of results. While the initial steps focus on individual reflection and scoring, the later stages support the identification of development priorities and training needs.

In the following pages you will find a questionnaire divided by each of the KALEIDOS competence area (collaboration, systemic vision, and impact). Each dimension includes a specific number of competences: 8 in systemic vision, 6 in collaboration, and 7 in impact.

For each competence, review the four statements and select those that best reflect your current level of practice and experience. Each statement you select is worth 1 point, meaning:

1 Foundational level

2 Intermediate level

3 Advanced level

4 Expert level

To **understand your overall level in each area**, you should calculate the average score:

1 Add all your scores for the competences within the same area

2 Divide by the number of competences assessed in that area:

SYSTEMIC VISION 10

COLLABORATION 5

IMPACT 6

3 You will get an overall number by area

In each section you will get a text on how to interpret your results. To ensure a meaningful and realistic assessment, it is recommended to complement your self-reflection with feedback from mentors, peers, or supervisors.

#3_QUESTIONNAIRE



SYSTEMIC VISION

LIFE
COMP

+

GREEN
COMP

SELF-REGULATION + FLEXIBILITY + EMPATHY



Which statement best describes your ability to manage your own emotions, adapt to uncertainty, and empathize with others in a research context?

- +1 ☐ **a** ▶ I am aware of my own emotional triggers and stress responses, and I listen respectfully to others' perspectives to maintain a positive working atmosphere.
- +1 ☐ **b** ▶ I proactively regulate my emotions and stress to remain effective during transitions, and I adopt new approaches autonomously to face challenges while understanding my colleagues' viewpoints.
- +1 ☐ **c** ▶ I support my team in managing stress and navigating uncertainty, actively fostering optimism and taking the perspective of others to resolve group conflicts.
- +1 ☐ **d** ▶ I cultivate an organizational culture of resilience and psychological safety, creating systemic mechanisms that allow the institution to thrive amidst uncertainty and change.
- ☐ **e** ▶ Not applicable

Which statement best reflects your competence in planning, monitoring, and assessing continuous learning and knowledge construction?



MANAGING LEARNING

- +1 ☐ **a** ▶ I am aware of my own learning interests and needs, and I participate in training or development activities when they are assigned or suggested to me.
- +1 ☐ **b** ▶ I independently plan and implement my learning goals, selecting the appropriate resources and reflecting on the outcomes to improve my personal competence.
- +1 ☐ **c** ▶ I facilitate the learning of my team members, helping them establish connections across domains and assessing the outcomes of our collective knowledge construction.
- +1 ☐ **d** ▶ I shape learning strategies for the wider organization, promoting a culture of lifelong development and ensuring that knowledge construction aligns with long-term institutional priorities.
- ☐ **e** ▶ Not applicable

WELLBEING + VALUING SUSTAINABILITY



How do you approach the promotion of wellbeing, health, and sustainable values within the professional environment?

- +1 ☐ **a** ▶ I understand that individual behavior and environmental factors influence health, and I try to maintain a personal lifestyle that respects basic sustainability values.
- +1 ☐ **b** ▶ I actively adopt a sustainable lifestyle and protective measures for my physical and mental health, ensuring my work habits do not negatively impact my personal wellbeing.
- +1 ☐ **c** ▶ I promote a healthy work-life balance within my team, offering social support and ensuring that our group activities align with sustainability and ethical values.
- +1 ☐ **d** ▶ I influence institutional policies to prioritize physical and mental wellbeing, and I integrate sustainability values into the core strategic vision of the research ecosystem.
- ☐ **e** ▶ Not applicable

RM
COMP

Which statement best describes your ability to abstract complex concepts and generate novel scientific ideas?



ABSTRACT THINKING
+ CREATIVITY

- +1 ☐ **a** ▶ I assimilate concepts from my discipline and remain open-minded to different perspectives to understand general trends.
- +1 ☐ **b** ▶ I independently elaborate on concepts, connect unrelated ideas, and test new solutions to solve scientific problems effectively.
- +1 ☐ **c** ▶ I inspire others to adopt an inquiry style, providing insights beyond the obvious and using concepts from other disciplines to expand existing solutions.
- +1 ☐ **d** ▶ I elaborate groundbreaking theories that push the frontiers of knowledge, connecting disparate concepts to challenge the status quo in a visionary way.
- ☐ **e** ▶ Not applicable

CRITICAL THINKING



Which statement best reflects your level of critical judgment and how you apply it to research integrity?

- +1 ☐ **a** ▶ I consciously try to avoid biased thinking in my own work and strictly follow established protocols to ensure my findings are evidence-based.
- +1 ☐ **b** ▶ I formulate sound, realistic judgements based on evidence, independently identifying complex biases or flaws in arguments without needing supervision.
- +1 ☐ **c** ▶ I stimulate critical thinking in peers and less experienced researchers, ensuring that rigorous appraisal processes are central to all team projects.
- +1 ☐ **d** ▶ I build research environments and policy frameworks where critical thinking is the central pillar, influencing integrity standards at a systemic level.
- ☐ **e** ▶ Not applicable

How do you navigate the research landscape to turn your vision into action and influence the broader system?



STRATEGIC + SYSTEMIC THINKING

- +1 ☐ **a** ▶ I synthesize information to understand the national research landscape of my discipline and understand how my immediate tasks fit into the broader context.
- +1 ☐ **b** ▶ I strategically align my own research with institutional goals, understanding the complex interactions between actors to position my work within the field.
- +1 ☐ **c** ▶ I identify alternative paths to turn ideas into action, enabling others to engage with complex challenges and managing relationships with diverse stakeholders.
- +1 ☐ **d** ▶ I am recognized as a thought leader who shapes the broader research agenda, developing a vision that fundamentally changes the complex interconnections between academia and other sectors.
- ☐ **e** ▶ Not applicable

**SEARCH + EVALUATION +
MANAGEMENT OF DATA**

Which statement best describes your ability to manage your own emotions, adapt to uncertainty, and empathize with others in a research context?

- +1 ☐ **a** ▶ I perform simple searches to identify my basic information needs, checking the reliability of common sources and organizing data using standard structures under guidance.
- +1 ☐ **b** ▶ I independently execute search strategies to solve non-routine problems, critically evaluating the credibility of sources and organizing the data to ensure easy personal retrieval.
- +1 ☐ **c** ▶ I adapt search and management strategies for complex projects, guiding others in assessing source credibility and ensuring the team works effectively within structured digital environments.
- +1 ☐ **d** ▶ I architect new processes and standards to solve systemic problems related to data governance, creating innovative solutions for the retrieval and validation of content across large-scale systems.
- ☐ **e** ▶ Not applicable

Which statement best describes your ability to use lateral thinking and multi-perspective frameworks to solve complex research problems?



**LATERAL THINKING
+ 7 HATS**

- +1 ☐ **a** ▶ I am open to new ideas and participate in brainstorming sessions, listening to different perspectives when they are presented by others.
- +1 ☐ **b** ▶ I autonomously apply lateral thinking techniques to break logical patterns in my own work, and I consciously switch between different "thinking hats" (e.g., critical vs. creative) to analyze problems.
- +1 ☐ **c** ▶ I facilitate creative sessions for my team using structured methodologies (like De Bono's Hats), encouraging others to challenge assumptions and look at problems from diverse viewpoints.
- +1 ☐ **d** ▶ I instill a culture of cognitive agility within the organization, championing disruptive thinking strategies that fundamentally shift how the institution approaches innovation and problem-solving.
- ☐ **e** ▶ Not applicable

DECISION MAKING + PRACTICAL INSIGHTS



Which statement best reflects your competence in making decisions and translating abstract concepts into practical, actionable insights?

- +1 ☐ **a** ▶ I follow established guidelines and consult with supervisors to make routine decisions, ensuring my actions are practical and feasible within the project's scope.
- +1 ☐ **b** ▶ I make timely decisions for my own research based on a pragmatic analysis of the facts, converting theoretical findings into concrete, practical steps for execution.
- +1 ☐ **c** ▶ I facilitate collective decision-making processes, balancing conflicting data to provide practical insights that guide the team toward viable solutions in complex situations.
- +1 ☐ **d** ▶ I make high-stakes strategic decisions under uncertainty, synthesizing complex information to generate practical insights that ensure the long-term viability and impact of the research program.
- ☐ **e** ▶ Not applicable

How do you approach the administrative, procedural, and bureaucratic aspects of research management?



ADMINISTRATIVE THINKING

- +1 ☐ **a** ▶ I diligently follow administrative procedures and complete necessary paperwork for my projects, ensuring compliance with institutional rules.
- +1 ☐ **b** ▶ I organize my own administrative workflow efficiently, anticipating procedural bottlenecks and managing resources effectively to support my research output.
- +1 ☐ **c** ▶ I optimize administrative processes for the team, removing bureaucratic hurdles and ensuring that resources and compliance are managed smoothly for the group.
- +1 ☐ **d** ▶ I redesign administrative frameworks and operational systems to enhance institutional efficiency, aligning procedural structures with the strategic goals of the research organization.
- ☐ **e** ▶ Not applicable

COLLABORATION

LIFE
COMP

FLEXIBILITY AND EMPATHY



Which statement best describes your ability to manage uncertainty, adapt to change, and respond to the emotions and perspectives of others?

- +1 ☐ **a** ▶ I am aware of others' emotions and values, and I am willing to review my opinions and courses of action when presented with new evidence or clear instructions.
- +1 ☐ **b** ▶ I proactively adopt new tools and ideas to respond to changing contexts, and I independently make an effort to take the perspective of colleagues to understand their experiences.
- +1 ☐ **c** ▶ I guide others through transitions and uncertainty, responding perceptively to team dynamics and fostering an open environment where diverse perspectives are validated.
- +1 ☐ **d** ▶ I cultivate an organizational culture of resilience that embraces uncertainty as opportunity, creating systemic mechanisms where empathy and flexibility drive strategic decision-making.
- ☐ **e** ▶ Not applicable

RM
COMP

Which statement best describes your level of influence regarding team dynamics, supervision, and the promotion of an inclusive culture?



TEAMS + INTERACT
+ DIVERSITY

- +1 ☐ **a** ▶ I work collaboratively within teams under supervision, listening to others' ideas without prejudice and respecting diversity requirements.
- +1 ☐ **b** ▶ I interact autonomously with colleagues, effectively managing my own collaborative relationships and resolving interpersonal conflicts directly to optimize results.
- +1 ☐ **c** ▶ I supervise and mentor less experienced colleagues, managing team dynamics and ensuring that diversity and equality standards are actively implemented in our daily work.
- +1 ☐ **d** ▶ I build and lead transformative teams, influencing institutional policy on diversity, and I am recognized for a leadership style that enhances the organization's capacity.
- ☐ **e** ▶ Not applicable

RESOURCES + NETWORKS + INTERDISCIPLINARY



How do you approach the mobilization of resources, the development of networks, and the integration of disciplines?

- +1 ☐ **a** ▶ I am aware of funding sources and contribute to drafting proposals or collaborative tasks when requested by the principal investigator.
- +1 ☐ **b** ▶ I autonomously apply for individual grants, build my own network of contacts, and collaborate with researchers from other disciplines to solve specific problems.
- +1 ☐ **c** ▶ I coordinate consortiums for grant applications, advise colleagues on funding procedures, and manage active partnerships to ensure the sustainability of the group's research.
- +1 ☐ **d** ▶ I lead large international consortia and prestigious grant applications, setting the policy agenda for interdisciplinary research and influencing funding strategies within my field.
- ☐ **e** ▶ Not applicable

OTHERS

Which statement best describes your ability to reconcile different viewpoints and generate consensus among stakeholders?



GENERATE
CONSENSUS

- +1 ☐ **a** ▶ I participate constructively in team discussions, expressing my own views clearly while remaining open to accepting the group's final decision.
- +1 ☐ **b** ▶ I proactively facilitate agreements within my immediate working group, clarifying misunderstandings and helping colleagues find common ground on operational issues.
- +1 ☐ **c** ▶ I mediate complex conflicts between diverse stakeholders (e.g., co-authors, partners), managing expectations and building consensus to ensure the project moves forward.
- +1 ☐ **d** ▶ I align disparate interests at a strategic level, building broad coalitions and fostering a culture of dialogue that unites the organization around a shared long-term vision.
- ☐ **e** ▶ Not applicable

DELEGATION



Which statement best reflects your competence in delegating tasks and empowering colleagues or students?

- +1 ☐ **a** ▶ I focus mainly on my own assigned tasks, but I can provide guidance to students or assistants on specific technical procedures when requested.
- +1 ☐ **b** ▶ I assign specific, well-defined tasks to junior support staff or students, ensuring they understand the instructions and checking the quality of their output.
- +1 ☐ **c** ▶ I delegate meaningful responsibilities based on individual strengths, empowering team members to take ownership of their work while I provide coaching and oversight.
- +1 ☐ **d** ▶ I structure the research environment to decentralize decision-making, delegating authority to leaders within the organization to foster autonomy and scalability.
- ☐ **e** ▶ Not applicable

IMPACT



Which statement best describes your ability to bridge the gap between research and society, through teaching, public engagement, or policy influence?



TEACHING + PUBLIC
COMMUNICATION + POLICY

- +1 ☐ **a** ▶ I understand the value of public engagement and policy relevance, and I contribute to teaching and presenting my own research at small-scale events or in class.
- +1 ☐ **b** ▶ I develop my own teaching style and create content for non-scientific audiences, actively engaging in dialogue with stakeholders to explain the value of my research.
- +1 ☐ **c** ▶ I lead educational programmes and manage public engagement projects, advising colleagues on science-for-policy outputs and supervising the quality of teaching and communication.
- +1 ☐ **d** ▶ I am a renowned communicator and educator who shapes public conception and political priorities, acting as a high-level knowledge broker in crisis situations or policy making.
- ☐ **e** ▶ Not applicable



- +1 ☐ **a** ▶ I understand the role of innovation and the process of commercial exploitation, remaining open to collaboration with external partners when opportunities arise.
- +1 ☐ **b** ▶ I pursue interdisciplinary research and identify ideas for commercialization, developing new ways to collaborate with external partners to turn research into ventures.
- +1 ☐ **c** ▶ I build networks for knowledge exchange and provide strategic support to others' commercialization projects, establishing collaboration platforms for co-creation.
- +1 ☐ **d** ▶ I challenge traditional viewpoints to steer research towards innovation, leading extensive relationships with industry and having a track record of successful technology adoption.
- ☐ **e** ▶ Not applicable

**Which statement best describes your competence in producing, analyzing,
and managing the lifecycle of research data?**

- +1 ☐ **a** ▶ I identify trustworthy sources and analyze non-sensitive data transparently, identifying how to organize and store it digitally in a simple, accessible way.
- +1 ☐ **b** ▶ I autonomously organize data sets to be FAIR (Findable, Accessible, Interoperable, Reusable) and retrievable in a structured environment, integrating data management plans into my daily workflow.
- +1 ☐ **c** ▶ I train and empower team members to work with data in a structured way, applying metrics to evaluate data initiatives and ensuring the team complies with legal and privacy requirements.
- +1 ☐ **d** ▶ I propose new processes and practices for managing digital content in structured environments and am known as an influential advocate of FAIR principles in the field.
- ☐ **e** ▶ Not applicable

SCIENTIFIC INTEGRITY + OPEN DISSEMINATION

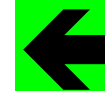


Which statement best describes your competence in applying ethical principles and implementing open access publication strategies?

- +1 ☐ **a** ▶ I have a basic understanding of integrity principles and produce publishable material, seeking appropriate outlets and asking for expert advice when in doubt about ethical decisions.
- +1 ☐ **b** ▶ I actively seek open access alternatives for my publications and track my own research impact, ensuring I am well-versed in ethical conduct and avoiding misconduct independently.
- +1 ☐ **c** ▶ I advise peers on licensing, copyright, and ethical issues, helping less experienced researchers avoid misconduct and actively engaging in the work of ethical committees.
- +1 ☐ **d** ▶ I act as a role model for open science, actively contributing to developing ethical guidelines and advising policy makers on procedures and integrity standards for the sector.
- ☐ **e** ▶ Not applicable

**GREEN
COMP**

Which statement best describes your ability to envision sustainable futures and manage decisions in the face of uncertainty and risk?



**FUTURES LITERACY
+ ADAPTABILITY**

- +1 ☐ **a** ▶ I am aware of the need for sustainable futures and I follow established plans to manage transitions, reacting to changes and uncertainty as they arise in my work.
- +1 ☐ **b** ▶ I independently develop alternative scenarios for my own research projects, identifying the steps needed to achieve them and making conscious decisions to manage ambiguity and risk.
- +1 ☐ **c** ▶ I guide my team in envisioning preferred sustainable futures, helping others navigate complex transitions and managing collective risks in the face of uncertainty.
- +1 ☐ **d** ▶ I imagine and develop systemic alternative scenarios, identifying the strategic steps needed to achieve a preferred sustainable future and making high-stakes decisions to drive institutional adaptation.
- ☐ **e** ▶ Not applicable

POLITICAL AGENCY



Which statement best reflects your competence in navigating political systems and advocating for effective sustainability policies?

- +1 ☐ **a** ▶ I understand how the political system functions regarding sustainability and I can identify instances of political responsibility and accountability for unsustainable behavior.
- +1 ☐ **b** ▶ I autonomously navigate the political system to support my research goals, identifying specific actors responsible for unsustainable practices and advocating for policy changes in my niche.
- +1 ☐ **c** ▶ I advise peers on how to interact with political structures, coordinating efforts to demand accountability for unsustainable behavior and supporting the call for effective policies.
- +1 ☐ **d** ▶ I actively navigate complex political landscapes to demand effective sustainability policies, identifying accountability at a high level and influencing the system to correct unsustainable behaviors.
- ☐ **e** ▶ Not applicable

SYSTEMIC VISION

TOTAL SELF-REGULATION + FLEXIBILITY + EMPATHY

TOTAL MANAGING LEARNING

TOTAL WELLBEING + VALUING SUSTAINABILITY

TOTAL ABSTRACT THINKING + CREATIVITY

TOTAL CRITICAL THINKING

TOTAL STRATEGIC + SYSTEMIC THINKING

TOTAL SEARCH + EVALUATION + MANAGEMENT OF DATA

TOTAL LATERAL THINKING + 7 HATS

TOTAL DECISION MAKING + PRACTICAL INSIGHTS

TOTAL ADMINISTRATIVE THINKING

TOTAL / 10

IMPACT

TOTAL TEACHING + PUBLIC COMMUNICATION + POLICY

TOTAL OPEN INNOVATION + KNOWLEDGE TRANSFER

TOTAL DATA MANAGEMENT

TOTAL SCIENTIFIC INTEGRITY + OPEN DISSEMINATION

TOTAL FUTURES LITERACY + ADAPTABILITY

TOTAL POLITICAL AGENCY

TOTAL / 6

COLLABORATION

TOTAL FLEXIBILITY AND EMPATHY

TOTAL TEAMS + INTERACT + DIVERSITY

TOTAL RESOURCES + NETWORKS + INTERDISCIPLINARY

TOTAL GENERATE CONSENSUS

TOTAL DELEGATION

TOTAL / 5

**It is time to calculate your score:*

1. Transfer the results from your previous pages and add the number of points for each competence.

2. Add the total of points.

3. You can then divide the final score by:

10 for systemic vision

5 for collaboration

6 for impact

#4_ INTERPRETATION OF RESULTS AND IDENTIFICATION OF TRAINING NEEDS

Once you have completed the self-assessment, your scores will help you identify priority areas for development across the three KALEIDOS competence areas: collaboration, systemic vision, and impact.

As a general guideline:

♦ SCORES OF 0–1 (NO KNOWLEDGE / FOUNDATIONAL)

→ These are high-priority areas for training.

You may need structured learning, guidance, and practical experience to build these competences.

♦ SCORE OF 2 (INTERMEDIATE)

→ This indicates a moderate priority.

You have some experience, but further development will help you apply the competence more confidently and in more complex contexts.

♦ SCORES OF 3–4 (ADVANCED / EXPERT)

→ These are strength areas.

You can continue refining these competences and potentially support or mentor others.

#5_ USE OF RESULTS AT INDIVIDUAL AND INSTITUTIONAL LEVEL

◆ INDIVIDUAL PERSPECTIVE (RESEARCHERS)

You have evaluated your knowledge, skills, and abilities across the key competence areas of collaboration, systemic vision, and impact. This process allows you to identify your strengths and areas for development, as well as to define priorities and timelines for learning. Based on these results, you can carry out a personal training needs analysis and design a targeted development plan aligned with your career goals and your engagement in Knowledge Valorisation and Open Science.

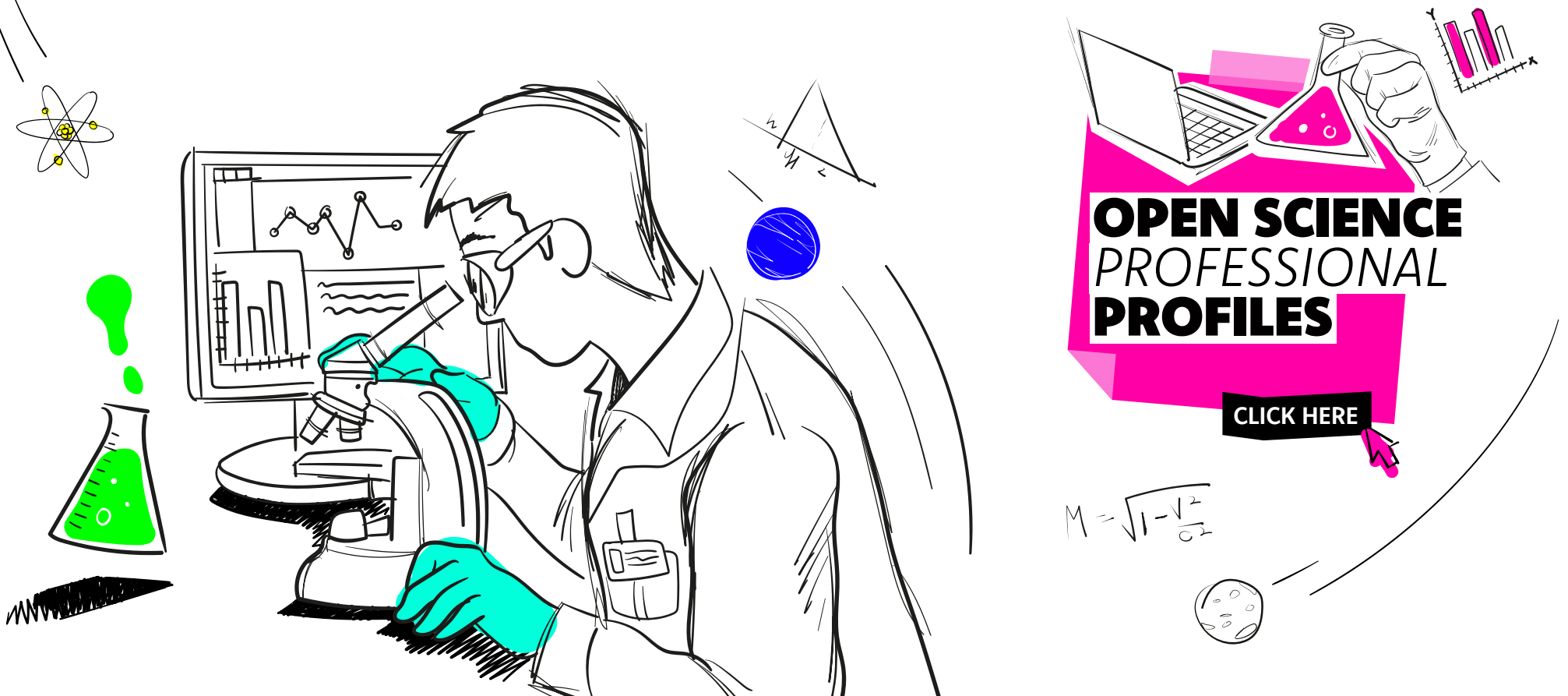
◆ INSTITUTIONAL PERSPECTIVE (HEIS AND RESEARCH CENTRES)

Aggregated results from the self-assessment provide valuable insights into the overall competence levels within the organisation. Institutions can identify common strengths and gaps, assess the alignment of existing training provision with the KALEIDOS competence framework, and prioritise areas for capacity-building. This enables the development of more strategic, evidence-based training programmes and supports institutional efforts to strengthen Knowledge Valorisation practices.

#6 *LEARN MORE ABOUT THE* **OPEN SCIENCE PROFESSIONAL PROFILES**

The KALEIDOS project team carried out a survey with quadruple helix stakeholders to identify the skills and competences needed to put **Open Science** into practice within innovation ecosystems. The analysis is part of the deliverable “Professional skills and competences for researchers, managers and advisors to implement an open science–based innovation management”, developed by the Autonomous University of Barcelona.

To dive into the different profiles for Researcher and Research Managers, visit the **Open Science Professional Profiles** website or read the deliverable at our Zenodo space: <https://zenodo.org/records/17737923>





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