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RE-IMAGINE Ethics-in-Practice Framework

for Responsible AI Use in Higher Education

Prepared within the project:
RE-IMAGINE: Rethinking Digital Transformation in Higher Education through ORRI-Guided Institutional Strategies

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Abstract

This document presents the RE-IMAGINE Ethics-in-Practice Framework, which was developed to promote the responsible use of artificial intelligence (AI) in higher education. The Framework addresses the need for practical mechanisms to help higher education stakeholders translate ethical principles into everyday decision-making. Based on the broader ORRI approach, the RE-IMAGINE Framework translates the concept of responsible innovation into the context of higher education through the following four operational principles: openness, responsibility, reflexivity and inclusiveness. It offers a stakeholder-based approach to identifying risks, clarifying responsibilities, documenting AI use, and promoting responsible decision-making. It was developed through a qualitative, participatory and co-creative process involving institutional analysis, stakeholder engagement, focus groups, workshops, training activities and validation processes. The Framework provides the conceptual and methodological basis for the RE-IMAGINE Toolbox, which offers practical instruments to help educators, students, researchers and institutions implement the Framework. The document also includes annexes containing the full ORRI Translation Map, stakeholder implementation guidance, illustrative scenarios, insights from empirical focus groups in partner university contexts and the training and validation protocol for the Framework and Toolbox application.

Keywords

responsible AI; higher education; ORRI; ethics-in-practice; digital transformation; AI governance; academic integrity; transparency; data protection; stakeholder engagement

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EXECUTIVE SUMMARY

The RE-IMAGINE Ethics-in-Practice Framework was developed as part of the RE-IMAGINE project to promote the responsible, transparent and context-sensitive use of AI in higher education. While ethical principles and regulatory discussions on AI are increasingly recognised, higher education institutions still need operational approaches that help educators, students, researchers and institutional stakeholders make responsible decisions in everyday academic situations. Building on the broader ORRI approach, the RE-IMAGINE Framework translates responsible innovation into higher education practice through four operational principles: openness, responsibility, reflexivity and inclusiveness. Together, these principles provide a practical logic for identifying risks, clarifying responsibilities, documenting AI use, supporting human judgement, and reviewing institutional practices. Rather than providing a strict compliance manual, the Framework offers a structured approach to responsible thinking and action when digital and AI technologies are introduced into teaching, learning, research and governance.

The separate RE-IMAGINE Toolbox provides stakeholder-specific checklists, guidelines, templates and declarations for applying this decision-making logic across teaching, learning, assessment, research and institutional governance. Its core structure comprises the ORRI Translation Map and the Ethics-in-Practice decision-making cycle, while the RE-IMAGINE Toolbox serves as its operational layer. The ORRI Translation Map provides the Framework's translation logic, connecting the four RE-IMAGINE operational principles with stakeholder practices and indicators. Representative instruments derived from this logic are provided in the Toolbox. The decision-making cycle provides a structured process for taking ethically informed action in specific AI-related situations. The Toolbox provides the practical instruments through which the Framework is implemented. The development process included conceptual analysis, mapping the institutional context, developing the ORRI Translation Map, conducting stakeholder focus groups and co-creation workshops and carrying out end-user training and validation activities. This approach ensured that the Framework was informed by both responsible innovation principles and practical challenges identified by higher education stakeholders.

The RE-IMAGINE Toolbox is not a separate model; rather, it is the operational layer of the Framework. It translates the ethical and methodological logic of the Framework into practical instruments, including checklists, guidelines, templates and declarations. These instruments are designed for specific stakeholder groups and support the responsible use of AI in teaching, learning, assessment, research, data protection and institutional governance.

The Framework is intended for institutions with different levels of digital and AI maturity. It was developed in two different institutional settings: Belgrade Metropolitan University and University Adriatic Bar. These settings demonstrate the need for a flexible and transferable approach. The Framework is designed to be applicable in institutions with more structured digital learning environments, where AI-supported practices are emerging, as well as in institutions where digital transformation remains fragmented or only partially embedded.

This document presents the RE-IMAGINE Ethics-in-Practice Framework, outlining its conceptual basis, institutional context, methodological approach, ORRI translation logic, Ethics-in-Practice decision-making cycle, operationalisation through the Toolbox, training and validation processes and transferability and sustainability guidelines. The full set of operational instruments is provided in the separate RE-IMAGINE Ethics-in-Practice Toolbox.

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1.



INTRODUCTION AND CONCEPTUAL FRAMING

1.1 Responsible Digitalisation and AI in Higher Education

Digital technology has become a key part of modern higher education. Learning management systems, online communication platforms, automated assessment tools, data dashboards, content generation systems and AI applications are all becoming increasingly important in the organisation of teaching, learning, research and administration. These developments enable more flexible learning options, personalised support, faster production of materials and improved services. However, these developments also create new ethical and governance challenges that cannot be addressed by technology alone.

In this context, ethics has become a central concern for higher education institutions, as emerging technologies raise new questions concerning academic integrity, privacy, fairness, accessibility, authorship, institutional autonomy and the commercialisation of educational infrastructures. Research on digitalisation and AI in education often highlights problems related to plagiarism, privacy risks, gender and diversity concerns, unequal access to digital resources and the lack of clear rules or guidance for ethical AI use. These issues are especially important in higher education where AI tools may affect learning and assessment processes, educators' and researchers' work, research quality and institutional decision-making.

AI intensifies these challenges because it operates across multiple layers of academic practice. For example, it can support the generation of learning materials, assist with translation and writing tasks, summarise literature, support assessment design, process data, provide student support and contribute to administrative workflows. However, AI outputs may be inaccurate, biased, unverifiable, commercially influenced or insufficiently transparent. The use of AI therefore raises questions concerning authorship, academic integrity, privacy, human oversight, responsibility, accessibility and institutional accountability.

Recent international and European policy developments confirm that these issues are now at the heart of educational governance. The OECD Digital Education Outlook 2026 examines generative AI in teaching and learning scenarios, emphasising that GenAI tools can facilitate learning when guided by clear educational objectives and appropriate pedagogical supervision. UNESCO's Guidance for Generative AI in Education and Research calls for regulation, institutional policies, human capacity development and safeguards to support the equitable, inclusive and human-centred use of generative AI in education and research. At the European level, the EU AI Act is directly relevant to education and vocational training, as AI systems used to determine access to education, admission, assignment or assessment may fall under the high-risk category. This requires increased attention to risk management, transparency, human oversight and fundamental rights.

For higher education institutions, these frameworks point in the same direction. AI adoption should not be treated as a matter of technical innovation alone. Rather, it requires governance structures, transparency mechanisms, risk assessment, human oversight, data protection measures, digital and AI literacy and attention to fairness and inclusion. This is particularly important in universities, where AI can influence teaching, learning, research, assessment and institutional decision-making.

1.2 Key Ethical Challenges

The identification of the key ethical challenges provides the conceptual and methodological foundation for the RE-IMAGINE Ethics-in-Practice Framework. They do not occur separately in practice; rather, they overlap and reinforce one another. For this reason, the Framework treats them as cross-cutting dimensions that need to be considered across teaching, learning, research and institutional governance. The most relevant challenges are summarised in Table 1.1 below.

Table 1.1. Key Ethical Challenges in Higher Education Practice

Key Ethical Challenges	Relevance for Higher Education Practice
Academic integrity and authorship	AI challenges established boundaries between assistance, collaboration, authorship and academic misconduct. Course-level rules and disclosure practices are becoming increasingly necessary.
Transparency and disclosure	Stakeholders need to know when and how AI is used, especially when AI affects learning, assessment, research outputs or institutional services.
Privacy and data protection	AI tools may involve the collection, processing or storage of personal, sensitive or confidential data. Data minimisation and appropriate data protection safeguards are therefore required.
Bias, discrimination and fairness	AI systems may reproduce stereotypes, exclude certain groups or create unequal outcomes. Fairness and accessibility need to be considered before adoption.
Responsibility and human oversight	AI systems cannot assume academic or institutional responsibility themselves. Human actors remain accountable for decisions, outputs and consequences.
Commercialisation and dependency	External platforms and private infrastructures may influence institutional autonomy, data control and public educational values.
Implementation gap and lack of practical guidance	General ethical principles are insufficient without instruments that translate them into concrete questions, criteria and decisions.

1.3 Why an Ethics-in-Practice Framework is Needed

The need for an Ethics-in-Practice Framework emerges from the discrepancy between established principles and their practical application. International and European frameworks have emphasised transparency, accountability, human-centric AI, privacy, fairness and inclusion. These principles are essential, but stakeholders in higher education often require more immediate support. For example, what should a teacher consider when using AI to prepare a course activity? What should a student declare? What should a researcher verify before submitting a paper? What should an institution check before introducing an AI-supported service?

An ethics-in-practice approach is not intended to replace regulation, institutional policies or professional judgement. Instead, it supports their practical application. It provides a link between values and action by helping users identify the relevant context, recognise risks, clarify roles and responsibilities, document decisions and review consequences. This makes it especially relevant for institutions that are still developing coherent AI governance structures.

In this Framework, Ethics-in-Practice is defined as a systematic process that translates ethical principles into responsible decision-making in pedagogical, research-related and institutional contexts. The emphasis shifts from the general question of what is ethically correct to the more practical question of how a responsible decision can be made in a specific context by a particular stakeholder, paying attention to the risks, responsibilities and institutional conditions involved. This shift is central to the RE-IMAGINE approach and is supported by the practical instruments provided through the RE-IMAGINE Toolbox.

1.4 Purpose and Scope of the Framework

The RE-IMAGINE Ethics-in-Practice Framework has been developed to support the responsible, transparent and context-sensitive use of digital and AI technologies in higher education. It applies to teaching, learning, research and institutional governance, with particular attention to situations in which artificial intelligence and other digital tools shape academic practices, decision-making processes, communication, assessment, research workflows, data use and institutional services.

The Framework has the following purposes:

- To operationalise the broader ORRI approach through the RE-IMAGINE operational principles and practical decision-making questions within higher education contexts;
- To support responsible AI and digital technology use in teaching, learning, research and institutional governance;
- To clarify stakeholder roles and responsibilities when AI and digital tools are used;
- To strengthen ethical awareness, critical digital literacy and responsible decision-making among educators, students, researchers and institutional actors;
- To provide the conceptual and methodological basis for the RE-IMAGINE Toolbox;
- To support institutional learning, training and validation around responsible digitalisation;
- To remain adaptable to institutions with different levels of digital and AI maturity.

The Framework has been designed for a number of stakeholder groups within higher education:

- **Educators, including academic staff and teaching practitioners** involved in course design, delivery, assessment, feedback and student engagement;
- **Students,** as active participants in digital learning environments, users of AI-supported tools and co-creators of academic knowledge;
- **Researchers**, who may use AI and digital tools in literature reviews, data processing, writing, translation, publication and research communication;
- **Higher education institutions**, including management, quality assurance units, ethics committees, academic services, student support services, IT units and data protection officers responsible for shaping, supporting and overseeing ethical digital practices.

1.5 Objectives of the Framework

The RE-IMAGINE Ethics-in-Practice Framework pursues the following interconnected objectives:

1. To support the institutionalisation of the ORRI approach

Building on the broader ORRI approach, the Framework uses the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness to structure practical questions, stakeholder practices and decision-making processes. By doing so, it supports the long-term institutionalisation of responsible digitalisation in higher education and contributes to sustainable organisational change.

2. To strengthen ethical awareness and critical digital literacy

The Framework provides guidance for educators, students, researchers and institutional actors to recognise the ethical dimensions of digital and AI technologies. These include issues of transparency, privacy, data protection, authorship, academic integrity, bias, power, access, agency and institutional accountability. The objective is to promote thoughtful engagement with technology, as opposed to passive acceptance or unquestioning rejection.

3. To promote responsible and transparent use of AI and digital technologies

The Framework fosters practices that make the use of AI and digital tools visible, explainable and accountable. It facilitates effective communication regarding AI use, emphasising when, how and why AI is used. Additionally, it promotes the documentation of AI-assisted processes where applicable, thereby supporting transparency and traceability. This contributes to institutional trust, academic integrity and responsible participation in digitally mediated academic environments.

4. To clarify roles and responsibilities across stakeholder groups

Responsible AI use in higher education depends on shared but differentiated responsibilities. Educators, students, researchers and institutions do not have the same roles, risks or decision-making authority. The Framework clarifies stakeholder responsibilities regarding tool selection, output verification, data protection, disclosure, pedagogical appropriateness, research integrity, governance and review.

5. To build internal ethical capacity within higher education institutions

The Framework assists institutions in developing their own capacity to anticipate, identify and respond to ethical challenges in digital and AI-supported environments. Instead of relying solely on external regulation or technical solutions, it emphasises institutional learning, staff development, participatory reflection and the integration of responsible digital practices into routine academic activities.

6. To strengthen critical evaluation of AI-generated content through reflection

AI-generated outputs may be inaccurate, biased, misleading, unverifiable or inappropriate for academic use. The Framework facilitates critical evaluation of AI outputs and encourages users to recognise risks associated with misinformation, fabricated references, stereotypes, manipulation, over-reliance and unequal access. These issues are addressed not only as technical problems, but also as ethical and pedagogical questions requiring human judgement.

7. To provide the conceptual and methodological basis for the RE-IMAGINE Toolbox

The Framework provides the conceptual and methodological basis for the RE-IMAGINE Toolbox, which translates its decision-making logic into stakeholder-specific operational instruments.

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INSTITUTIONAL DIGITAL AND AI CONTEXT

2.1 Belgrade Metropolitan University: Structured Digital Learning and Emerging AI-supported Practices

Belgrade Metropolitan University (BMU) is an institution of higher education that has adopted a digitally oriented approach to its educational processes, with a long-standing commitment to online and blended learning formats. The pedagogical approach is supported by institutional digital platforms, multimedia learning materials, asynchronous access to resources and synchronous communication with teaching staff. This environment provides a relevant context for examining how AI can be integrated into teaching and learning while maintaining pedagogical quality and ethical oversight.

The BMU context is particularly relevant because its established digital learning environment provides a basis for a more structured approach to experimenting with AI in teaching and learning. The emergence of AI-supported practices in the development of teaching materials, course design, assessment-related preparation and quality assurance creates opportunities and responsibilities. AI can support greater efficiency and more personalised learning, as well as the development of educational resources. However, clear processes are also required to ensure human review, transparency, accuracy verification, accessibility, data protection and institutional responsibility. The ethical challenge in this context is not only the availability of digital or AI tools, but also how these tools are governed, reviewed, standardised and connected to institutional quality assurance. The BMU context therefore illustrates how responsible AI use requires alignment between pedagogical design, institutional procedures, staff training, data governance, quality assurance and continuous review.

2.2 University Adriatic Bar: Moodle-supported Digital Transformation and Emerging AI Practices

The University Adriatic Bar (UA) is an example of a gradual and partially institutionalised digital transformation. Moodle-based learning environments and digital communication tools support teaching, the distribution of materials, assignments and interaction with students. Digital tools are also employed in specific administrative and international cooperation processes. These practices demonstrate an established operational basis for digital education, while digitalisation across institutional functions continues to develop through a combination of centrally supported systems and unit-specific practices.

The UA context also highlights a different set of institutional needs. As digitalisation develops across different institutional functions and units, there may be a need for further coordination of practices, policy development, staff support and the alignment of digital tools and approaches. The adoption of AI in such contexts may initially involve individual experimentation and the gradual development of shared institutional approaches. This emphasises the value of clear, adaptable and accessible frameworks that can support responsible use while allowing institutions to develop governance approaches in line with their specific organisational contexts and needs. Consequently, the Framework does not prescribe a uniform institutional model. The Framework has been designed to function both in institutions with more structured digital environments and in institutions where

digital transformation is still developing. This makes the RE-IMAGINE approach relevant for a broader range of higher education institutions.

2.3 Comparative Insights and Shared Challenges

Table 2.1 presents the comparative insights from BMU and UA, highlighting shared challenges, contextual differences and implications for the development of the Framework.

Table 2.1. Comparative Insights from BMU and UA

Dimension	BMU Context	UA Context	Framework Implication
Digital infrastructure	Established online and blended learning practices.	Moodle-supported digital environment combined with institution and unit-level digital practices.	The Framework must be adaptable to different institutional baselines.
AI-related readiness	Emerging AI-supported teaching and learning practices.	Emerging AI use across teaching, research and institutional practice.	The Framework must support AI adoption across different institutional contexts.
Governance needs	Standardisation, quality assurance, human review and data governance.	Further development and harmonisation of AI-related guidance and institutional coordination.	Responsible AI requires both pedagogical and governance mechanisms.
Stakeholder support	Responsible AI-supported design and assessment	AI literacy, responsible use and adaptable institutional guidance.	Instruments must be accessible and adaptable to different stakeholder needs and institutional contexts.
Transferability	Illustrates a highly structured digital learning context.	Illustrates a flexible institutional context combining established digital tools with evolving AI practices.	The Framework should avoid context-specific prescriptions.

2.4 Implications for Framework Development

The comparison of BMU and UA demonstrates that responsible AI use in higher education cannot be reduced to the availability of technology. Institutions vary significantly in terms of infrastructure, policy maturity, staff competencies, administrative capacity, strategic priorities and organisational culture. Consequently, the Framework for responsible AI use must prioritise transferable principles and adaptable practices over fixed institutional procedures.

Three implications emerge from this comparison. Firstly, the Framework must be stakeholder-sensitive, given that the responsibilities of educators, students, researchers and institutional actors differ. Secondly, the Framework must be context-sensitive; the same AI tool may raise different risks depending on whether it is used in assessment, research, administration or student support. Thirdly, the Framework must be operational in nature, providing users with practical guidance for decision-making, documentation and review while also strengthening ethical awareness. Table 2.2 summarises the shared challenges identified through the comparison and the corresponding Ethics-in-Practice responses developed by the Framework.

Table 2.2. Shared Challenges and Ethics-in-Practice Responses

Shared Challenge	Ethics-in-Practice Response
Unclear boundaries of acceptable AI use	Course-level and institutional guidance, disclosure practices and stakeholder-specific decision criteria.
Limited verification of AI outputs	Structured questions on accuracy, sources, bias, limitations and human review.
Data protection and privacy uncertainty	Risk identification, data minimisation, confidentiality checks and institutional oversight.
Uneven digital competences	Training, accessible instruments and adaptable implementation approaches.
Need for stronger institutional coordination	Governance questions, role clarification and monitoring procedures.

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METHODOLOGICAL APPROACH: CO-CREATION AND FRAMEWORK DEVELOPMENT

3.1 Methodological Approach

The RE-IMAGINE Ethics-in-Practice Framework was developed using a qualitative, participatory and co-creative approach. This approach was chosen because the ethical use of AI in higher education is a socio-technical issue. It cannot be adequately addressed by analysing technology alone. Rather, it requires attention to institutional contexts, professional roles, stakeholder expectations, pedagogical practices, research integrity, data protection and organisational governance.

Qualitative inquiry enabled the project to explore how stakeholders perceive AI-related challenges in their day-to-day work. Participatory engagement ensured that the Framework was informed by the experience of end users as well as external principles. Co-creation supported the iterative development of instruments that are understandable, relevant and applicable in real higher education settings.

This methodological approach is also consistent with the project's broader ORRI orientation. Within RE-IMAGINE, this orientation is translated into the operational principles of openness, responsibility, reflexivity and inclusiveness, which emphasise stakeholder engagement, accountable design and implementation, critical reflection on assumptions and effects and inclusive participation and use. The process through which the Framework was developed therefore reflects the RE-IMAGINE operational principles that it promotes.

3.2 Development Phases

Table 3.1 presents the main development phases of the RE-IMAGINE Ethics-in-Practice Framework and their role in the overall design process.

Table 3.1. Development Phases of the Framework

Phase	Purpose	Main Output
Conceptual framing	Review ethical approaches and responsible innovation concepts relevant to AI in higher education.	Initial conceptual basis for the Framework.
ORRI Translation Map	Operationalise the broader ORRI approach through stakeholder practices, ethical questions and indicators.	Preliminary ORRI Translation Map.
Institutional contextualisation	Analyse BMU and UA as different digital and AI-related institutional contexts.	Contextual basis for transferability.
Stakeholder engagement (focus groups)	Collect perspectives from educators, students, researchers and institutional actors.	Empirical input on risks, needs and expectations.
Co-creation and instrument development	Transform identified needs into practical instruments and questions.	Draft Toolbox instruments.
Training and validation	Test clarity, relevance and usability of the Framework and Toolbox with end-users.	Feedback for final refinement.
Finalisation	Integrate stakeholder feedback and produce a coherent Framework and Toolbox.	Final RE-IMAGINE Framework and Toolbox.

3.3 Stakeholder Engagement

Stakeholder engagement was central to the development process. The framework distinguishes between four main groups of stakeholders — educators, students, researchers and institutional actors — because their roles, risks and support needs relating to AI differ. These differences informed the structure of the focus groups and the subsequent development of the Toolbox instruments tailored to each stakeholder group.

The stakeholder-based approach prevents the Framework from becoming too general. Rather than treating AI use as a single issue, it recognises that ethical risks and responsibilities change depending on who is using AI, for what purpose, with which data and with what institutional consequences. This differentiation between stakeholders is reflected in both the ORRI Translation Map and the

structure of the Toolbox. Table 3.2 presents the main stakeholder groups and the responsibility questions that guide the application of the Framework across different contexts of AI use.

Table 3.2. Stakeholder Groups and Responsibility Questions

Stakeholder Group	Main AI-Related Practices	Typical Responsibility Questions
Educators	Teaching design, material development, assignment design, feedback, assessment support.	How should AI use be disclosed? What remains the responsibility of the educator? How are students guided?
Students	Learning support, writing assistance, translation, brainstorming, evaluation of AI outputs.	What must be declared? How are outputs verified? What is the student's own contribution?
Researchers	Literature review, data processing, coding, writing, translation, editing, publication support.	How is AI use documented? Are data protected? Are outputs verified?
Institutions	Governance, procurement, digital services, student support, quality assurance, data protection.	Who approves AI systems? How are users informed? How are risks monitored?

3.4 Empirical Refinement

The Framework was refined iteratively. The preliminary ORRI Translation Map served as an analytical guide to understanding how openness, responsibility, reflexivity and inclusiveness could be operationalised. Stakeholder focus groups and discussions then helped to identify the most relevant issues in practice. These included uncertainty surrounding the acceptable use of AI, concerns regarding student work and authorship, difficulties in verifying AI-generated content, data protection risks, and the requirement for institutional guidance.

The refinement process was not mechanical. The project did not simply apply external principles to the institutional context. Instead, it moved between principles and practice. ORRI concepts helped to structure the focus group discussions and to inform the development of the focus group questions, while stakeholder feedback clarified where practical instruments were needed. The final Framework therefore combines a normative structure with empirical sensitivity.

3.5 How the Empirical Insights Shaped the Framework

Table 3.3 summarises how empirical insights informed the design of the Framework by linking identified needs with RE-IMAGINE operational principles, framework responses and operational implications.

Table 3.3. Empirical Insights and Framework Responses

Empirical Need	RE-IMAGINE Operational Principles	Framework Response	Operational Implication
Need for clarity	Openness	AI use should be communicated through clear expectations, disclosure and accessible guidance.	Disclosure templates, student declarations and institutional transparency rules.
Need for training	Responsibility	Responsible AI use requires structured AI literacy for staff and students.	Training sessions, responsible AI guides and support materials.
Need to redesign assessment	Reflexivity	Assessment practices need to account for AI use, verification and student understanding.	Assessment guide, oral and mixed assessment methods and critical reflection prompts.
Need for institutional support	Responsibility	Individual effort is insufficient without procedures, roles and governance mechanisms.	AI adoption decision guide and institutional governance/data protection checklist.
Need for fairness	Inclusiveness	AI should not amplify inequalities in access, skills or learning outcomes.	Inclusive design guide, accessibility considerations and alternative non-AI options.

3.6 Limitations

The Framework was developed within a specific project and a limited number of institutional contexts. It should therefore be understood as an adaptable framework for transfer, rather than as a universal or exhaustive model. Its relevance depends on local adaptation, further testing, and institutional commitment. While the validation process provides initial evidence of the Framework's usability and relevance, continued use in different contexts will be necessary to strengthen and refine it over time.

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FROM ORRI TO ETHICS-IN-PRACTICE

4.1 The Role of ORRI in the Framework

Within the RE-IMAGINE Framework, the broader ORRI approach is translated into practice through four RE-IMAGINE operational principles (openness, responsibility, reflexivity and inclusiveness) which provide the operational structure for shifting from ethical reflection to context-sensitive decision-making. Rather than functioning as abstract concepts, these operational principles are applied as complementary perspectives for examining how AI is introduced, used and evaluated in higher education. Each principle directs attention to a distinct yet interconnected dimension of responsible practice. Openness asks whether the use of AI is transparent and understandable. Responsibility asks who is accountable for decisions, outputs, data and consequences. Reflexivity asks whether assumptions, limitations and unintended effects are critically examined. Inclusiveness asks whether the needs and access conditions of different users are considered.

This RE-IMAGINE operational logic is particularly well-suited to higher education, where AI use involves multiple stakeholders and cannot be governed at the level of individual behaviour alone. Responsible AI requires a combination of individual judgement, pedagogical design, research ethics, institutional policy, data governance and continuous learning.

4.2 Ethics-in-Practice Questions

Table 4.1 presents the Ethics-in-Practice questions developed for each RE-IMAGINE operational principle and explains their practical meaning for responsible AI decision-making.

Table 4.1. Ethics-in-Practice Questions

RE-IMAGINE Operational Principles	Ethics-in-Practice Question	Practical Meaning
Openness	Is AI use transparent, explainable and appropriately communicated?	AI use should be disclosed where relevant. Users should understand its role, and the relevant rules should be accessible.
Responsibility	Who is accountable for the use, outputs and consequences of AI?	Human actors remain responsible for decisions, academic integrity, data protection and institutional oversight.
Reflexivity	Are risks, limitations, assumptions and unintended effects critically examined?	AI outputs and practices should be verified, monitored, reviewed and adapted.
Inclusiveness	Are access, fairness, diversity and different user needs considered?	AI practices should avoid exclusion and support accessibility, fairness and alternatives where needed.

4.3 The ORRI Translation Map

The ORRI Translation Map was developed to bridge the gap between the broader ORRI approach and its implementation. It translates the RE-IMAGINE operational principles into ethical objectives, stakeholder practices, indicators, and informs the development of representative instruments provided in the RE-IMAGINE Toolbox. Rather than replacing stakeholder engagement, the Map facilitates it. It helps the project team identify the questions that need to be asked and the support that may be necessary for each stakeholder group.

The Translation Map was initially developed as a preliminary analytical structure based on literature and project objectives. It was then refined through stakeholder engagement and the iterative development of practical instruments. The final version provides a coherent overview of how the four RE-IMAGINE operational principles are applied to educators, students, researchers and institutions. Table 4.2 presents the condensed ORRI Translation Map, showing how these principles are translated into stakeholder practices.

Table 4.2. Condensed ORRI Translation Map: Stakeholder Practices

RE-IMAGINE Operational Principle	Educators	Students	Researchers	Institutions
Openness	Explain and disclose AI use in teaching and assessment.	Acknowledge and explain AI use in learning tasks.	Report AI use in research and publication processes.	Provide transparent institutional rules and communication.
Responsibility	Design pedagogically meaningful AI-supported activities and retain oversight.	Use AI according to rules, verify outputs and protect data.	Ensure research integrity, verification and data protection.	Define governance, oversight and accountability structures.
Reflexivity	Reflect on effects of AI on learning, assessment and educator judgement.	Critically evaluate AI-generated content and learning processes.	Assess methodological implications, limitations and bias.	Monitor and review institutional AI practices and incidents.
Inclusiveness	Adapt materials to diverse needs and accessibility requirements.	Use AI in ways that support fair and inclusive learning.	Consider representation, diversity and fairness in AI-supported research.	Support equitable access, accessibility and alternative options.

The full version of the ORRI Translation Map is provided in Annex 1.

4.4 Cross-Cutting Ethical Dimensions

Several ethical dimensions cut across the four RE-IMAGINE operational principles. For example, transparency is linked to openness, but it also supports responsibility and trust. Data protection is connected to responsibility while also affecting inclusiveness and institutional governance. Bias and fairness are connected to inclusiveness, yet also require reflective review and human oversight. Academic integrity is linked to responsibility, but also involves openness through disclosure and reflexivity through critical engagement.

The Framework therefore avoids treating ethical issues as isolated categories. Instead, it asks users to analyse how different dimensions interact in a given situation. For instance, the use of AI in assessment simultaneously raises questions of transparency, responsibility, data protection, fairness and human oversight. Checklists and guidelines provided through the RE-IMAGINE Toolbox can support this process by making these dimensions visible and actionable.

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THE RE-IMAGINE ETHICS-IN-PRACTICE FRAMEWORK: STRUCTURE AND DECISION-MAKING LOGIC

5.1 Definition of the Framework

The RE-IMAGINE Ethics-in-Practice Framework is a stakeholder-based, ORRI-informed decision-making model that promotes the responsible use of AI in higher education by providing practical questions, risk assessment processes and clearly defined responsibility structures. It assists educators, students, researchers and institutional stakeholders in identifying ethical risks, clarifying responsibilities, documenting AI use and making context-sensitive decisions.

While the Framework is not a checklist, checklists can be used to operationalise parts of it. It is not a policy template, although it can inform policy development. It is also not a compliance audit, although it supports compliance-oriented reflection. Ultimately, it is a structured model for translating ethical principles into responsible practice through the RE-IMAGINE operational principles.

5.2 Ethics-in-Practice Decision-Making Cycle

The Ethics-in-Practice Decision-Making Cycle provides a structured process for guiding responsible AI-related decisions. Building on the broader ORRI approach and the RE-IMAGINE operational principles, it provides a sequence of practical steps that support context identification, risk assessment, decision-making, documentation and continuous review.

1. Context identification: define the AI-related situation, including the task, tools, data, users and institutional setting.

2. Stakeholder roles and responsibilities: identify who is involved and who is responsible for decisions, outputs and consequences.

3. RE-IMAGINE operational reflection: use practical questions to apply the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness.

4. Identify ethical, pedagogical, research, data protection and governance risks.

5. Responsible decision: determine whether the use of AI is appropriate, whether additional safeguards or measures are required, or whether it should be avoided.

6. Documentation and transparency: record the use, decision, safeguards, disclosure statement or responsible action.

7. Review and adaptation: monitor the effects, collect feedback, and revise practices, tools, or rules when necessary.

Table 5.1 summarises the Ethics-in-Practice Decision-Making Cycle by linking each step with a guiding question and an expected practical output.

Table 5.1. Ethics-in-Practice Decision-Making Cycle

Step	Guiding Question	Expected Output
1. Context	What is the AI-related situation?	Description of task, tool, data and setting.
2.Stakeholder roles and responsibilities	Who uses AI and who is accountable?	Clarified roles and responsibilities.
3. RE-IMAGINE operational reflection	Which RE-IMAGINE operational principles are relevant?	Ethical orientation for decision-making.
4. Risk identification	What can go wrong or create harm?	List of risks and concerns.
5. Decision	What use is appropriate under which conditions?	Decision and safeguards.
6. Documentation	How is AI use recorded and communicated?	Disclosure, statement, checklist or record.
7. Review	How will the practice be monitored and improved?	Feedback, monitoring and revision plan.

5.3 Risk and Responsibility Mapping

Risk identification is central to the Framework. However, risk is not understood only as technical failure. In higher education, risk can be pedagogical, ethical, legal, institutional or social. For example, a technically functional AI tool may still cause problems if it undermines learning, introduces biased examples, processes confidential data, produces unverifiable sources, or is used without adequate disclosure.

Responsibility mapping complements risk identification. Once a risk has been identified, the Framework helps clarify who is responsible for preventing, mitigating or reviewing it. Responsibility may lie with an individual educator, student, researcher, ethics committee, quality assurance unit, data protection officer, IT service, institutional management or a combination of these. Table 5.2 presents the risk and responsibility mapping approach by linking identified risks with the relevant actors responsible for prevention, mitigation and review.

Table 5.2. Risk and Responsibility Mapping

Risk Type	Example	Responsible Actors
Pedagogical risk	AI-generated materials do not match learning outcomes or student level.	Educator; programme coordinator; quality assurance.
Integrity risk	Student uses AI without disclosure or cannot explain submitted work.	Student; educator; institution through rules.
Research risk	AI-generated references or interpretations are not verified.	Researcher; co-authors.
Data risk	Personal or sensitive data are entered into external AI tools.	User; institution; data protection officer.
Bias risk	AI output reproduces stereotypes or excludes perspectives.	Educator; researcher; institution; tool evaluator.
Governance risk	AI system is introduced without clear oversight or monitoring.	Institutional management; IT; ethics committees and quality assurance bodies.

5.4 Documentation, Transparency and Review

Documentation is the practical embodiment of openness and responsibility. It enables stakeholders to explain how and why AI was used, what was verified, which safeguards were applied and what decisions were made. Without documentation, ethical reflection remains informal and difficult to review. With documentation, AI practices become more transparent, comparable and open to systematic improvement.

Review is the practical expression of reflexivity. AI use is not a one-time decision. Tools change, institutional needs evolve, student practices shift and regulatory expectations develop. The Framework therefore emphasises the need for regular review, particularly when AI systems impact assessment, research outputs, student services, data processing or institutional decision-making.

5.5 From Framework to Operational Instruments

The Framework is operationalised through instruments that facilitate the application of the decision-making cycle by users. Each instrument should answer five practical questions: who uses it; when it is used; which risks it assesses; what outputs it produces and which RE-IMAGINE operational principles it supports. This logic supports consistency across the Toolbox while allowing instruments to remain stakeholder-specific. Table 5.3 presents the key design questions used to structure the RE-IMAGINE Toolbox instruments and ensure consistency across different stakeholder contexts.

Table 5.3. Instrument Design Questions

Instrument Design Question	Purpose
Who uses the instrument?	Defines stakeholder group and primary user role.
When is it used?	Situates the instrument in a concrete workflow or decision point.
Which risks does it assess?	Connects the instrument to ethical, pedagogical, research or governance concerns.
What is the result?	Clarifies the expected decision, statement, record or action resulting from the use of the instrument.
Which RE-IMAGINE operational principles does it support?	Maintains alignment between the instrument and the Framework.

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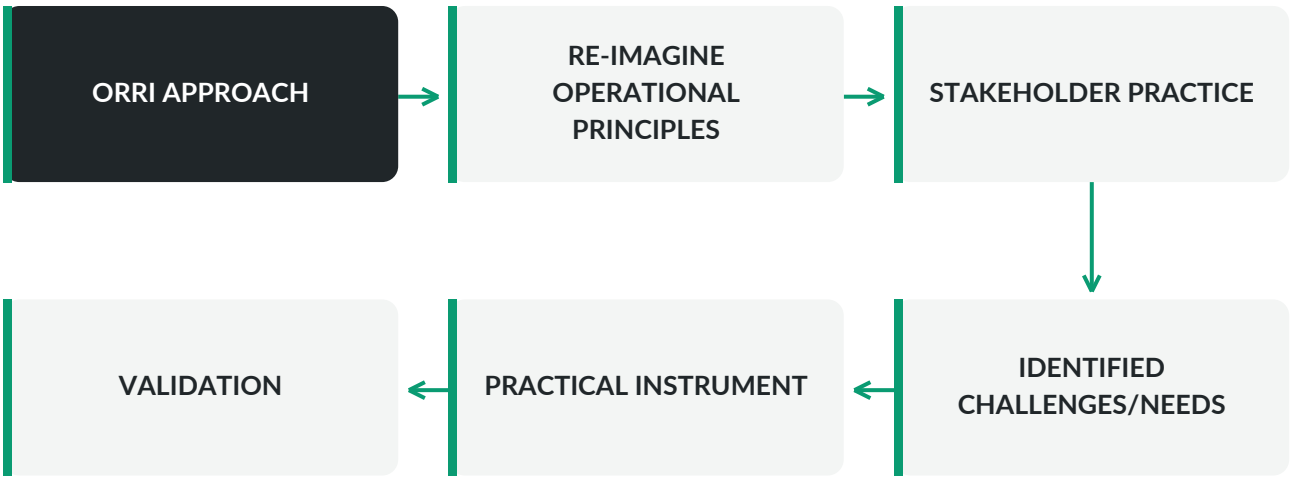
OPERATIONALISATION THROUGH THE RE-IMAGINE TOOLBOX

6.1 Toolbox as the Operational Layer of the Framework

Conceptually, the Toolbox is grounded in the ORRI Translation Map, which establishes the link between the RE-IMAGINE operational principles, ethical objectives, stakeholder practices and indicators. This structure is further refined through empirical insights obtained from focus groups and co-creation workshops, helping to align the Toolbox with practical challenges and institutional conditions.

Each instrument within the Toolbox is developed according to a consistent methodological logic. Figure 6.1 illustrates this logic and its application in the development of the Toolbox instruments:

Figure 6.1. Methodological Logic of the Toolbox



Based on this methodological logic, the Toolbox provides practical instruments for applying the Framework to decision-making, documentation, transparency and risk assessment. The complete set of tools is available in the RE-IMAGINE Ethics-in-Practice Toolbox document.

The Toolbox is stakeholder-centred, reflecting the different responsibilities, risks and decision-making contexts of educators, students, researchers and institutional actors. This structure is presented in Section 6.3.

6.2 Types of Instruments

The Toolbox consists of several complementary types of instruments, each designed to support a specific aspect of responsible AI use and decision-making. Table 6.1 summarises their main functions and expected outputs.

Table 6.1. Types of Toolbox Instruments

Instrument Type	Function	Typical Output
Evaluation tools / checklists	Support structured assessment of risks, suitability, quality and safeguards.	Decision, risk profile, mitigation measures or recommendation.
Guidelines	Provide process-oriented guidance for responsible practice.	Recommended actions, procedures or practice guidance.
Templates and declarations	Support transparency, disclosure and standardised documentation.	AI use statement, declaration, policy note or documented record.

6.3 Stakeholder-Oriented Structure

The Toolbox adopts a stakeholder-oriented structure, recognising that responsible AI use requires different forms of guidance and support for different user groups. Table 6.2 presents the stakeholder-oriented and cross-cutting structure of the Toolbox, linking core functional areas with representative instruments.

Table 6.2. Stakeholder-Oriented Structure of the Toolbox

Stakeholder/Scope	Core Functional Area	Representative Instruments
Cross-cutting	Evaluation of digital and AI tools.	Digital and AI Tool Evaluation Sheet.
Educators	Teaching material design, assessment and responsible AI-supported learning.	Teaching Materials Design and Inclusive Learning Guide; Assessment Guide; AI Use Disclosure Template.
Students	Responsible AI use, critical evaluation and transparency.	Responsible AI Use Student Guide; AI Output Evaluation Checklist; AI Use Declaration Template.
Researchers	Research integrity, verification, transparency and data protection.	Researcher AI Use and Data Protection Checklist; AI Use Statement Template.
Institutions	Governance, ethical oversight, data protection and strategic AI adoption.	Institutional AI Governance and Data Protection Checklist; AI Adoption Decision Guide.

6.4 Operational Layers

The Toolbox is organised across three complementary operational layers:

Level 1 – General Ethical Use
Focuses on awareness, transparency and responsible use of digital and AI tools.

Level 2 – Practice-Oriented Application
Focuses on teaching, learning, assessment and research practices.

Level 3 – Governance and Decision-Making
Focuses on institutional coordination, ethical oversight, data protection and strategic implementation.

The three layers are complementary rather than sequential and do not represent levels of institutional maturity. Some instruments may operate across more than one operational layer depending on context and stakeholder needs. Table 6.3 provides an overview of the operational layers of the Toolbox, including their purposes and representative examples.

Table 6.3. Operational Layers of the Toolbox

Layer	Purpose	Examples
Level 1 – General Ethical Use	Supports awareness, transparency and responsible use of digital and AI tools.	Tool evaluation, student guidance, AI use disclosure.
Level 2 – Practice-Oriented Application	Supports integration into teaching, learning, assessment and research workflows.	Teaching material design, assessment guidance, researcher checklist.
Level 3 – Governance and Decision-Making	Supports institutional policy, oversight, data protection and strategic adoption.	Institutional governance checklist, AI adoption decision guide.

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VALIDATION, TRAINING AND END-USER FEEDBACK

7.1 Purpose of Training and Validation

Training and validation were integral to developing and finalising the Framework and Toolbox. This process familiarised end users with the framework's logic and how the broader ORRI approach is translated into practical decision-making through the RE-IMAGINE operational principles. It also gathered feedback on the clarity, relevance, usability and practical applicability of the operational instruments.

7.2 Training Design

The training is structured to progress from conceptual orientation to practical application. Participants are first provided with a concise yet comprehensive introduction to the Framework. The instruments are then examined through the following four thematic areas:

- the evaluation of digital and AI tools;
- course planning and the development of teaching materials;
- assessment, student work and academic integrity; and
- the use of AI in research and institutional governance.

The training structure is summarised in Table 7.1, which presents the main components of the activity and their respective functions.

Table 7.1. Training Components and Their Functions

Training Component	Function
Introductory orientation	Explains responsible AI use, ethics-in-practice and how the broader ORRI approach is operationalised within the Framework.
Toolbox overview	Shows how the Framework is operationalised through stakeholder-oriented instruments.
Thematic sessions	Engage participants with instruments in concrete areas of practice.
Instrument demonstration	Presents who uses each tool, when it is used, which risk it addresses, what result it produces and which RE-IMAGINE operational principles it supports.
Applied activity	Participants fill in or critically examine selected instruments.
Feedback collection	Gathers evidence on clarity, relevance, usability and adaptation needs.

7.3 End-user Engagement

End-user engagement treats participants as active contributors to the final instruments. As professional users, they assess their practical applicability and identify where questions need clarification, shortening, expansion or adaptation to institutional procedures.

During the presentation of each instrument, participants can be engaged through short scenarios and focused questions. Rather than reading the full document aloud, the facilitator presents the stakeholder, the situation of use, the risk focus, the expected output and alignment with the RE-IMAGINE operational principles. Participants are then asked to assess whether the instrument would support responsible decision-making in realistic situations. Table 7.2 presents the validation questions used to assess the clarity, relevance and practical applicability of the Toolbox instruments.

Table 7.2. Validation Questions and Assessment Purposes

Validation Question	Purpose
Is the instrument understandable?	Checks language, structure and clarity.
Is it relevant to your role?	Checks stakeholder fit and professional usefulness.
Does it address a real risk?	Checks practical relevance.
Does it lead to a concrete decision or action?	Checks operational value.
Is it feasible for regular use?	Checks length, format and institutional practicality.
What should be adapted?	Identifies refinements for the final version.

7.4 Feedback Integration into Finalisation

Both the Framework and the Toolbox are refined using feedback from training and validation. At the Framework level, feedback indicates whether the ethics-in-practice logic is clear, and whether the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness can be meaningfully applied through practical questions. At the Toolbox level, feedback indicates whether the instruments are usable and appropriately structured, and whether they are relevant to everyday work.

Particular attention is given to the balance between completeness and usability. While instruments must cover relevant risks, they must not become so long or technical that stakeholders avoid using them. Therefore, validation supports not only content improvement, but also decisions regarding format and communication.

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TRANSFERABILITY AND INSTITUTIONAL ADOPTION

8.1 Applicability across Higher Education Contexts

The Framework is designed to be transferable to different contexts within higher education. This does not mean that every institution should implement the Framework in exactly the same way. Rather, it means that the conceptual logic can be adapted to local conditions while maintaining a consistent ethical foundation. The Framework provides a set of common questions to which institutions provide context-specific answers.

Different institutions may use the Framework for different purposes. An institution with a more structured digital learning environment may use the Framework to review AI-supported systems, strengthen quality assurance practices related to AI use, and align AI adoption with institutional strategy. A less digitally integrated institution, on the other hand, may use it to begin developing policies, training staff and establishing basic transparency and data protection practices. In both cases, the same RE-IMAGINE Ethics-in-Practice questions remain relevant.

8.2 Adaptation to Institutional Digital and AI Contexts

Adaptation should consider existing digital infrastructure, governance mechanisms, staff competences, data protection capacity, institutional policies and local teaching and research practices. The Framework provides a common ethical logic, while the implementation of instruments can be adjusted to institutional needs and resources.

8.3 Conditions for Institutional Adoption

Effective institutional adoption of the Framework depends on several enabling conditions:

- Visible institutional support and clear ownership of responsible AI practices.
- Alignment with existing teaching, research, quality assurance and data protection procedures.
- Training for staff and students that goes beyond technical implementation.
- Availability of simple, stakeholder-oriented instruments.
- Clear procedures for disclosure, documentation and review.
- Mechanisms for feedback, monitoring and continuous improvement.
- Adaptation to local regulations, institutional policies and disciplinary cultures.

When adopted by institutions beyond the RE-IMAGINE project context, the Framework should be introduced through a short orientation session. Users should first understand the ethics-in-practice logic before they are asked to apply individual instruments. This prevents the Toolbox from being perceived as a bureaucratic set of forms and clarifies its function as a support for responsible decision-making. Table 8.1 presents the main steps for institutional adoption of the Framework and the corresponding institutional actions.

Table 8.1. Institutional Adoption Steps

Adoption Step	Institutional Action
1. Context review	Identify current AI uses, existing policies and stakeholder needs.
2. Stakeholder mapping	Define who should be involved: educators, students, researchers, services, management.
3. Framework orientation	Introduce the RE-IMAGINE operational principles through practical decision-making questions.
4. Toolbox selection	Select relevant instruments rather than applying all tools at once.
5. Pilot use	Test instruments in a limited number of courses, research activities or services.
6. Feedback and refinement	Adapt wording, procedures and responsibilities to the local context.
7. Institutional integration	Connect instruments to policy, training, quality assurance and data governance.

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SUSTAINABILITY AND FUTURE INSTITUTIONAL USE

9.1 Contribution to Responsible Digitalisation

The RE-IMAGINE Ethics-in-Practice Framework promotes responsible digitalisation by providing a practical structure for translating ethical principles into everyday decision-making through the RE-IMAGINE operational principles. It helps institutions avoid two opposing approaches: the uncritical adoption of AI tools and overly restrictive responses that may limit their constructive use. Instead, it promotes informed, transparent and context-sensitive decision-making.

The Framework also supports institutional preparedness. By clarifying risks, responsibilities and documentation practices, it supports the development of more coherent approaches to AI in teaching, learning, research and governance. It encourages institutions to approach AI adoption not only as a technical innovation, but also as a pedagogical, ethical and organisational transformation.

9.2 Contribution to ORRI Operationalisation

The Framework contributes to the operationalisation of the Open and Responsible Research and Innovation (ORRI) initiative by translating its broader approach to responsible innovation into stakeholder practices, decision-making processes, and practical instruments. Within the RE-IMAGINE project, this process is structured around four RE-IMAGINE operational principles: openness, responsibility, reflexivity and inclusiveness. These principles connect responsible innovation with context-sensitive reflection and action. ORRI provides the Framework with a conceptual and methodological foundation, informing its development from stakeholder engagement and co-creation through to decision-making and practical implementation.

This is particularly relevant in higher education, where responsible innovation encompasses a variety of practices, stakeholder roles and decision-making contexts. The Framework shows how an ORRI-informed approach can support the design of curricula and teaching materials, assessment and student learning, research integrity, institutional governance, quality assurance, and broader digital transformation processes.

9.3 Sustainability

A key condition for sustainability is integration into institutional routines. A framework that remains only a project document will have limited long-term impact. Therefore, the RE-IMAGINE Framework should be embedded in staff training, course and assessment design, research support, student guidance, quality assurance, ethics review, data protection procedures, and AI governance. The specific form of integration should reflect the needs, capacities and existing governance structures of the institution in question.

One possible next step at BMU is to integrate the Framework into the quality assurance and traceability layer of the developing AI-supported teaching and learning subsystem. This would support the review of AI-assisted curriculum and course design, as well as the development of teaching materials, the preparation of assessments and the validation of content. This pathway should be viewed as an example of institutional implementation, not as a fixed model for all universities. A further pathway for sustainability is the use of the Framework and Toolbox as a conceptual and operational basis for developing or revising institutional AI policies. While the

Framework is not itself a policy template, its decision-making logic, responsibility structures and stakeholder-oriented instruments can inform institution-specific rules, procedures, responsibilities and review mechanisms for responsible AI use.

The RE-IMAGINE Toolbox supports sustainability by providing adaptable, reusable instruments. Institutions can choose the instruments that best match their needs, capacities and governance structures. This selective use is important for avoiding an unnecessary administrative burden and ensuring the Framework remains practical.

However, sustainability also requires periodic revision. AI tools, institutional needs and regulatory expectations will continue to evolve. The Framework should therefore be treated as a living structure that can be reviewed, updated and expanded. While the ORRI Translation Map and the Ethics-in-Practice Decision-Making Cycle provide a stable foundation, the Toolbox instruments can be adapted as practices evolve.

9.4 Future Development

Future development of the Framework may include:

- Continued validation with educators, students, researchers and institutional stakeholders.
- External testing with non-partner higher education institutions.
- Adaptation of instruments to specific disciplines and institutional units.
- Development of concise training materials for different stakeholder groups.
- Use of the Framework and Toolbox to support the development, revision and periodic review of institutional AI policies and related quality assurance processes.
- Periodic review of the Framework in response to emerging AI practices and regulatory changes.
- Collection of examples and illustrative scenarios showing how the Framework supports decision-making in practice.

The long-term value of the Framework lies in its ability to facilitate institutional learning. Responsible AI use is an ongoing process of reflection, decision-making, documentation and review, not a final state. The RE-IMAGINE Framework provides a structured foundation for this process.

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Annex 1. ORRI Translation Map

The ORRI Translation Map summarises the operational logic of the Framework. It links each RE-IMAGINE operational principle to ethical objectives, stakeholder practices and indicators. It is intended as an analytical tool, not an exhaustive list of all possible practices. In this context, indicators are understood as observable signs or forms of evidence showing whether a RE-IMAGINE operational principle has been translated into practice. They are not fixed performance metrics, but rather indicative markers that support reflection, documentation, review and institutional learning. Representative instruments derived from this mapping are provided in the separate RE-IMAGINE Ethics-in-Practice Toolbox

Table A1. ORRI Translation Map

RE-IMAGINE operational principle	Ethical Objective	Educator Practices	Student Practices	Researcher Practices	Institutional Practices	Indicators
Openness	Promote transparency, disclosure and clear communication about AI use.	Explain AI use in teaching materials, assignments and assessment. Provide course-level disclosure rules.	Acknowledge AI use in learning activities and explain how AI supported the work.	Report AI use in research design, data processing, writing, translation or editing where relevant.	Provide institutional transparency rules, public guidance and communication on AI-supported systems.	AI use statements; course guidance; institutional transparency policy; documented disclosure.
Responsibility	Ensure accountable, safe and ethically justified AI use.	Retain pedagogical judgement, verify AI-supported materials and define acceptable use.	Use AI according to rules, verify information and remain responsible for submitted work.	Protect data, verify outputs and retain responsibility for analysis and conclusions.	Define governance roles, oversight bodies, data protection processes and adoption decisions.	Risk assessment records; data protection checks; human review; governance decisions.
Reflexivity	Support critical evaluation of AI assumptions, limitations and effects.	Review how AI affects learning outcomes, assessment design and educator judgement.	Critically evaluate AI outputs, detect errors and reflect on the learning process.	Assess methodological implications, limitations, bias and reproducibility concerns.	Monitor AI practices, collect feedback and review incidents or unintended consequences.	Reflective notes; verification records; policy revisions; monitoring reports.
Inclusiveness	Ensure fair, accessible and inclusive AI-supported practices.	Adapt materials to diverse learning needs and avoid stereotypical or exclusionary content.	Use AI in ways that support access, learning needs and diverse perspectives.	Consider representation, fairness and accessibility in AI-supported research.	Support equitable access, non-AI alternatives and inclusive institutional services.	Accessible formats; alternatives; accessibility and fairness checks; DEI policies or guidance for digital tools; fair access procedures.

Annex 2. Stakeholder Implementation Guidance

This annex expands the practical use of the Framework for different stakeholder groups. It does not replace the Toolbox instruments. Instead, it explains how each stakeholder group can interpret the Ethics-in-Practice Decision-Making Cycle in its own professional context.

Annex 2.1 Educators

Educators are central actors in the responsible use of AI because they define learning outcomes, design activities, communicate rules and assess student work. The Framework supports educators by helping them move from individual experimentation with AI tools towards transparent, pedagogically justified and documented practice.

Practice Area	Typical AI Use	Ethics-in-Practice Focus
Teaching material development	AI may support examples, explanations, quizzes or adapted materials.	Check accuracy, level, inclusiveness, sources and alignment with learning outcomes.
Assignment design	AI changes what students can produce and how they work.	Define permitted, limited and prohibited forms of AI use and communicate them clearly.
Assessment	AI may affect authorship, originality and demonstration of learning.	Focus on process, explanation, oral defence, reflection and transparent criteria.
Feedback	AI can support formative feedback but should not replace educator judgement.	Review AI-supported feedback and clearly communicate whether it is generated directly by AI or has been reviewed and approved by the educator.
Student guidance	Students need to know how to use AI responsibly, not only whether it is allowed.	Provide examples of acceptable use, declaration requirements and critical evaluation expectations.

Practical guidance:

- Use course-level AI disclosure statements before assignments begin.
- Explain why certain uses are allowed or restricted in relation to learning outcomes.

- Require students to document relevant AI use where it affects the submitted work.
- Use the AI Output Evaluation Checklist as a learning tool, not only as a control mechanism.
- Review AI-generated teaching materials before use and adapt them to student needs.

Annex 2.2 Students

Students should not be viewed solely through the lens of academic integrity risks associated with AI use. They are also learners who need support in developing critical, transparent and responsible AI practices. The Framework treats students as active participants in responsible digitalisation.

Practice Area	Typical AI Use	Ethics-in-Practice Focus
Learning support	AI can explain, summarise, translate or provide examples.	Students should verify outputs and ensure they understand the content.
Writing support	AI may help with drafting, language improvement or structure.	Students must retain responsibility for their work and disclose support according to course rules.
Source use	AI may generate false or weak references.	Students should verify citations, data, quotations and claims independently.
Critical evaluation	AI outputs may be biased, incomplete or misleading.	Students should compare perspectives and identify limitations.
Final submission	AI-assisted work must still reflect student learning.	Students should be able to explain their work and their own contribution.

Practical guidance:

- Ask students to explain AI-supported content in their own words.
- Use AI use declaration templates to promote transparency about how AI contributed to student work. Distinguish between permitted AI assistance and AI use that replaces the student's own work.
- Make verification and critical evaluation part of the assessment criteria.
- Support students who have unequal access to paid or advanced AI tools.

Annex 2.3 Researchers

Researchers may use AI in literature review, coding, translation, editing, data processing and writing. The Framework supports responsible use by focusing on transparency, integrity, verification and data protection.

Practice Area	Typical AI Use	Ethics-in-Practice Focus
Literature review	AI may help identify topics or summarise sources.	Verify all sources independently and check AI-generated references for accuracy and authenticity.
Data processing	AI may support coding or analysis.	Check confidentiality, consent, data minimisation and methodological validity.
Writing and editing	AI may improve clarity or translate text.	Disclose use where required and retain responsibility for final content.
Interpretation	AI may suggest patterns or explanations.	Avoid outsourcing scholarly judgement and critically assess assumptions.
Publication	Journals and publishers may require AI use statements.	Align disclosure with institutional and publication requirements.

Practical guidance:

- Do not enter personal, sensitive or confidential research data into unapproved AI tools.
- Record which tool was used, for what purpose and at which stage.
- Verify AI-supported references, claims and interpretations.
- Agree with co-authors on how AI use will be documented and disclosed before submission.
- Use the Researcher AI Use and Data Protection Checklist before publishing or submitting outputs.

Annex 2.4 Institutions

Institutions play a key role in creating the conditions for responsible AI use. The Framework supports institutional actors in moving from ad hoc decisions towards governance, oversight, training and continuous review.

Practice Area	Typical AI Use	Ethics-in-Practice Focus
Policy development	Institutions need rules that are clear but adaptable.	Create guidance that distinguishes AI use in teaching, student learning, research and administration.
Procurement and adoption	AI tools may involve data protection, bias, vendor dependency and accessibility risks.	Assess tools before adoption and define approval procedures.
Training	Responsible AI requires staff and student capacity building.	Offer role-specific training linked to practical instruments.
Data governance	AI use may involve personal or sensitive data.	Align AI practices with data protection rules and internal procedures.
Monitoring	AI systems may produce unintended effects after introduction.	Collect feedback, document incidents and revise practices.

Practical guidance:

- Assign institutional responsibility for AI governance and oversight.
- Make rules and expectations visible to students and staff.
- Ensure non-AI alternatives where appropriate.
- Include AI-related risks in quality assurance and ethics review processes.
- Review institutional AI practices periodically.

Annex 3. Illustrative Scenarios for Framework Application

This annex provides illustrative scenarios showing how the RE-IMAGINE Ethics-in-Practice Framework can be applied in concrete AI-related situations. The scenarios are not intended as fixed procedures. Rather, they demonstrate how the RE-IMAGINE operational principles, the Ethics-in-Practice Decision-Making Cycle and relevant Toolbox instruments can be connected in practice.

Scenario 1: AI-assisted teaching material development

- **Situation:** An educator uses AI to support the development or adaptation of teaching materials.
- **Relevant RE-IMAGINE operational principles:** Openness, responsibility, reflexivity and inclusiveness.
- **Decision-Making Cycle:** Define the teaching context and purpose of AI use; identify pedagogical, ethical and accessibility risks; clarify educator responsibility; review and adapt AI-generated materials; document AI use where relevant; revise materials based on feedback.
- **Relevant Toolbox instruments:** Teaching Materials Design and Inclusive Learning Guide; AI Use Disclosure Template.
- **Expected output:** Reviewed teaching material that is pedagogically appropriate, accessible and transparent regarding AI use.

Scenario 2: AI-assisted literature review and research support

- **Situation:** A researcher uses an AI-supported research discovery tool to identify relevant academic sources during the literature review process.
- **Relevant RE-IMAGINE operational principles:** Openness, responsibility and reflexivity.
- **Decision-Making Cycle:** Define the research purpose and the role of the AI tool; evaluate the reliability and relevance of retrieved sources; verify references through original publications; consider data protection and transparency requirements; document the use of AI support; review the final research output.
- **Relevant Toolbox instruments:** Researcher AI Use and Data Protection Checklist; AI Use Statement Template.
- **Expected output:** A documented and transparent AI-supported literature review process with verified sources and clear researcher responsibility.

Scenario 3: AI-supported qualitative data analysis

- **Situation:** A research team wants to use AI to support the coding of interview transcripts or other qualitative research material.
- **Relevant RE-IMAGINE operational principles:** Openness, responsibility and reflexivity.

- **Decision-Making Cycle:** Define the research context and type of data; assess whether the transcripts contain personal, sensitive or confidential data; check whether participants have consented to this form of processing; verify whether the AI tool is appropriate and approved for the intended use; establish how coding reliability will be checked; document the role of AI in the methodology; review the final analysis critically.
- **Relevant Toolbox instruments:** Researcher AI Use and Data Protection Checklist; AI Use Statement Template; Digital and AI Tool Evaluation Sheet.
- **Expected output:** A documented decision on whether AI-supported qualitative analysis is appropriate, with clear safeguards for data protection, consent, methodological verification and transparent reporting.

Scenario 4: Institutional adoption of an AI-supported tool

- **Situation:** A higher education institution considers introducing an AI-supported tool for teaching, learning, student support or administrative processes.
- **Relevant RE-IMAGINE operational principles:** Openness, responsibility, reflexivity and inclusiveness.
- **Decision-Making Cycle:** Define the institutional purpose of the tool; identify affected stakeholder groups; assess pedagogical, ethical, data protection, accessibility and governance risks; clarify responsibility for approval, implementation and monitoring; decide whether the tool should be adopted, adopted with safeguards or not adopted; document the decision and establish review procedures.
- **Relevant Toolbox instruments:** Digital and AI Tool Evaluation Sheet; Institutional AI Governance and Data Protection Checklist; AI Adoption Decision Guide.
- **Expected output:** A documented institutional adoption decision with defined safeguards, responsibilities, communication measures and review procedures.

Scenario 5: Student use of AI in assignment preparation

- **Situation:** A student uses AI to brainstorm ideas, structure an assignment, improve language clarity or check understanding of course content.
- **Relevant RE-IMAGINE operational principles:** Openness, responsibility and reflexivity.
- **Decision-Making Cycle:** Check the course or assignment rules; define the allowed scope of AI use; critically evaluate AI-generated suggestions; verify information against course materials or reliable sources; ensure that the final work reflects the student's own understanding; disclose AI use where required.
- **Relevant Toolbox instruments:** Responsible AI Use Student Guide; AI Output Evaluation Checklist; AI Use Declaration Template.

Expected output: A submitted assignment in which AI use is transparent, AI-supported content is appropriately verified and academic integrity requirements are met.

Annex 4. Partner University Contexts and Empirical Focus Group Insights

Annex 4.1 BMU Institutional Context and Empirical Focus Group Insights

This annex summarises the empirical focus group insights collected at Belgrade Metropolitan University within the RE-IMAGINE project. The purpose of the annex is to show how stakeholder perspectives informed the development of the Ethics-in-Practice Framework, the ORRI Translation Map and the RE-IMAGINE Toolbox.

The focus group structure was designed around the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness. Separate question sets were prepared for students, educators/researchers and institutional management. The questions addressed transparency and understanding of AI-supported tools, the impact of AI on learning and assessment, accessibility and equality, responsibility and institutional support, and the conditions needed for ethical and sustainable AI integration.

The empirical material was analysed thematically and coded in relation to the four RE-IMAGINE operational principles. The focus groups included three stakeholder perspectives: deans and administrative staff, educators and researchers, and students. Across these groups, the findings highlighted the importance of strategic readiness, governance, data protection, participatory development, pedagogical alignment, AI literacy, academic integrity, inclusive access and institutional support.

A4.1.1 Deans and Administration

The first focus group, conducted with deans and administrative staff, identified five main themes related to the prospective integration and governance of digital and AI-supported tools in higher education. These themes reflected institutional planning, ethical foresight, pedagogical considerations and participatory approaches to future AI implementation.

The main insights were:

- **Strategic readiness and technological infrastructure.** Participants emphasised the importance of organisational readiness, planned infrastructure development and alignment with regulatory and innovation objectives. The findings indicate that AI integration requires strategic preparation rather than isolated experimentation.
- **Governance, responsibility and data protection.** Participants pointed to the need for clearly defined roles, procedures and standards for ethical AI implementation, including cooperation between IT, academic staff and legal services.
- **Participatory development and feedback loops.** The findings show the importance of involving educators and students in testing and improving AI-supported systems. Feedback should inform iterative platform development and institutional learning.

- **Pedagogical alignment and critical AI use.** AI-supported tools should be aligned with pedagogical goals and continuously reviewed in relation to teaching quality, academic integrity and staff readiness.
- **Ethical and institutional sustainability.** Participants emphasised that AI should complement, rather than replace, student learning and that regulatory and ethical compliance should be monitored continuously.

These findings informed the institutional instruments in the Toolbox, particularly the Institutional AI Governance and Data Protection Checklist and the AI Adoption Decision Guide. They also highlighted the importance of transparent policies, defined responsibilities, participatory decision-making and continuous evaluation of digital and AI tools for responsible AI integration.

A4.1.2 Educators and Researchers

The second focus group, conducted with educators and researchers, identified practical experiences, pedagogical adaptations, ethical concerns and structural requirements related to digital and AI-supported tools in higher education. The findings reflected the RE-IMAGINE operational principles and indicated that academic staff are already experimenting with AI but require clearer institutional support and guidance.

The main insights were:

- **Current use and experimentation with AI tools.** Participants reported exploratory and diverse use of AI in teaching and research, mainly to improve efficiency and support repetitive tasks. However, AI use remains fragmented and there is a gap between experimentation and systematic implementation.
- **AI literacy and institutional support.** Participants emphasised the need for structured AI literacy development for both staff and students, as well as clearer institutional support and regulatory guidance.
- **Pedagogical adaptation and assessment integrity.** AI use affects task design, assessment methods and academic integrity. Participants highlighted the need to redesign assessment and to combine different methods, including oral assessment and reflective tasks.
- **Ethical use, trust and academic integrity.** Concerns were raised about unreliable AI outputs, fabricated references, disclosure and the need for ethical rules.
- **Inequality, inclusiveness and student diversity.** Participants noted that AI may widen inequalities because digitally skilled students and those with better access may benefit more.

These findings informed the educator and researcher instruments in the Toolbox, including the Teaching Materials Design and Inclusive Learning Guide, the Assessment Guide, the AI Use Disclosure Template, the Researcher AI Use and Data Protection Checklist and the AI Use Statement Template. They also highlighted the need for AI literacy, transparent institutional rules, responsible disclosure and ongoing pedagogical reflection.

A4.1.3 Students

The third focus group included students from different faculties at BMU. It explored their experiences with digital learning systems and AI-supported tools, including access, responsible use, institutional support, critical engagement with AI-generated content and recommendations for improving digital learning environments.

The main insights were:

- **AI use and transparency in digital learning.** Students use AI and digital platforms as learning aids, especially for explanations, information retrieval and structuring their learning. However, they also raised concerns about misinformation, platform usability and differences between disciplines.
- **Access inequality and digital divide.** Students emphasised that access to equipment, digital skills, internet connectivity and paid AI tools can influence academic success. Equal participation depends not only on the existence of digital platforms, but also on students' ability to use them effectively.
- **Critical awareness and reflective AI use.** Students stressed that AI should support learning rather than replace understanding. They identified verification of AI-generated information as essential for responsible use.
- **Institutional support and communication challenges.** Students reported uncertainty about where to seek support for technical or ethical problems related to digital platforms and AI tools. This points to the need for clearer communication channels and more reliable support structures.
- **Student recommendations for responsible AI integration.** Students recommended balanced, discipline-sensitive and non-mandatory AI integration. They emphasised that digital systems should be stable before more advanced AI tools are introduced.

These findings informed the student-oriented instruments in the Toolbox, particularly the Responsible AI Use Student Guide, the AI Output Evaluation Checklist and the AI Use Declaration Template. They highlight the importance of equitable access, AI literacy, critical evaluation skills, reliable institutional support and discipline-sensitive guidance for responsible student use of AI.

A4.1.4 Cross-Cutting BMU Insights

Across the three focus groups, five cross-cutting needs were identified:

- Clearer institutional rules and governance;
- Systematic AI and digital literacy development;
- Discipline-sensitive and pedagogically justified AI integration;
- Critical and reflective use of AI outputs;
- Inclusive access to digital infrastructure, support and learning opportunities.

A central finding is that AI integration should not be treated as a purely technical issue. Responsible AI integration should therefore connect transparency, accountability, reflective pedagogy and equitable access with concrete institutional procedures and teaching practices.

The focus groups also indicated that stakeholders place particular value on operational clarity, institutional support and pedagogically justified AI use. These findings support the central logic of the RE-IMAGINE Ethics-in-Practice Framework: the broader ORRI approach needs to be translated into concrete rules, practices and instruments through the RE-IMAGINE operational principles.

A4.1.5 Implications for the Framework and Toolbox

The empirical insights shaped the Framework and Toolbox in five main ways:

- **Openness:** the need for clear rules, disclosure practices and accessible communication informed the ORRI Translation Map, the AI Use Disclosure Template and the AI Use Declaration Template.

- **Responsibility:** the need for defined roles, institutional support and data protection informed the risk and responsibility mapping, the institutional checklist and the researcher checklist.
- **Reflexivity:** the need to verify AI outputs, redesign assessment and review unintended consequences informed the Decision-Making Cycle, the Assessment Guide and the AI Output Evaluation Checklist.
- **Inclusiveness:** the need to address access inequalities, digital skills and discipline-sensitive use informed the Teaching Materials Design and Inclusive Learning Guide, student guidance and institutional adoption steps. **Transferability:** the diversity of stakeholder perspectives highlighted the need for the Framework to remain adaptable rather than prescriptive. It should support different institutional capacities while preserving a consistent ORRI-informed decision-making logic operationalised through the RE-IMAGINE operational principles. In this way, the BMU focus group findings provided empirical grounding for the RE-IMAGINE Ethics-in-Practice Framework and helped ensure that the Toolbox instruments respond to concrete stakeholder needs rather than remaining at the level of abstract ethical principles.

A4.2 UA: Empirical Focus Group Insights

This section summarises the empirical insights from the focus groups conducted at the UA. The same focus group structure and guiding questions were used as in the BMU context, enabling the findings to be compared across the two partner institutions. The UA focus groups included three stakeholder perspectives: management and administration; educators and researchers; and students.

Rather than repeating the full analytical structure presented in A4.1, this section aims to identify the main insights that support, extend or contextualise the RE-IMAGINE Ethics-in-Practice Framework within a different institutional environment. The discussions addressed digital and AI tools in institutional management, teaching, research, academic responsibility, and student learning. These discussions were organised around the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness.

A4.2.1 Management and Administration

The focus group involving management and administrative representatives emphasised the importance of taking a more structured institutional approach to digital and AI tools. Participants recognised that AI should be viewed as a means of supporting human work rather than replacing human creativity, responsibility or judgement. The discussion also emphasised the importance of stronger institutional coordination, internal rules, transparent disclosure of AI use, data protection safeguards and procedures that support academic integrity.

A key finding was that the responsible integration of AI should combine institutional leadership with stakeholder participation. Participants emphasised the importance of including students, educators, management and administration in shaping digital transformation. They also emphasised the need for harmonisation across organisational units so that AI-related practices are consistent and not fragmented.

From the perspective of the Framework, these findings support the institutional layer of the Ethics-in-Practice approach. They also highlight the need for governance questions, role clarification, monitoring procedures and practical instruments to help institutions decide when and how to introduce AI-supported tools.

A4.2.2 Educators and Researchers

The focus group with educators and researchers revealed that digital and AI tools are already being used for teaching preparation, analysing literature, processing data, searching for legal and academic materials and structuring research ideas. However, participants did not present AI as an autonomous source of knowledge. Instead, they described it as a support instrument whose value hinges on the user's ability to understand its limitations, verify its outputs and exercise professional judgement.

The discussion highlighted several risks, including over-reliance on AI, superficial learning, the weakening of independent thinking, a loss of authenticity and uncertainty regarding academic integrity. Participants emphasised the need for clear institutional guidelines on transparency, citation, ethical use and responsibility. They also suggested that, alongside oral defence and other forms of assessment that confirm genuine understanding, institutions could consider introducing AI use disclosure statements, including in the context of final and master's theses.

These findings reinforce the importance of instruments related to AI disclosure, assessment design, research integrity, verification and data protection for educators and researchers, as set out in the Framework and Toolbox. They also highlight the need to develop AI literacy for both staff and students.

A4.2.3 Students

The student focus group revealed that students are already using institutional digital platforms and general AI tools, such as ChatGPT and Gemini, for their studies. They primarily use these tools to better understand literature, organise their studies, process information more quickly and receive explanations of complex topics. At the same time, however, students recognised that AI should not replace independent learning, critical thinking or personal intellectual effort.

They identified several important needs, including clearer rules on acceptable and unacceptable AI use, training in the ethical and transparent use of AI, a clearer understanding of plagiarism in the context of AI and more reliable institutional guidance. They also raised concerns about inclusivity, particularly with regard to paid AI tools, differences in equipment and unequal levels of digital literacy.

From the Framework's perspective, the student findings highlight the need for practical guidance to help students distinguish between responsible AI-supported learning and the inappropriate substitution of their own work. The findings also support the inclusion of student-oriented instruments, such as the Responsible AI Use Student Guide, the AI Output Evaluation Checklist and the AI Use Declaration Template.

A4.2.4 Cross-Cutting UA Insights

Several cross-cutting insights were identified across all three UA focus groups:

- AI is seen as a useful support tool, but not as a replacement for human judgement, teaching responsibilities or independent learning;

- Stakeholders highlighted the value of further developing and harmonising institutional guidance, particularly regarding the acceptable use of AI, transparency, citation, data protection and academic integrity;

- Continued capacity-building and training would be beneficial for both staff and students, particularly in relation to AI literacy, verification of AI-generated outputs and responsible prompting;

- AI integration should be gradual, tested and aligned with pedagogical and institutional goals;

- Unequal access to tools, differences in digital literacy and reliance on paid AI systems may deepen existing inequalities;

- Assessment should include methods that demonstrate genuine understanding, such as oral defence, discussion, practical tasks and reflective explanations of AI use;

- Institutional guidance should be harmonised across organisational units while allowing adaptation to specific disciplinary and organisational contexts.

A4.2.5 Implications for the Framework and Toolbox

The findings of the UA confirm that the RE-IMAGINE Ethics-in-Practice Framework should remain flexible and stakeholder-oriented, and usable across institutions characterised by different organisational models, levels of digital integration and pathways of AI adoption. The findings demonstrate that the responsible use of AI cannot be reduced to technical adoption alone. It requires ethical principles and practical instruments that help stakeholders make transparent, accountable, reflective and inclusive decisions in specific situations.

As the same focus group questions were used across different contexts, the UA findings also demonstrate the Framework's transferability. They demonstrate that the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness can be applied in various institutional settings, although the specific implementation pathways may differ.

For the Toolbox, the UA insights particularly highlight the need for:

- AI use disclosure and declaration templates;

- Student guidance on responsible AI use;

- Assessment instruments that preserve academic integrity;

- Researcher instruments for verification, disclosure and data protection;

- Institutional checklists for governance, oversight and AI adoption;

- Training materials that can be adapted to local capacity and digital maturity.

Alongside the BMU findings, the UA focus groups provide further support for the central logic of the RE-IMAGINE approach: responsible AI use in higher education requires practical instruments that translate the RE-IMAGINE operational principles into transparent, accountable, reflective and inclusive decision-making in specific situations.

Annex 5. Training and Validation Protocol for Framework and Toolbox Application

This annex supplements Chapter 7, 'Validation, Training and End-User Feedback', by outlining the practical structure employed for training and validation activities. This activity focused on applying the RE-IMAGINE Ethics-in-Practice Framework using the Toolbox instruments.

While Chapter 7 explains the purpose, design and role of training and validation within the Framework, this annex provides a more operational overview of how participants were introduced to the Framework logic and the Toolbox instruments, as well as how the feedback was collected.

A5.1 Purpose of the Training and Validation Activity

The training and validation activity was designed to:

– introduce participants to the Framework logic and its operationalisation through the Toolbox;
– provide practical experience with selected instruments in realistic AI-related situations;
– gather structured feedback on clarity, relevance, usability and adaptation needs to support final refinement.

A5.2 Training and Validation Structure

The training followed the same logic described in Chapter 7: participants were first introduced to the Framework and the structure of the Toolbox logic, then guided through selected instruments, and finally invited to reflect on their clarity, relevance and usability.

Table A5.1. Training and Validation Structure for Framework and Toolbox Application

Phase	Facilitator Action	Participant Role	Evidence Collected
Orientation	Introduce responsible AI use, the Ethics-in-Practice approach and the RE-IMAGINE operational principles.	Listen and ask questions for clarification.	Initial understanding, questions and areas requiring clarification.
Instrument demonstration	Present who uses the instrument, when, which risk it addresses and what output it produces.	Assess whether the instrument corresponds to their professional or institutional practice.	Relevance to stakeholder practice.
Scenario discussion	Present a realistic AI use situation.	Identify risks, responsible actors and necessary safeguards.	Risk perception and role clarity.
Applied activity	Ask participants to fill in or review selected parts of an instrument.	Complete or assess the instrument.	Usability and clarity feedback.
Reflection	Ask what should be kept, simplified, added or adapted.	Provide short feedback.	Refinement suggestions.
Evaluation	Collect final comments, post-training knowledge-check responses and/or structured feedback.	Rate usefulness and applicability.	Validation input for final revision.

A5.3 Knowledge Check as a Supporting Element

A short knowledge check was carried out at the start and end of the training and validation activity. This was used to assess participants' understanding of responsible AI use before and after the activity.

The knowledge check focused on topics directly connected to the Framework logic and Toolbox instruments, including:

- Human oversight and responsibility for AI-supported educational content;

- Expert review, adaptation and validation of AI-generated materials;

- Ethical risks related to personalised learning and algorithmic recommendations;

- Alignment of AI-supported materials with learning outcomes and competence levels;

- The role of quality assurance in reviewing AI-generated educational resources;

- Transparency regarding AI use in teaching materials;

- Assessment of benefits, risks, data protection, responsibilities and institutional alignment before implementing AI-supported tools;

- The relationship between the broader ORRI approach, the RE-IMAGINE operational principles and responsible AI-supported institutional practices.

The knowledge check was not intended to be a formal evaluation of institutional performance. Instead, it encouraged reflection on the key concepts covered during the training and helped to identify areas that needed further clarification.

Given the limited number of participants (28), the results of the knowledge check should be interpreted as indicative feedback on the training process and the clarity of the Framework and Toolbox, rather than as evidence that can be statistically generalised.

Table A5.2. Thematic Focus of the Knowledge Check

Thematic Area	Knowledge Focus
Human oversight and responsibility	Participants identify that human oversight and responsibility for final content remain essential regardless of the level of automation.
Review and validation	Participants recognise the need for expert review, adaptation and validation of AI-generated teaching materials.
Personalised learning and fairness	Participants identify that algorithmic recommendations may affect equal access to learning content and opportunities.
Learning outcomes and competence alignment	Participants understand that AI should support content development in line with predefined learning outcomes and competence levels.
Transparency	Participants understand that students should be informed when AI was used and what role it plays in the development of teaching materials.
Quality assurance	Participants recognise the role of quality assurance in reviewing the quality and alignment of AI-generated educational materials.
Institutional adoption	Participants identify that benefits, risks, data protection, responsibilities and institutional alignment should be assessed before implementation.
RE-IMAGINE operational principles	Participants recognise the link between the broader ORRI approach, the RE-IMAGINE operational principles of openness, responsibility, reflexivity and inclusiveness, and responsible AI-supported institutional practice.

A5.4 Examples of Knowledge Check Items

The knowledge check included multiple-choice questions related to the responsible use of AI in higher education. The following examples illustrate the type of knowledge assessed:

- **Human oversight and responsibility**: Participants were asked to identify what should remain central, regardless of the level of automation. The expected focus was on human oversight and responsibility for the final content.

- **Review and validation**: Participants were asked to identify the practice most aligned with responsible AI use in the development of teaching materials. The expected focus was on expert review and the adaptation and validation of AI-generated content.

- **Transparency**: Participants were asked what aspects of the use of AI in the preparation of teaching materials should be transparent to students. The expected focus was on making it clear when AI was used and what role it played.

- **Institutional adoption**: Participants were asked what should be assessed before introducing an AI-supported system. The expected focus was on the benefits and risks, data protection, responsibilities and alignment with institutional rules.

- **RE-IMAGINE operational principles:** Participants were asked to identify how openness, responsibility, reflexivity and inclusiveness translate the broader ORRI approach into responsible AI-supported institutional practice.

These examples are included to demonstrate the focus of the knowledge check. The full test is retained as internal training material rather than reproduced in the Framework document.

A5.5 Core Validation Questions for Framework and Toolbox Application

The validation of the Framework and Toolbox was guided by questions focusing on clarity, relevance, practical usefulness, feasibility and adaptation needs.

Table A5.3. Core Validation Questions for Framework and Toolbox Application

	Is the Framework logic understandable?
Role relevance	Are the selected instruments relevant to the intended stakeholder group?
Practical usefulness	Do the instruments help identify risks, responsibilities or necessary actions?
Output	Does the use of the instrument lead to a clear decision, statement, checklist result or documented action?
RE-IMAGINE operational principles in practice	Does the process translate the RE-IMAGINE operational principles of openness, responsibility, reflexivity or inclusiveness into practical action?
Feasibility	Can the Framework logic and selected instruments realistically be used in teaching, learning, research or institutional work?
Adaptation	What should be shortened, clarified, expanded or adapted before wider use?

A5.6 Use of Training and Validation Feedback

Feedback from the training and validation process was used to support the final refinement of the RE-IMAGINE Ethics-in-Practice Framework and Toolbox. Input on the clarity of the Framework logic and the relevance, usability and adaptability of the instruments was gathered through participant responses, scenario-based discussion, applied work with selected instruments and knowledge-check results.

The purpose of this process was not to treat validation as a formal audit or compliance exercise. Instead, it supported practical improvement and institutional learning. In line with the Ethics-in-Practice approach, the training and validation activities helped assess whether the RE-IMAGINE operational principles were effectively translated into practical, usable and stakeholder-oriented instruments for everyday higher education practice.