
ForwardAI
SKILLS
bridge 2 digital transformation

CONTENTS

1. Forward AIe Skills Common Ecosystem

The Forward AIe Skills project is built on a robust, coherent, and participatory methodology, explicitly aligned with the Erasmus+ Programme Guide's quality criteria. Its design ensures consistency between objectives, activities, timelines, and budget, while addressing the integration of Generative Artificial Intelligence (AI) into education and training systems across Europe.

The methodology combines research, co-creation, piloting, and policy development, rooted in evidence-based practices and guided by the principles of inclusivity, innovation, and sustainability. It embraces a lifelong learning perspective, spanning formal and non-formal settings, and includes adult education and vocational education and training (VET) institutions. This approach supports the EU's priorities for digital re-skilling and up-skilling.

The project is structured around six specific objectives, each operationalized through a coherent framework of interrelated activities distributed across dedicated Work Packages (WPs). These include:

- Mapping current uses of Generative AI in education;
- Developing ethical and pedagogical guidelines;
- Designing AI-based methodologies for teaching and learning;
- Creating training modules and certified microcredentials;
- Piloting and validating tools and strategies;
- Producing policy recommendations and ensuring long-term impact.

Each objective is directly linked to targeted activities that build on one another:

- Objective 1 (Research) informs Objective 2 (Guidelines);
- Objective 4 (Training) draws from Objective 5 (Pilots);
- Objective 3 (AI Methodologies) is developed through co-creation (WP3), tested in real-world settings (WP4), and refined through feedback;
- Objective 6 (Policy) is reinforced by a strategic communication and sustainability plan (WP6).

This logical structure ensures:

- A clear progression across all phases—preparation, implementation, evaluation, dissemination;
- Strong links between research and practice, with stakeholder input shaping tools and policies;
- Scalable and transferable outcomes, particularly for adult learning and VET systems.

Four Pillars of the Methodology

Research and Evidence Gathering

Led by WP1, WP2, and WP3, this includes desk research, interviews, surveys, and consultations. It identifies success factors, gaps, and institutional needs to ensure that outputs are relevant and grounded in the realities of lifelong learning and VET.

Co-creation and User-Centred Innovation

Participatory design workshops, hackathons, and collaborations with educators, learners, policy-makers, and EdTech developers (primarily in WP2, WP3, and WP5) ensure that tools are pedagogically sound, flexible, and accessible—particularly for NEETs, low-skilled adults, and career changers.

Pilot Implementation and Validation

Under WP4, tools and strategies are tested in diverse learning environments, including higher education and VET centers. Evaluation mechanisms focus on both pedagogical impact and learner experience, especially among non-traditional and adult learners.

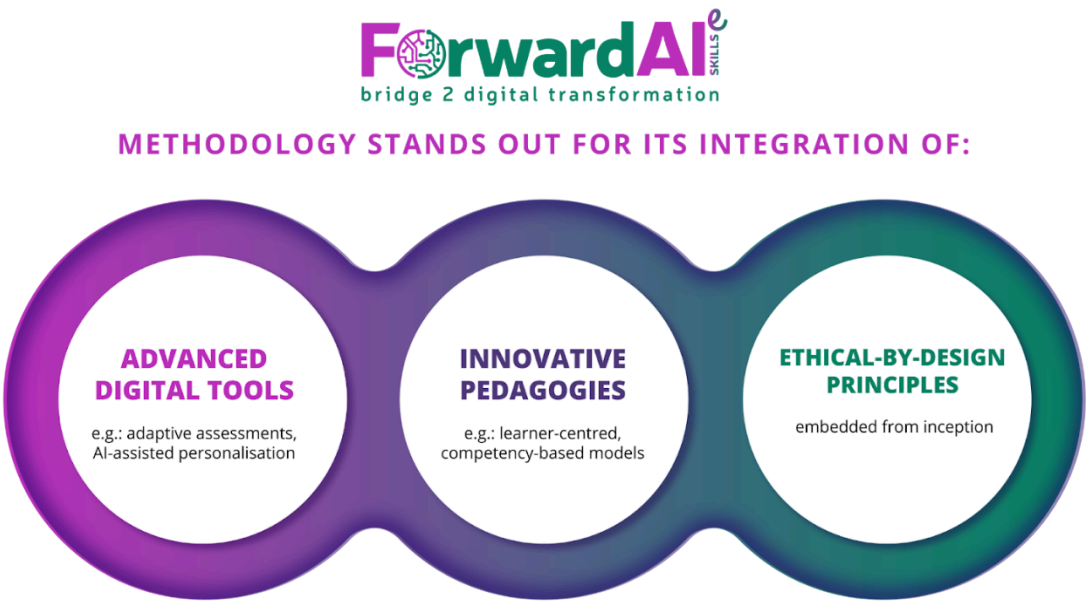
Policy Impact, Dissemination, and Sustainability

WP6 ensures the wide dissemination and uptake of project outcomes through a comprehensive strategy that includes:

- An open-access AI Education Portal;
- Networking events and policy roundtables;
- Evidence-based policy recommendations aligned with EU frameworks such as the AI Act, GDPR, and DigiComp.

WP6 also leads the development of a Sustainability Strategy, ensuring long-term viability. This includes aligning with EU initiatives like the Pact for Skills and Digital Education Action Plan, establishing private sector partnerships, and exploring revenue models from certified microcredentials.

Quality of the Partnership and Cooperation Arrangements



The methodology is built on a well-balanced and complementary consortium, bringing together partners with proven expertise in education, technology, ethics, and policy. The partnership includes:

- **Higher Education Institutions and Research Centres**, leading coordination and academic validation;
- **VET Providers, Universities, and Schools**, ensuring real-world implementation and resource testing;
- **Technology and EdTech Companies**, developing AI-based tools and platforms;
- **Ethics and Privacy Experts**, supporting compliance with EU regulatory frameworks;
- **Public Authorities**, ensuring policy relevance and systemic impact;
- **Civil Society Organizations**, strengthening inclusion and gender equity in digital education.

The consortium's diversity of profiles and broad geographical representation across EU regions enables the project to address varied institutional contexts, supporting scalability and sustainability. Roles and responsibilities are clearly distributed across work packages (WPs) and governed by transparent coordination mechanisms, continuous communication, and shared quality assurance protocols (developed in WP5). The project also promotes mutual learning and knowledge transfer between digitally mature and less mature institutions, contributing to a unified and equitable AI skills ecosystem across Europe.

1.1 Innovation and European Added Value

The **Forward AIe Skills** methodology stands out through its integration of:

- **Advanced Digital Tools** (e.g., adaptive assessments, AI-assisted personalization);
- **Innovative Pedagogies** (e.g., Learner-Centred, competency-based models);
- **Ethical-by-Design Principles**, fully aligned with the AI Act and GDPR.

It moves beyond traditional digital innovation projects by embedding co-creation, regulatory alignment, and systemic change at every stage. The project aligns with major EU strategies such as the *Digital Education Action Plan 2021–2027*, *DigComp 2.2*, HEINNOVATIVE platform and *AI Act*, contributing to Europe's digital transformation, educational equity, and labour market resilience.

Its transnational nature adds European value by enabling the exchange of best practices, the co-development of adaptable solutions, and the creation of a European open-access repository.

Forward AIe Skills is designed around a coherent, high-quality methodology that ensures effective implementation. Its research, co-creation, piloting, and policy dimensions are interconnected, guaranteeing technical rigor and social responsiveness. Through strong partnerships and a participatory approach, it aims to deliver tangible, lasting impacts across Europe's education and training landscape.

1.2 Alignment with Erasmus Guidelines and Past Collaborative Achievements

Forward AIe Skills builds upon a strong foundation of previous EU projects by consortium members, fully aligning with Erasmus principles:

- **Common Values**: Emphasis on ambition, long-term impact, inclusion of disadvantaged individuals, diversity of AIe tools and spaces for learning, sharing, and co-creation.
- **Digital Transformation**: Adapting and updating learning environments to diverse needs (*Annex 1: Long Term Vision*).

1.3 Previous Projects and Contributions

Transnational Dimension:

- *European Alliances ACE2EU* and NEOLAIA;
- *Erasmus+ Project ARTIFIGEN*: AI Chatbot Coaching Toolkit (2024-1-CY01-KA220-HED-000256806);

- *Erasmus+ Project VERFISUM*: Virtual Escape Room for Future Jobs and Migrants;
- *Erasmus+ Project PREDICT*: AI for VET Inclusion (https://predict.ipsantarem.pt);
- *Portuguese-funded Project AI2Learn*: (https://doi.org/10.54499/CPCA-IAC/AF/592080/2023).

Research and Innovation:

- Handbook: *Artificial Intelligence* (Pro Universitaria, 2024) (https://doi.org/10.52744/978-606-26-1943-5).

Ethics Expertise:

- Participation in Marie Curie PhD calls addressing ethical issues.

Platform Engagement:

- Adoption of DigICompEDU and participation in HEInnovate (https://heinnovate.eu/en);
- Collaboration with the *New European Bauhaus* (https://new-european-bauhaus.europa.eu/);
- Engagement through *EURAXESS* (https://euraxess.ec.europa.eu/).

1.4 Impact Areas

- **Societal and Geographical Reach**: Inclusion of disadvantaged groups and geographical balance.
- **Educational and Technological Innovation**: Development of ICT-based educational materials using innovative methods.
- **Policy Influence**: Contribution to EU educational and digital policy transformations.

1.5 Cross-Border Collaboration

- Active participation in *Foreu4ALL* initiatives for best practice sharing.
- International cooperation with the Ibero-American network *METARED* (Women in ICT, Educational Technologies, Cybersecurity, and Digital Transformation).

1.6 Added Value of Forward AIe Skills

ADOPT EU RECOMMENDATIONS:
Design activities aligned with key reports and recommendations such as the *Digital Education Action Plan 2021–2027*, *Union of Skills*, *UNESCO Ethics of Artificial Intelligence*, *DigCompEdu*, *Much More Than a Market*, and *Align, Act and Accelerate*.

ACTION SPHERES:
Foster collaboration between universities and societal needs, and pilot innovative programmes and technologies (aligned with WPs 3 and 4).

WORKFORCE SKILLS:
Promote AIe knowledge dissemination through training and research, boosting innovation via AIeLAB (aligned with WP5).

SPEED UP SHARING:
Expand the impact of results through cooperation across countries, leveraging *FOReu4ALL* initiatives and international networks like *METARED* and *RIAL* (aligned with WP6).

2. Forward AI^{e} Skills Vision

The rapid evolution of Generative Artificial Intelligence (AI) is transforming the educational landscape in Europe, offering new opportunities for personalized learning, pedagogical innovation, and administrative efficiency. However, the integration of Generative AI across EU education systems remains fragmented, with significant gaps in policy, digital literacy, and institutional readiness.

Forward AIe Skills addresses these challenges by supporting the responsible, ethical, and inclusive adoption of Generative AI in education and training. Aligned with the EU's **Digital Education Action Plan (2021–2027)**, the initiative strengthens the digital and pedagogical capabilities of educators, institutions, and lifelong learning providers, while promoting key European values such as democracy, inclusion, and human rights.

The project's main objectives are:

- **Enhancing AI and digital literacy** through the development of learning materials, training modules, and assessment tools aligned with the **DigComp 2.2** framework.
- **Building institutional capacity** by supporting higher education and VET institutions in the ethical, effective integration of AI technologies.
- **Promoting ethical AI use** by embedding compliance with the **AI Act**, **GDPR**, and the **Ethical Guidelines on the Use of AI in Education**.
- **Fostering innovation and inclusion** by encouraging open collaboration, reducing gender gaps in digital education, and ensuring equitable access to AI-driven learning opportunities.

Forward AIe Skills leverages a participatory methodology based on research, co-creation, experimentation, and policy development, engaging a diverse network of stakeholders across multiple EU countries. The project builds on and complements existing EU initiatives such as **DigiEduHack** and **Girls Go Circular**, ensuring alignment with broader European Education Area goals.

The initiative will deliver:

- Microcredential training modules for educators and learners.
- Customizable ethical guidelines for AI use in education.
- Interactive digital resources and AI-integrated platforms.
- A scalable European model for ethical AI adoption in education and training.

Forward AIe Skills thus contributes to the key priorities of the **Erasmus+ Programme** by promoting inclusion, innovation, sustainability, and digital sovereignty. By equipping European citizens with critical AI skills, the project strengthens Europe's competitiveness, democratic resilience, and digital leadership.

2.1 Expected Short, Medium and Long-Term Effects

The Forward AIe Skills project is strategically designed to drive sustainable and meaningful change by preparing Europe's education and training systems for the opportunities and challenges presented by Generative AI. Its impact is structured to evolve over time, from immediate competence-building to long-term institutional transformation and policy influence at national and European levels.

Short-Term Impact
During its implementation phase, Forward AIe Skills will deliver:

- Enhanced competences among educators and trainers through targeted training and tools supporting ethical and pedagogical AI integration.
- Improved AI and digital literacy among learners, fostering critical thinking, adaptability, and employability.
- Pilot-tested resources, including the AIe Competency Framework, self-assessment tools, and curriculum models, implemented in real institutional contexts.
- Early institutional engagement, with partners embedding AI practices into curricula, staff development, and strategic planning.

Medium-Term Outcomes

Within 1–3 years post-project, the initiative aims for:

- Broad adoption of its open-access resources across training centers, universities, and VET providers.
- Curricular reform and innovation via integration of the AIe framework into formal education programmes.
- Increased access to quality AI training for underrepresented groups through inclusive learning pathways.
- Sustained cross-sector collaboration aligned with labour market needs and ethical standards.

Long-Term Vision

Forward AIe Skills seeks to contribute to:

- Systemic integration of Generative AI across education systems, influencing practices, governance, and institutional cultures.
- Evidence-based policy development at national and EU levels, aligned with the AI Act, Digital Education Action Plan, and DigComp 2.2.
- Greater resilience and readiness for digital transformation, empowering institutions and individuals to lead in the AI era.

Key Deliverables and Contributions

The project directly addresses all expected impacts under the Erasmus+ Forward call:

- **Good Practices Mapping:** Comprehensive research on AI applications in education, disseminated through EU networks.
- **Empirical Insights:** Identification of barriers, success factors, and design principles for effective AI integration.
- **Uptake of Ethical Practices:** Development and promotion of evidence-based, inclusive AI methods for Higher Education, VET, and adult learning.
- **Institutional Scaling:** Support for organizational readiness through microcredentials, toolkits, and pilot projects.
- **Policy Influence:** Generation of practice-based recommendations aligned with EU frameworks and regulatory standards.

Forward AIe Skills is firmly anchored in key EU initiatives such as the **Ethical Guidelines on the Use of AI and Data in Education** (2022) **DigComp 2.2** and building on previous EU-funded actions. Its outcomes will contribute not only to immediate improvements in AI readiness but also to long-term structural changes, advancing the EU's vision for ethical, inclusive, and future-proof education.

2.2 Target Groups and Concrete Benefits

The Forward AIe Skills project is designed to address the specific needs of key groups across the education and innovation ecosystem. It adopts a multi-level approach that combines direct training and capacity-building with institutional and systemic change. By tailoring activities and outputs to each group, the project ensures immediate benefits and sustainable long-term impact.

Educators and Trainers (VET and HEI)

Teachers, trainers, and academic staff will:

- Acquire practical competences for integrating Generative AI tools into teaching and assessment practices;
- Access a structured training programme featuring self-assessment tools, modular learning units, and real-world case studies;
- Gain professional recognition through digital micro-credentials and engagement in communities of practice.

This will enable educators to transition from experimental use of AI to confident, strategic, and responsible adoption, enhancing teaching quality and relevance to labour market needs.

Learners and Young Professionals

Students and early-career professionals, including underrepresented groups such as women in STEM and learners from rural areas, will benefit from:

- Inclusive, hands-on learning experiences reflecting real-world AI tools and challenges;
- Strengthened AI and digital competences, boosting employability and critical understanding of AI's societal impact.

By equipping learners with essential skills, the project supports digital inclusion and prepares them for active participation in an AI-driven economy.

Educational Institutions (VET Providers and HEIs)

Schools, universities, and training centers will:

- Integrate practical resources, including the AIe Competency Framework, curriculum guides, and policy templates;
- Strengthen digital innovation strategies and capacity-building efforts;
- Enhance alignment with EU initiatives such as HEInnovate and the Digital Education Hub.

These measures will embed AI-enhanced practices into teaching, governance, and quality assurance systems, supporting sustainable institutional transformation.

Industry and Labour Market Actors

Companies, sectoral organizations, and employers will:

- Access a pipeline of AI-skilled graduates;
- Collaborate on curriculum innovation and pilot projects;
- Adopt flexible training models for workforce upskilling and reskilling.

This fosters closer alignment between education outputs and labour market demands, helping to bridge the digital skills gap.

Policy Makers and Public Authorities

At regional, national, and European levels, policymakers and public authorities will:

- Receive evidence-based tools and recommendations for responsible GenAI integration;
- Access tested models and impact data to guide inclusive education and skills strategies;
- Contribute to broader frameworks such as the AI Act, Digital Education Action Plan, and European Skills Agenda.

Through these outcomes, the project enhances policy coherence and strengthens the link between education, innovation, and social inclusion.

2.3 Target audiences and key messages

TARGET AUDIENCES AND KEY MESSAGES

TARGET GROUP	KEY MESSAGES	ENGAGEMENT METHODS
Educators & Trainers	How to integrate AI into teaching; Access to training modules & AI toolkits	Workshops, webinars, Train-the-Trainers sessions, online repository
Learners & Young Professionals	AI career pathways; igital skills development	AIe learning modules, career fairs, gamified e-learning experiences
Industry & Enterprises	Industry & Enterprises AI applications for workforce upskilling; Industry-driven training programs	Industry roundtables, collaboration forums, white papers
Policymakers & Government Bodies	AI skills for the future of work; Policy recommendations for digital transformation	IPolicy briefings, stakeholder roundtables, reports
General Public & Civil Society	Raising awareness of AI in education & jobs	Social media, public events, online campaigns

Impact

The Forward AIe Skills project is strategically positioned to drive system-level change in digital education. Building on the strategic experience and partnerships of its consortium, it draws from years of active engagement in diverse networks, initiatives, policy platforms, and European alliances. By combining innovative practice, strong stakeholder involvement, and alignment with EU priorities, the project acts both as a product of this ecosystem and as a catalyst for transformation — reinforcing the resilience and adaptability of Europe's education and training systems.

3. Contribution to European Priorities and Frameworks

The project responds directly to key EU agendas, including:

- **Digital Education Action Plan 2021–2027**, by advancing AI literacy and digital pedagogical innovation;
- **AI Act** and **Ethical Guidelines on AI in Education**, through the development of practical, ethical, and inclusive tools;
- **DigComp 2.2**, by fostering digital competence among educators and learners;

- **European Skills Agenda**, by creating reskilling and upskilling pathways for GenAI.

These alignments ensure the project's outputs reinforce national and EU-wide efforts to promote inclusive, future-proof education systems.

4. Institutional Transformation and Policy Influence

Forward AIe Skills creates conditions for lasting institutional change by:

- Embedding GenAI practices into curricula, staff development, and quality assurance systems;
- Delivering tested tools and models to guide policy decisions and public investment;
- Actively contributing to mutual learning platforms such as **HEInnovate**, **EURAXESS**, and the **New European Bauhaus (NEB)**.

The project's impact is amplified through its partners' strategic positions. For instance:

- **Instituto Politécnico de Santarém** leads the **ACE2-EU European University Alliance** and participates actively in NEB, HEInnovate, and EURAXESS
- **UFV University** member ACE2EU **Erasmus+ University Alliance**, expanding transnational reach and influence.
- **UJA University** member of NEOLAIA **Erasmus+ University Alliance**, expert in ICT.

These affiliations enhance visibility, relevance, and transferability — but the true driver of impact remains the project's ability to generate evidence, engage stakeholders, and deliver scalable solutions.

5. Cross-Sector and Transnational Collaboration

Recognizing that system-level change demands cross-sector coordination, the project:

- Bridges education and industry to align learning with emerging skills needs;
- Engages EdTech providers, public authorities, and civil society to co-create inclusive solutions;
- Tests its approaches across national contexts, fostering a coherent European model for GenAI adoption.

Participation in **FOREU4ALL** — connecting all 65+ European University Alliances — strengthens its reach and policy dialogue.

6. Evidence-Based Impact for System-Level Change

The project will generate concrete evidence to drive transformation at scale:

- Comprehensive mapping of GenAI practices in education;
- Evaluation of pilot implementations across institutions;
- Policy briefs and guidance to inform reform and investment.

This evidence will feed into both policy and practice, strengthening education systems' capacity to adapt to technological change.

7. Monitoring and Evaluation

A robust Monitoring and Evaluation (M&E) strategy underpins Forward AIe Skills, ensuring continuous learning, alignment, and improvement.

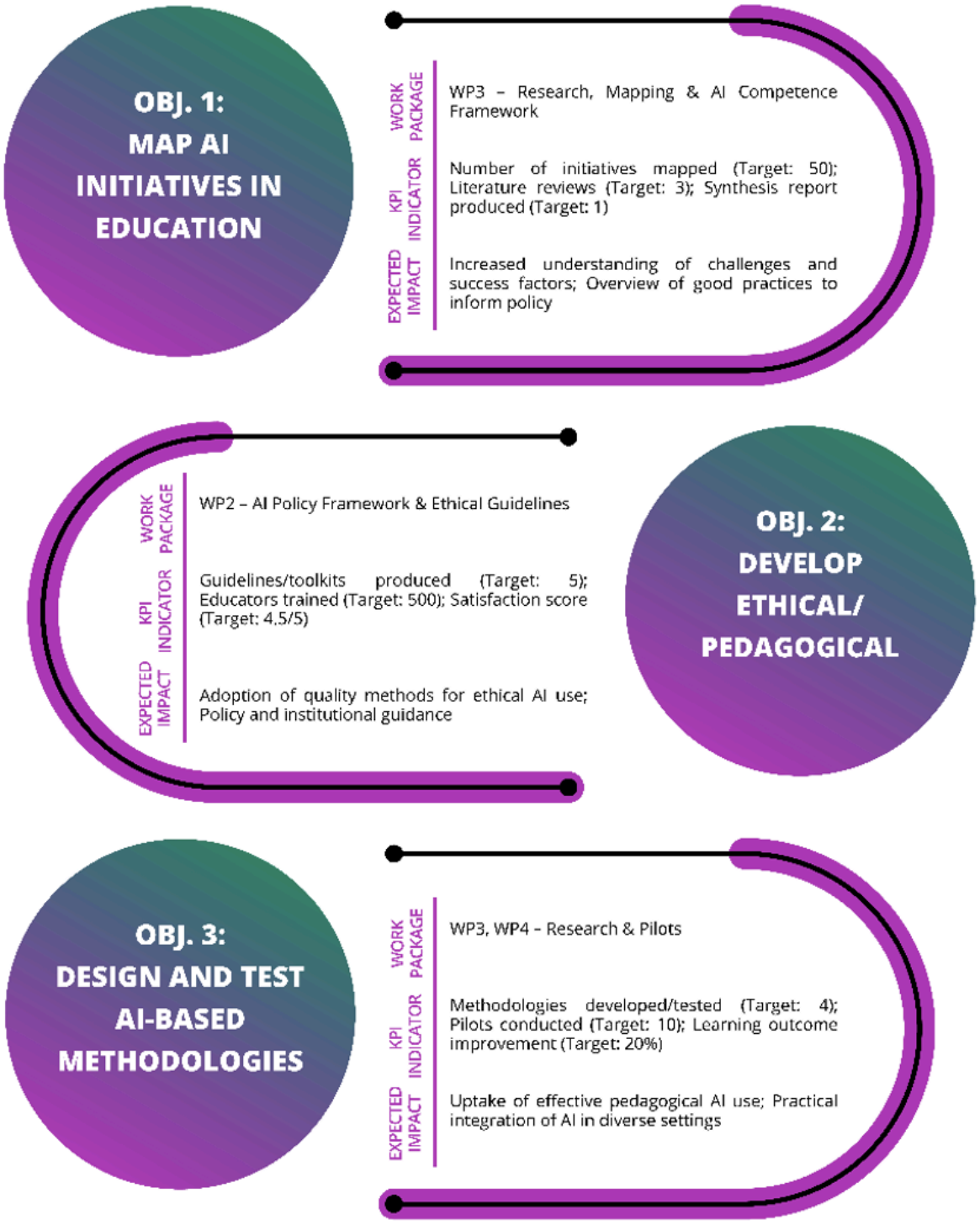
7.1 Evaluation Framework and Objectives

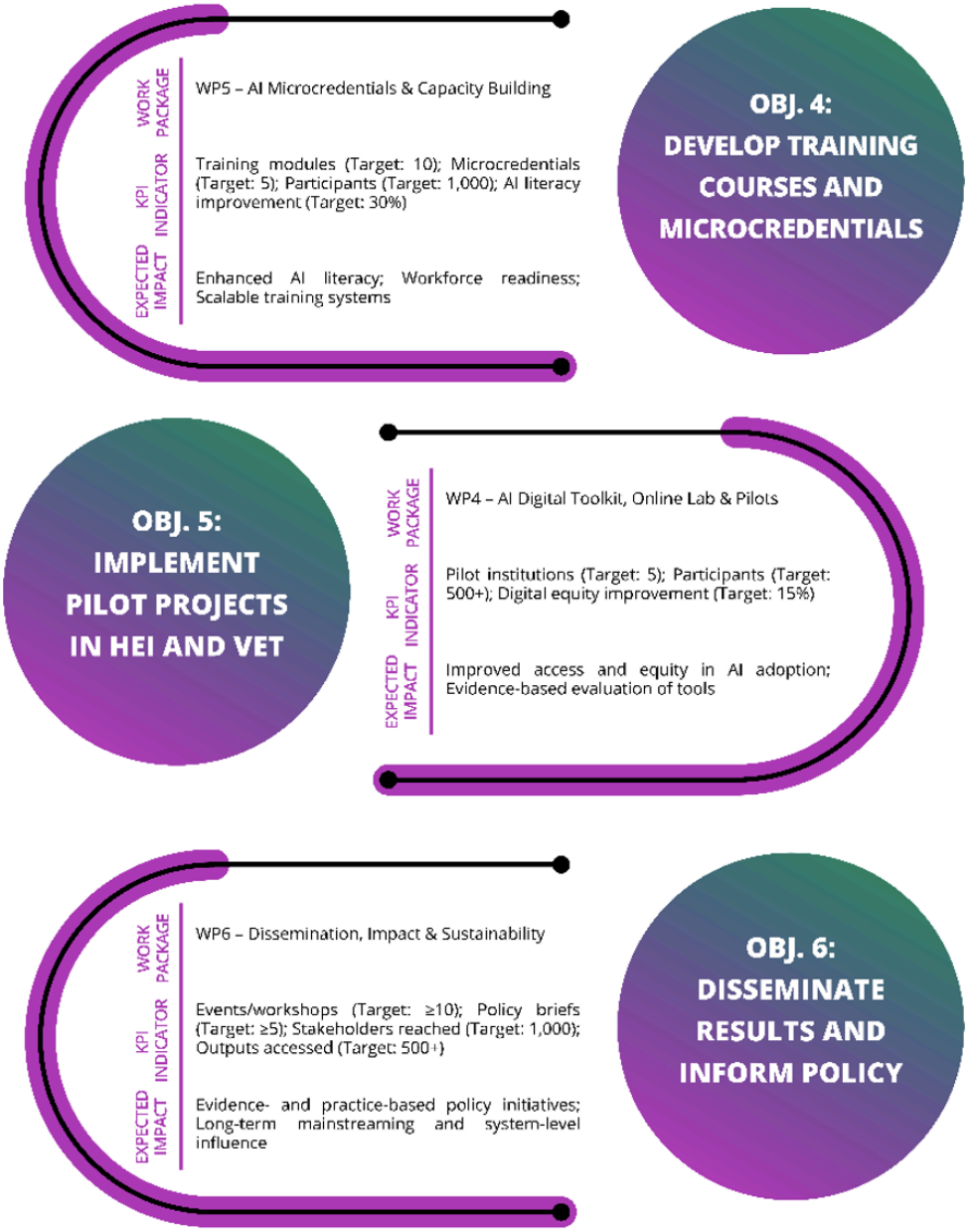
The project adopts a data-driven, participatory evaluation model to:

- Track objectives and deliverables;
- Assess the quality, relevance, and effectiveness of activities;
- Measure both short-term outcomes and systemic changes;
- Generate evidence for scalability and policy adoption.

This framework combines quantitative indicators, qualitative insights, and stakeholder feedback for a comprehensive impact overview.

KPIs Alignment Summary





7.2 Key Performance Indicators (KPIs)

A clear set of measurable KPIs has been defined, reflecting expected effects across all time horizons.

Indicators will be tracked through both quantitative and qualitative methods, disaggregated by criteria such as country, gender, institution type, and stakeholder group.

7.3 Methods of Data Collection and Analysis

Data will be collected and analyzed using:

- Surveys and questionnaires for direct feedback;
- Pre/post assessments to track skill development;
- Focus groups and interviews for deeper insights;
- Platform analytics to monitor engagement;
- Case studies to document implementation processes and success factors.

Regular review cycles will support iterative improvement.

7.4 Internal and External Evaluation Roles

To ensure accountability:

- An internal quality team will oversee continuous monitoring;
- An external evaluator will conduct mid-term and final assessments, providing independent analysis.

This dual system promotes both ownership and transparency.

7.5 Feedback Loops and Learning

Evaluation will serve as an active learning mechanism:

- Stakeholder feedback will refine tools and activities;
- Monitoring outcomes will guide dissemination and policy engagement;
- The evaluation framework will remain active post-project through follow-up with participating institutions.

8. Exploitation and Sustainability

The Forward AIe Skills project is designed to deliver high-impact, transferable, and scalable outputs that will be actively used beyond the project's lifespan.

8.1. Strategic Integration of Results

All core deliverables — including the AIe Competency Framework, training modules, guidelines, and self-assessment tools — are designed to be:

- Transferable across education levels and institution types;
- Modular and scalable;

- Open-access to maximize reach.

They will support curriculum reform, teacher training, and institutional innovation aligned with European and national digital education strategies.

8.2. Pathways for Broader Uptake

The project foresees multiple adoption routes:

- Uptake by external HEIs, VET providers, and training centers via public repositories and events;
- Integration into institutional strategies and quality assurance systems;
- Alignment with tools such as HEInnovate, DigComp, and Ethical Guidelines on AI in Education;
- Engagement with EU-level platforms (e.g., FOREU4ALL, EURAXESS, Digital Education Hub).

8.3. From Co-Creation to Ownership

The project's exploitation strategy is grounded in co-creation with end users, promoting early buy-in and smooth institutional embedding.

Link to Communication and Sustainability Strategies

The exploitation vision is supported by:

- A **Communication and Dissemination Plan** (Section 3.2) ensuring visibility and stakeholder engagement;
- A **Sustainability Strategy** (Section 3.3) detailing operational, institutional, and financial mechanisms for continuity.

Together, these form a coherent pathway to maximize long-term impact.

9. Wider Impact and Ambition

Beyond measurable results, Forward AIe Skills aims to foster a cultural shift towards responsible, inclusive, and values-driven AI adoption in education.

9.1. Positioning within a European Ecosystem of Change

The project is aligned with an evolving European landscape that champions ethical innovation and

cooperation, by:

- Promoting equity, inclusion, and digital responsibility;
- Empowering critical and ethical engagement with emerging technologies;
- Supporting the co-creation of a European vision for AI in education based on practice, research, and lived experience.

9.2. Leveraging Strategic Platforms for Long-Term Reach

The project benefits from partners embedded in major European networks:

- **ACE2-EU** (led by IPSantarém)
- **NEOLAIA** (led by UJA)
- **FOREU4ALL**, uniting over 65 European University Alliances;
- Platforms like **HEInnovate**, **EURAXESS**, and the **New European Bauhaus** (NEB).

These channels ensure that project insights influence mainstream conversations about learning and digital transformation in Europe.

9.3 Inspiring the Next Generation of Policy and Practice

The lasting legacy of Forward AIe Skills will be its contribution to a responsible, ethical, and inclusive approach to GenAI in education, offering:

- A blueprint for responsible GenAI integration;
- A platform for cross-sector, cross-country mutual learning;
- A contribution to the policy imagination needed to govern AI in alignment with European value.

10. Dissemination: Strategic communication to maximise outreach

A comprehensive dissemination and communication plan will be implemented to ensure that project outcomes reach policymakers, VET providers, enterprises, industry professionals, and young learners. The plan follows a multi-channel approach, engaging different audiences at various stages of the project.

Phase 1: Awareness & Engagement (Months 1–6)

- **Project Website & Open-Access Platform**
  Centralized access to educational materials, reports, and policy guidelines for all target groups and communities.
  🔗 Already online: https://aieskills.ipsantarem.pt
  Target: 5,000+ unique visitors by project end.

- **Social Media Campaigns (LinkedIn, Facebook, YouTube, etc.)**
  Regular updates, testimonials, and interactive discussions to engage all audiences.
  Target: 500+ followers.

- **Kick-off Webinar**
  Introduction of the project to stakeholders.
  Target: 50+ participants.

Phase 2: Knowledge Transfer & Policy Influence (Months 6–24)

- **Workshops & Webinars for Educators**
  Capacity-building sessions focused on integrating AI skills into education.
  Target: 40+ educators trained.

- **Public AIe Conferences**
  Showcasing project results to academia, industry, and civil society.
  Target: 4+ conferences with 40+ attendees per event.

- **Industry & Policy Collaboration Events**
  Engaging enterprises and policymakers on AI skills integration and future strategies.
  Target: 20+ companies reached and 10+ decision-makers engaged.

Phase 3: Sustainability & Legacy (Months 24–36 & Beyond)

- **Scientific Publications and White Papers**
  Research-based dissemination to academic and policy communities.

DISSEMINATION TOOLS AND FORMATS

DISSEMINATION TOOL	FORMAT	TARGET AUDIENCES
Website & Digital Repository	Online platform	All Target groups and stakeholders
Social Media Channels	Posts, videos, infographics	General public, educators, industry
Workshops & Webinars	Interactive training sessions	Educators, trainers, enterprises
Industry & policy collaboration	Open discussions	Enterprises, policymakers
Aie Conferences	Academic & industry presentations	VET and HEI sectors, enterprises, academia

Target: 5+ papers and/or handbooks published.

- **AIe Skills Repository**
  Open-access library of training materials, ensuring broad and sustained use.
  Target: 500+ accesses.

- **Ongoing Digital Community Engagement**
  Continued interaction through LinkedIn groups and the creation of an AI education network to foster long-term collaboration.

As outlined, each dissemination activity will be mapped to specific audiences and objectives to ensure timely and effective outreach. Dissemination partners will

track engagement metrics (e.g., website traffic, event attendance, usage of project outputs) to continuously refine strategies and improve impact.

Responsible Partners and Their Dissemination Expertise

All partners will actively contribute to dissemination activities, leveraging their specific expertise and networks to maximize the project's visibility and impact. Each institution brings unique strengths in key areas such as:

Vocational Education and Training (VET); **Industry Collaboration**; **Digital Transformation** and **Policy Advocacy**

Through a collaborative approach, the consortium will ensure dissemination efforts reach the right stakeholders through the most effective channels.

Partner tasks include:

- Promoting project results through national and European networks.
- Organizing sector-specific events to showcase project outcomes.
- Engaging directly with policymakers and companies.
- Ensuring the integration of AI skills into educational curricula and workforce training programmes.

By combining their efforts, the consortium will guarantee that dissemination activities are comprehensive, impactful, and aligned with the project's strategic objectives.

10.1 Sustainability and Post-Project Dissemination

To sustain dissemination beyond the project's completion, the consortium will:

- **Maintain the digital repository** for long-term access to AI training materials.

- **Continue social media engagement** through a dedicated AIe Skills network.
- **Pursue EU and national funding** opportunities to further expand AI integration in VET systems.
- **Ensure institutional adoption** by embedding AIe modules into educational curricula.

11. Forward AI^{e} Skills Needs Analysis and Specific Objectives

11.1. Forward AIe Skills Needs Analysis

The **Forward AIe Skills** project is grounded in a comprehensive needs analysis identifying critical barriers to the adoption of Generative Artificial Intelligence (Generative AI) in education and training across Europe. Key challenges include the lack of institutional frameworks, disparities in access and digital literacy, ethical and pedagogical risks, and insufficient training for educators and managers. The project's clear, measurable, and realistic objectives directly address these gaps, with defined indicators to track progress and success.

While Generative AI offers transformative opportunities for education—such as personalized learning, innovative teaching methods, and enhanced administrative processes—its widespread adoption is hampered by systemic barriers:

- **Lack of Institutional and Policy Frameworks:** Only 7% of schools and 13% of universities have policies on the use of Generative AI (UNESCO, 2023), highlighting the urgent need for clear ethical guidelines and operational frameworks.
- **Inequalities in Access and Digital Literacy:** 44% of EU citizens lack basic digital skills, and only 39% of teachers feel adequately prepared to integrate digital technologies into their teaching (European Commission, 2021). Digital inclusion initiatives are essential to bridge these gaps.
- **Ethical and Pedagogical Risks:** Algorithmic bias, lack of transparency, insufficient human oversight, and data privacy concerns pose significant barriers to responsible AI adoption. These risks must be systematically addressed to ensure AI supports educational values.
- **Insufficient Training for Educators and Managers:** The absence of structured professional development programs limits the ability of educators and institutional leaders to effectively use AI tools, underscoring the need for targeted capacity-building efforts.
- **Adult Learning Gaps:** 47% of EU adults still lack basic digital skills, with significant generational divides—only 28% of those aged 55–74 possess sufficient competences (Eurostat, 2023). Additionally, only 20% of workers engage in annual upskilling, with lower participation among vulnerable groups such as the unemployed and low-skilled workers. Sectors like industry and energy face acute digital and green skills shortages, with 62% of companies reporting recruitment difficulties.

11.2. Project Response and Strategic Objectives

The **Forward AIe Skills** project directly responds to these challenges by promoting the ethical, inclusive, and effective use of Generative AI to support flexible, personalized, and skills-oriented learning pathways. Aligned with **CEDEFOP's strategic vision**, the project aims to:

- **Enhance the responsiveness of VET systems** by developing AI-powered tools that support modular, adaptive, and learner-centered educational approaches.
- **Facilitate re-skilling and up-skilling of adult learners**, including NEETs (Not in Education, Employment, or Training) and workers undergoing professional transitions, through tailored resources, AI-driven career guidance, and the promotion of microcredentials.
- **Promote equity and inclusion** by reducing access barriers, recognising informal competences, and providing flexible, on-demand learning formats that meet learners' diverse needs.

When designed and applied ethically, **Generative AI** holds the potential to transform lifelong learning, making it more accessible, engaging, and effective. In doing so, it supports individual empowerment and strengthens labour market resilience across Europe.

11.3 Forward AIe Skills Specific Objectives

To overcome existing barriers and maximize the positive impact of Generative AI in education, **Forward AIe Skills** defines seven strategic objectives. Each is clear, measurable, and realistic, supporting a phased and sustainable transformation—from research to policy impact.

Objective 1: Map Existing Generative AI Initiatives in Education
Identify and analyze current projects, tools, and institutional strategies across Europe to highlight challenges, success factors, and best practices.
Key Indicators:

- Initiatives mapped (Baseline: 0; Target: 50)
- Challenges and success factors identified (Baseline: 0; Target: 10)
- Policy/literature reviews conducted (Baseline: 0; Target: 3)
- Synthesis report and taxonomy of best practices produced (Baseline: 0; Target: 1)

Objective 2: Develop Ethical and Pedagogical Guidelines and Training Resources
Create structured guidelines, assessment tools, and training materials aligned with EU frameworks (DigComp, AI Act, GDPR) and ethical standards.
Key Indicators:

- Guidelines and toolkits produced (Baseline: 0; Target: 5)
- Educators trained using these resources (Baseline: 0; Target: 500)
- Pilot user satisfaction score (Baseline: 0; Target: 4.5/5)

Objective 3: Design and Test Innovative AI-based Teaching and Learning Models
Develop, implement, and evaluate inclusive, learner-centered pedagogical approaches that ethically integrate Generative AI.
Key Indicators:

- Methodologies developed and tested (Baseline: 0; Target: 4)
- Pilots conducted, including with NEETs/low-qualified adults (Baseline: 0; Target: 10; 4 with NEETs)
- Reported improvement in learning outcomes (Baseline: 0%; Target: 20%)

Objective 4: Deliver Training Courses and Microcredential Modules
Promote AI literacy, critical thinking, and digital skills among educators, learners, and institutional leaders, with a focus on accessibility and equity.
Key Indicators:

- Training modules developed (Baseline: 0; Target: 10)
- Microcredential modules created (Baseline: 0; Target: 5)
- Participants trained (Baseline: 0; Target: 1,000)
- Increase in AI literacy scores (Baseline: 0%; Target: 30%)

Objective 5: Pilot AI Applications in Higher Education and VET Institutions
Assess the pedagogical and equity impacts of AI tools through real-world pilots.
Key Indicators:

- Pilot sites and institutions involved (Baseline: 0; Target: 5)
- Students, educators, and staff participating (Baseline: 0; Target: ≥500)

- Improvement in digital equity metrics (Baseline: 0%; Target: 15%)

Objective 6: Promote Inclusive AI Adoption in Lifelong Learning and Adult Education
Support the ethical and accessible integration of AI solutions for adult learners, particularly in VET, among NEETs, low-skilled workers, and career changers.
Key Indicators:

- AI tools or use cases tailored to adult learners (Baseline: 0; Target: 5)
- Adult learners reached (Baseline: 0; Target: ≥250)
- Perceived benefits among participants (Baseline: 0%; Target: ≥75% reporting increased motivation, improved employability, or greater flexibility/accessibility)

Objective 7: Disseminate Project Outcomes and Develop EU-wide Policy Recommendations
Ensure broad visibility, facilitate knowledge transfer, and contribute to evidence-informed policymaking.
Key Indicators:

- Transnational events and workshops organized (Baseline: 0; Target: ≥10)
- Policy briefs or recommendations developed (Baseline: 0; Target: ≥5)
- Stakeholders attending events (Baseline: 0; Target: 1,000)

The objectives of **Forward AIe Skills** are directly aligned with the specific goals of the Erasmus+ call, addressing the urgent need for organizational readiness, institutional capacity building, and the ethical adoption of AI in education. By promoting digital literacy, inclusivity, and responsible AI use, the project advances the EU's broader ambitions of digital transformation, workforce preparedness, and sustainable growth.

The project's strong emphasis on **transnational collaboration and knowledge sharing** ensures that its outcomes are scalable and adaptable across different educational contexts and sectors. Its European added value lies in fostering cross-border cooperation, enabling the exchange of best

practices, and co-developing solutions that can be tailored to diverse national and institutional settings.

By engaging a broad range of stakeholders—educators, students, policymakers, and industry representatives—the project promotes a culture of **inclusive innovation** in education. Its outputs, including training modules, ethical guidelines, and policy recommendations, are specifically designed to be transferable across formal and non-formal education sectors, such as adult learning and vocational education and training (VET).

The partnership adopts **state-of-the-art methodologies**, including co-design processes, adaptive assessments, and AI literacy benchmarking, to ensure the relevance, innovation, and impact of its results. Leveraging cutting-edge technologies and progressive pedagogical approaches, **Forward AIe Skills** sets a new benchmark for the ethical and effective integration of Generative AI in education, training, and lifelong learning.

By addressing critical gaps in the adoption of Generative AI, the project ensures that its integration is ethical, inclusive, and effective. Through an **evidence-based approach**, it delivers tangible outcomes that enhance digital and AI literacy, promote responsible AI practices, and drive innovation and collaboration across the education sector.

In the long term, the project will strengthen the European learning ecosystem by equipping educators and learners with the skills needed to navigate an AI-driven future, thereby contributing to a more resilient, innovative, and inclusive Europe.

12. Forward AI[e] Skills Building a Sustainable and Collaborative Research Ecosystem

12.1 Consortium set-up

The **Forward AIe Skills** partnership brings together a diverse consortium of organizations with complementary expertise, ensuring a comprehensive approach to AI adoption in education.

- **CIAC-PLDIS IPSantarém (Portugal) – Coordinator:**
  A leading institution in both Higher Education and Vocational Education and Training (VET), with strong expertise in digital skills, AI literacy, and EU project management (coordinator of the previous GenAI project). It maintains a close research collaboration with **ISTEC - LISBOA**

through a joint research center specializing in AI and education. Furthermore, **PLDIS – IPSantarém** and **LIK** are members of the **ACE2-EU European University Alliance**, reinforcing their strategic alignment in digital and engineering education.

- **University Francisco Victora (Spain) – Higher Education & Pedagogical AI:**
  Focused on the pedagogical applications of AI, teacher training, and AI ethics. The University actively collaborates with **CIAC-PLDIS – IPSantarém** to develop protocols for AI-driven educational tools and training programs in generative AI, ensuring a cohesive and comprehensive approach to AI capacity building.

- **ISTEC - LISBOA (Portugal) – Research & AI in Education:**
  A research institute specializing in AI, education, and innovation, leading initiatives on AI applications for teaching and learning. Its collaboration with **PLDIS – IPSantarém** is reinforced through a shared research center and joint involvement in AI Generative training initiatives.

- **CSI – Center for Social Innovation (Cyprus) – Social Innovation & AI Ethics:**
  A key player in AI ethics, digital governance, and inclusion, ensuring compliance with EU regulations such as the AI Act, GDPR, and DigComp 2.2. **CSI** and **PLDIS – IPSantarém** have a strong history of collaboration on European projects focused on digital transformation and social innovation.

- **LIK – Lietuvos Inžinerijos Kolegija (Lithuania) – AI & Engineering Education:**
  A long-established higher education institution specializing in engineering and technology, with strong links to industry. Its involvement is strategically enhanced by its membership in the **ACE2-EU European University Alliance**, fostering deeper cooperation in AI and engineering education.

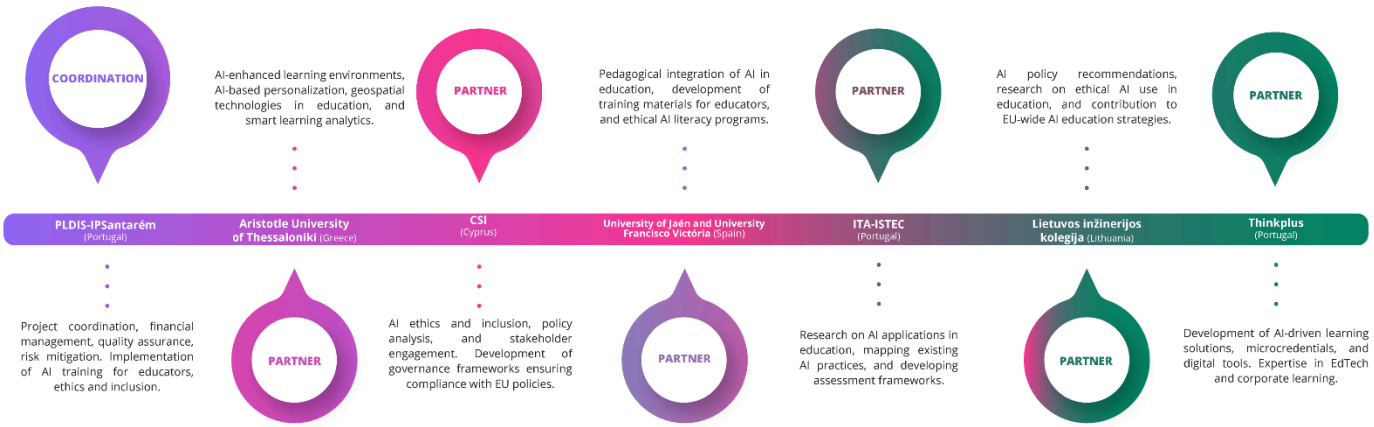
- **AUTH – Aristotle University of Thessaloniki (Greece) – AI in Education & Geoinformatics:**
  Specializes in AI-driven learning environments, geospatial technologies, and adaptive learning systems, contributing crucial expertise to the development of innovative AI frameworks for education.

- **University of Jaén (Spain) – Higher Education & Pedagogical AI:**
  Focused on the pedagogical applications of AI, teacher training, and AI ethics. The University actively collaborates with **PLDIS – IPSantarém** and **ISTEC - LISBOA** to develop protocols for AI-driven educational tools and training programs in generative AI, ensuring a cohesive and comprehensive approach to AI capacity building.

- **Thinkplus (Portugal) – EdTech & Consultancy:**
  Specializes in digital education, corporate training, and learning innovation. **Thinkplus** ensures that the AI tools and microcredentials developed meet labour market needs, building on previous collaborative work with **PLDIS – IPSantarém**.

COMMITMENT

PARTNER CONTRIBUTIONS & ROLES



- **Strong connections to educators and vocational training sectors**: (**PLDIS – IPSantarém, ISTEC - LISBOA**).
- **Social impact, ethics, and policy expertise**: (**PLDIS – IPSantarém, CSI**).
- **Industry-driven implementation expertise: (Thinkplus, LIK).**

The project places particular emphasis on **AI ethics** within a **societal innovation** framework, ensuring that ethical considerations are integrated across all activities.

Each partner contributes distinctly and strategically, aligning their specific expertise with the project's objectives to ensure maximum impact and synergy across work packages.

The consortium represents a geographically diverse and balanced selection of Northern, Southern, and Eastern Europe, bringing a wide range of perspectives on AI education policies, digital skills, and innovation.

- **Portugal** (**PLDIS – IPSantarém, Thinkplus, ISTEC - LISBOA**): Expertise in VET, digital education, ethics, inclusion, and pedagogical innovation.
- **Spain** (**UFV University; UJA University):** Research excellence in AI education and pedagogical strategies.
- **Cyprus** (**CSI**): Leadership in AI ethics, social innovation, and inclusion.
- **Lithuania** (**LIK**): Specialized in AI policy and regulatory frameworks.
- **Greece** (**AUTH – Aristotle University of Thessaloniki**): Pioneers in AI-enhanced learning environments and geoinformatics.

This geographical distribution ensures a broad representation across the EU, facilitating comparative analysis, mutual learning, and the transferability of project outcomes across diverse education systems.

13. Decision-making

13.1 Project Coordination (CIAC-PLDIS IPSantarém – Lead)

The Forward AIe Skills project will be managed through a clear and structured governance framework, ensuring efficient coordination, decision-making, and communication among all consortium partners. The governance structure is designed to be adaptive, transparent, and responsive to the transnational nature of the project and the diverse expertise of the partners.

Key responsibilities of the Project Coordinator (**CIAC-PLDIS – IPSantarém**) include:

- Overall project management, financial oversight, and compliance with EU regulations.
- Regular liaison with the European Commission (EC) and external stakeholders.
- Ensuring effective project implementation and facilitating conflict resolution.

13.2 Governance Structure

A multi-level governance model will be established to guide project execution, quality control, and risk management:

- **Project Coordinator (PC) – CIAC-PLDIS – IPSantarém:**
  Oversees day-to-day management, financial control, reporting, and compliance.
- **Steering Committee (SC):**
  Comprising one representative from each partner and chaired by **CIAC - PLDIS – IPSantarém**.
    - Responsible for strategic decision-making, milestone approvals, and high-level project oversight.
    - Meets bi-annually (online and face-to-face) for strategic discussions.
- **Work Package Leaders (WPLs):**
  Appointed based on expertise to lead specific work packages.
    - Accountable for the execution, monitoring, and reporting of their respective WPs.
    - Conduct monthly internal meetings for progress updates and issue resolution.

- **Advisory Board (AB):**
  Composed of external experts and stakeholders in AI, education, and policy.
    - Provides strategic advice on AI ethics, educational impact, and policy alignment.
    - Ensures project outcomes remain relevant, forward-looking, and innovative.

13.3 Decision-Making Mechanisms

The project promotes a collaborative, structured, and transparent decision-making process:

- **Consensus-Based Approach:**
  The Steering Committee aims for unanimous agreement on all major decisions.
- **Escalation Process:**
  If consensus cannot be achieved, the Project Coordinator will mediate discussions to find a solution.
- **Voting System:**
  In the event of critical disagreement, a majority vote (minimum 60% agreement) will determine the final decision.
- **Conflict Resolution Protocol:**
  A predefined framework will be activated to professionally and efficiently manage disputes.

13.4 Communication and Collaboration Mechanisms

To ensure seamless collaboration across multiple countries and institutions, the project will implement a multi-channel communication strategy:

- **Regular Meetings:**
    - Bi-weekly virtual meetings for each work package to track progress and resolve issues.
    - Quarterly consortium-wide virtual meetings to assess overall project status.
    - Annual face-to-face consortium meetings, hosted by rotating partners, for strategic planning and team building.

- **Project Management Platform:**
  A shared digital workspace (e.g., Microsoft Teams, Trello, or Asana) will facilitate document sharing, task tracking, and internal communication.

- **Transparent Reporting and Monitoring:**
    - Work Package Leaders will submit quarterly progress reports to the Project Coordinator.
    - A Quality Assurance Plan (QAP) will be implemented to ensure the delivery of high-quality outcomes.

13.5. Planning and Control

Robust planning, monitoring, and risk management mechanisms will underpin project implementation:

- **Gantt Chart and Milestone Tracking:**
  Regular review of activities against the project timeline.
- **Risk Mitigation Strategy:**
  A dynamic risk register will be maintained to proactively identify and address potential challenges.
- **Financial and Administrative Audits:**
  Mid-term and final audits will ensure adherence to EU funding regulations and financial transparency.

14. Forward AI^{e} Skills Joint Governance and Management Structures

Ensuring High-Quality Project Implementation

The **Forward AIe Skills** project has been collaboratively designed by all consortium members to align with their priorities, expertise, and strategic interests. This inclusive and iterative process, established from the outset, ensures that all partners are fully prepared to begin implementation immediately after the Grant Agreement is signed.

To ensure an effective launch:

- **Bilateral partnership agreements** will be prepared by the Coordinator (CIAC-PLDIS-IPSantarém), clarifying obligations, financial rules, roles, and responsibilities.
- An **initial online meeting** will bring together key representatives to review objectives, activities, timelines, risk scenarios, and collaboration frameworks, in preparation for the first **in-person Kick-off Meeting**.
- Each partner will **mobilize their internal teams** to allocate tasks and finalise resource planning.
- **Draft Management and Quality Handbook** will be circulated for discussion and validation before the Kick-off.

All partners commit to:

- Shared ownership of the project's mission and deliverables;
- Clear role and responsibility allocation;
- A strong focus on quality, innovation, and stakeholder engagement;
- Promoting the long-term integration of results within their institutions and networks.

These principles are reinforced by the consortium's diversity, co-creation ethos, and clear assignment of responsibilities based on expertise (see Annex Agreement).

14.1 Project Governance and Coordination

The management structure ensures collaborative decision-making, quality control, and timely delivery. It includes:

- **Project Coordinator (CIAC PLDIS-IPSantarém):** oversees day-to-day operations, compliance, and partner support;

- **Steering Committee:** one representative per partner, meeting regularly to review progress, risks, and strategies;
- **Work Package Leaders and Co-Leaders:** responsible for execution, monitoring, and reporting of WP activities;
- **Cross-Cutting Leads:** for dissemination, ethics, impact, and policy alignment.

14.2 Communication and Collaboration will combine:

- Shared digital platforms (e.g., Teams, Trello, Asana) for document sharing, task tracking, and coordination;
- A common communication protocol (mailing lists, file-sharing systems, virtual conferencing tools);
- Regular virtual and in-person meetings, including:
    - **Kick-off Meeting** (in-person);
    - **Annual consortium meetings** hosted by rotating partners;
    - **Quarterly Management Board meetings** (online);
    - **Monthly coordination meetings** (as needed);
    - **Bilateral meetings** between the Coordinator and WP leaders;
    - **On-site visits** by the Coordinator during key phases (optional).

14.3 Management and Quality Guidelines

At project start, the **Management and Quality Handbook** will be finalized, detailing:

- **Project Roadmap:** milestones, KPIs, deliverables, and WP interdependencies;
- **Financial Guidelines:** templates for reporting, budgeting, and compliance;

- **Risk Assessment Table:** identifying risks, impacts, and mitigation strategies;
- **Conflict Resolution Mechanisms:** clear procedures for addressing disputes.

14.4 Quality Assurance and Evaluation Strategy

A comprehensive **Monitoring, Quality Control, and Evaluation Plan** will be developed to ensure high standards, including:

- Quality indicators and performance benchmarks for each WP;
- Tools for feedback collection (surveys, checklists, peer reviews);
- Regular monitoring surveys to assess management, communication, and meeting effectiveness;
- Peer review processes focused on quality, relevance, compliance, and innovation;
- Stakeholder feedback integration, particularly from educators, students, and policymakers.

14.5 Evaluation dimensions will include:

- Structure and management: work plan implementation, task distribution, communication;
- Partnership performance: engagement, responsiveness, collaboration;
- Deliverables and outputs: quality, relevance, innovation, and usability;
- Meetings and coordination events: preparation, participation, decision-making quality;
- Learning and training activities: content relevance, quality, and usability.

14.6 Monitoring and Reporting:

Monitoring will occur at multiple levels:

- **WP Leaders** will collect and report partner inputs;

- **Coordinator** will compile reports, share feedback, and monitor risk and financial execution;
- **Annual internal reports** will contribute to project evaluations and guide improvements.

External experts may be engaged for independent reviews of key outputs to ensure objectivity and credibility.

14.7 Risk Management

A **dynamic Risk Register** will be maintained and updated throughout the project, tracking risks (e.g., delays, engagement challenges, ethical concerns) and mitigation strategies. It will be reviewed at each Management Board meeting.

Cost Effectiveness and Financial Management

The project budget is appropriately aligned with activities, ensuring resource adequacy without over- or underestimation. Continuous quality and financial control measures (peer reviews, benchmarking, quality indicators) will guarantee cost-effective implementation. Challenges are identified and mitigating actions are in place.

An **independent external quality assessment** will be conducted at mid-term and shortly before project completion to enable timely adjustments and ensure project success.

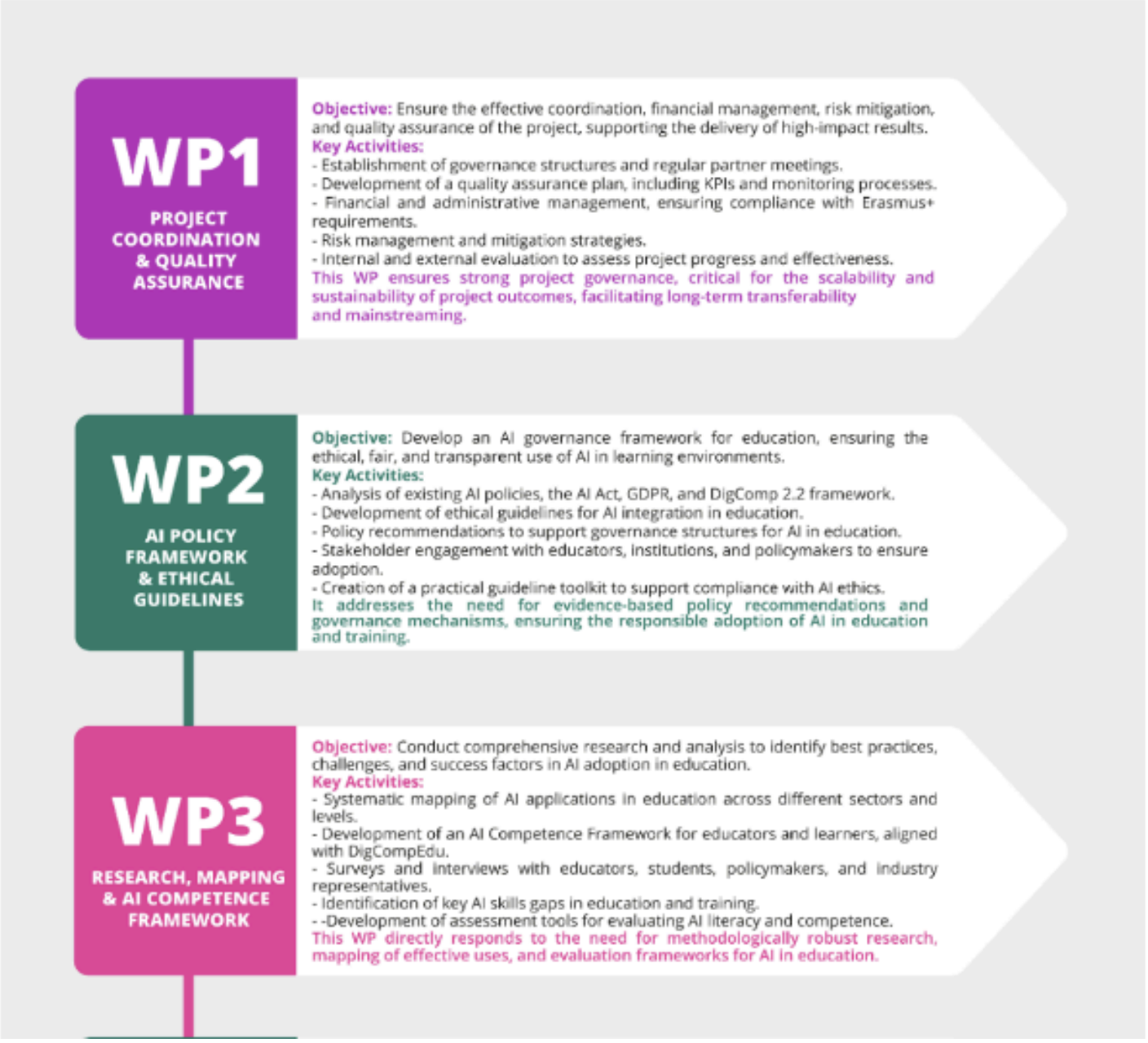
14.8 Project Budget

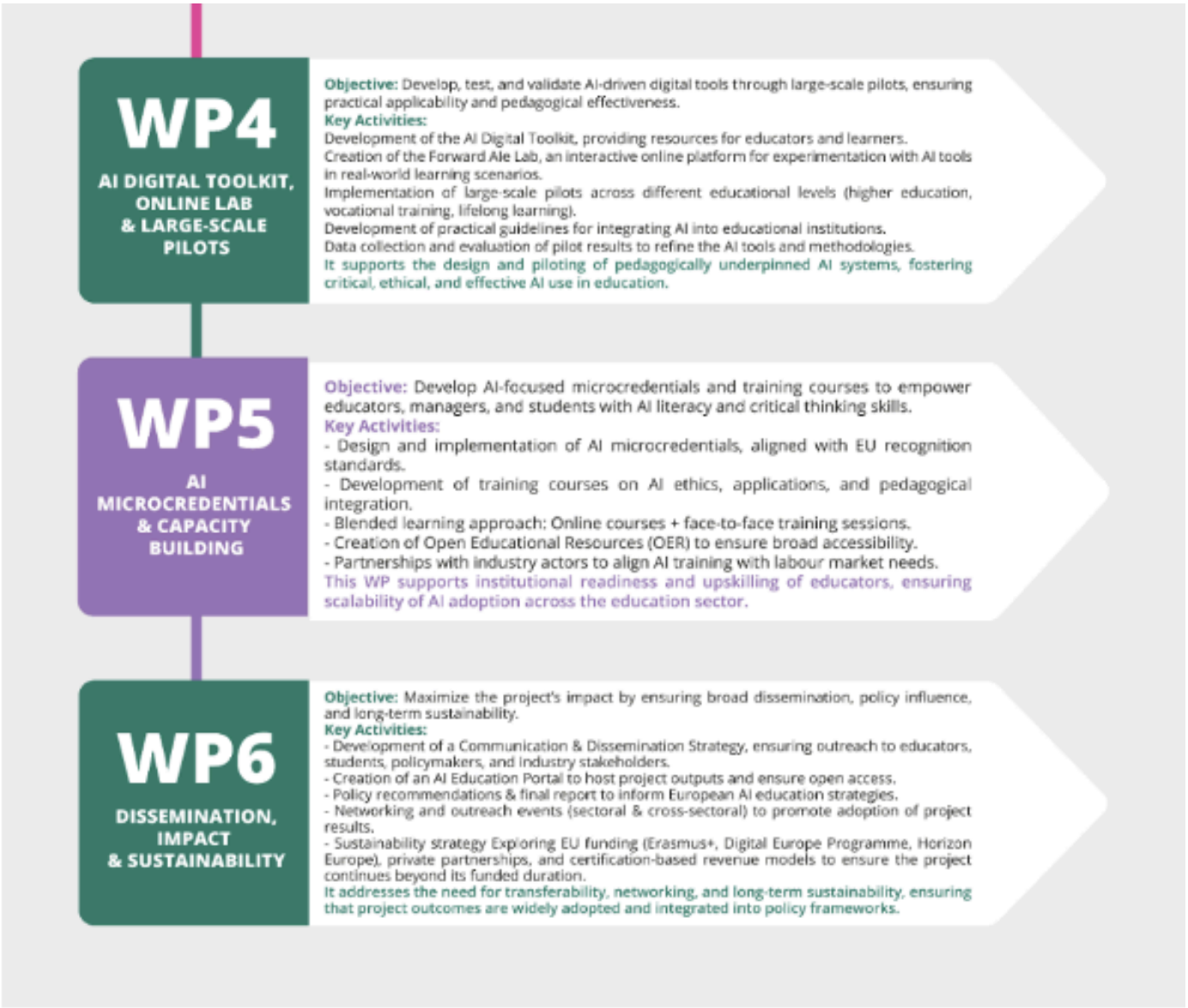
The detailed budget of the project is specified in the Application Form. By signing this agreement, the partners commit to securing the co-financing of 20% of the total amount, as established. It is important to note that this project is 80% funded by external sources, with the remaining amount being the responsibility of the participating partners, as agreed herein.

15. Work Packages

The Forward AIe Skills project is strategically aligned with the objectives of ERASMUS-EDU-2025-PI-FORWARD-DIGITAL-AI, while also addressing the specific needs of partners and target groups. It promotes the ethical, effective, and inclusive integration of Generative AI in education. The Work Packages (WPs) are thoughtfully designed to meet key priorities and deliver meaningful impact by enhancing

institutional readiness, advancing innovative teaching practices, and supporting evidence-based policy development.





16. Ethics

The Forward AIe Skills project brings together a diverse consortium of three public universities, one private university, two research centers, and one enterprise. This complementary network is committed to co-constructing and promoting AI ethics as a core element of digital transformation in an inclusive society.

Ethical considerations are fully aligned with the *Ethical Guidelines on the Use of AI and Data in Teaching and Learning for Educators*. These guidelines aims to:

- Raise awareness of AI's potential and risks in education
- Provide practical guidance, especially for teachers and educational staff at the primary and secondary levels
- Support broader educational stakeholders, including students, parents, and policymakers
- Offer hands-on examples, ethical requirements, guiding questions, emerging competences, and a glossary

To address the challenges of ethical co-construction in digital education and influence policy, the project will:

1. Identify diverse digital methods for inclusive participation among staff, students, and professors (Ethics & Human Involvement)
2. Enhance the use of AI tools for evidence-based participation and collaborative knowledge development (Ethics & Personal Data)
3. Apply advanced approaches to embed ethical AIe skills in research and practice across university networks (AI Ethics)

Ethics-focused training sessions are part of the Forward AIe Skills curriculum. In each partner country, an advisory board composed of citizens with lived experience and an ethics committee will support participant recruitment and monitor ethical integrity (see WP2).

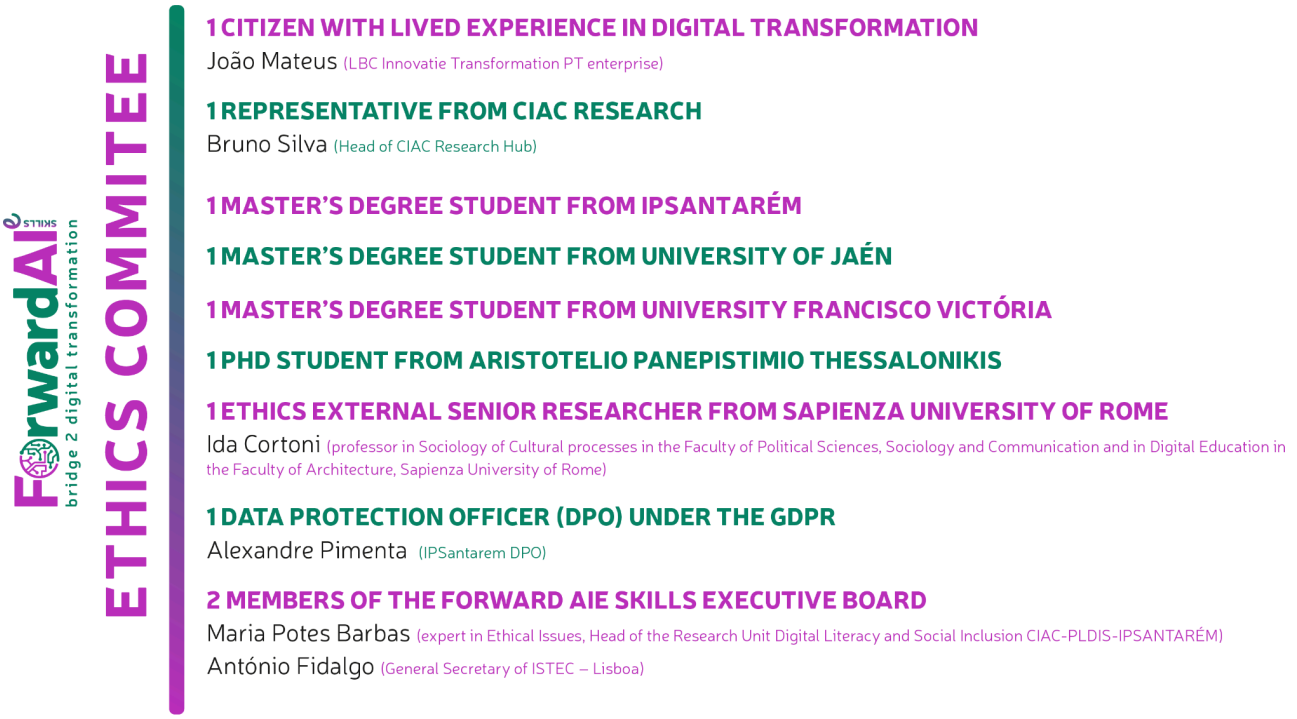
A comprehensive communication, dissemination, and exploitation strategy is detailed in the proposal. A dedicated team—comprising all partners, the project manager, and closely collaborating with the Ethics Committee—will ensure all activities adhere to ethical standards and address any concerns in content dissemination.

16.1Ethics Management Objectives

- Establish a quality assurance plan for training and research
- Develop a data management plan and network-wide document archive
- Supervise the Ethics and Executive Boards

16.2. Ethics Committee Composition

The Ethics Committee consists:



The committee meets twice annually in person to review data collection plans, anticipate dilemmas, and prevent harm throughout the project lifecycle.

16.3 Legal and Ethical Compliance

The consortium commits to the highest ethical standards, in compliance with national, EU, and international legislation (Articles 34, 39.2). This includes:

- Appointing a DPO and maintaining a detailed data protection policy

- Ensuring data minimization (Art. 5.1c, GDPR)
- Implementing robust security measures and anonymization techniques
- Providing clear, informed consent procedures and templates
- Adhering to principles from the EU's *Ethics by Design and Ethics of Use Approaches for AI*, including respect for human agency, fairness, accountability, and oversight
- Verifying the applicability of the *Ethics Guidelines for Trustworthy AI* by the High-Level Expert Group on AI and submitting the assessment as a deliverable

The proposal identifies three primary ethical domains:

- **Humans** (involvement of human participants)
- **Personal Data** (processing of sensitive information)
- **Artificial Intelligence** (development, deployment, or use of AI systems)

17. Signatures of Presidents and Rectors

This protocol is signed by the parties involved and is valid for 5 years, renewable by mutual agreement. The institutions undertake to respect the provisions set out herein, promoting effective collaboration that benefits the academic and professional development of students.

Signatures:

Assinado por: **JOÃO MIGUEL RAIMUNDO PERES MOUTÃO**
Num. de Identificação: 10991850
Certificado por: **Diário da República**
Atributos certificados: **Presidente do Instituto Politécnico de Santarém - Instituto Politécnico de Santarém**

João Moutão, President of the Santarém Polytechnic University

Assinado por: **ANTÓNIO MANUEL CHAVES FERNANDES FIDALGO**
Num. de Identificação: 07015060
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António Fidalgo, General Secretary of Instituto Superior de Tecnologias Avançadas de Lisboa

Sotiris Themistokleus, Director of Strategic Development at Center for Social Innovation - CSI

Kyriakos Yakinthos

Digitally signed by Kyriakos Yakinthos
Date: 2025.05.23 16:07:33 +03'00'

Kyriakos Yakinthos, Vice Rector for Research and Innovation at Aristotle University of Thessaloniki

Lina Girdauskienė, Director of Lietuvos Inžinerijos Kolegija

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Nicolás Ruiz Reyes, Rector of Jaén University

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Juan Perez-Miranda, Vice Rector of internationalization, Universidad Francisco Victoria

Assinado por: **Elsa Clara Morgado Casimiro**
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Data: 2025.05.23 11:32:29+01'00'
Certificado por: **SCAP**
Atributos certificados: **Gerente de THINKPLUS CONSULTING, LIMITADA (VAT PT-516268287)**

Elsa Casimiro, Director of ThinkPlus Consulting

Joaquim Mourato, Directorate General for Higher Education