EELISA

European University

EELISA
BROCHURE

EELISA BROCHURE - Table of contents

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FOREWORD

Dale A. MARTIN
President of EELISA

We live in an era of great challenges: overcoming a global health crisis, experiencing revolutionary technological advancements, setting ambitious goals to curb the climate emergency and the rise of inequality worldwide. In this context, it is essential to prompt a green and sustainable transformation, to join forces in the construction of resilient, fair and prosperous societies.

Higher education has a key role in making these transformations happen. It also has the great responsibility to foster a new generation of committed professionals and citizens who are ready to come together and contribute to solving today's and tomorrow's challenges. This is the vision of the new European Higher Education Area and we, EELISA, as part of the groundbreaking European Universities Initiative, are at the forefront of this process.

In the following pages, you will learn not only about the ideas and values behind EELISA, but also about the ways you can contribute and be part of it. My aim, therefore, is not only to welcome you to EELISA but also to welcome you to the new paradigm of education we are in the process of building. A new model in which excellence in education is always linked to social and environmental impact - where knowledge, innovation and sustainability come together to pave the way to a new future.

Sofia COSTA D'AGUIAR
EELISA Executive Director

If you are reading this, it means you are about to become one of the pioneers in the "EELISA journey" – the journey of an alliance of nine of the most prestigious European universities to transform European higher education into the seed of a society that masters global challenges with smart and sustainable solutions enabled by "European engineers"

For students, academics, staff and collaborators of our alliance, EELISA also means a unique opportunity to grow: to connect the learning experience to real societal impact, to attract more funding for research and innovation, to multiply the resonance and impact of our activities. This is also a chance to boost the employability of the students and to learn, work and innovate within diverse, multidisciplinary, and multicultural teams - all nurtured by an unprecedented network of collaborations that goes beyond the university ecosystem.

Whether you are about to join the mission-driven EELISA Communities, contribute to EELISA InnoCore, join an EELISA Work Package, participate in the EELISA Governance, or just help us communicate EELISA to the world, this is your first step of a great journey. We are delighted, and thankful, that you are our travel companion.

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1. WHAT IS EELISA

EELISA (European Engineering Learning & Innovation Science Alliance), is an alliance of ten prestigious universities from eight different countries in Europe meant to build a new paradigm of European higher education where excellence is always linked to societal impact by defining and implementing a new model of European Engineer rooted in society.

European

We come from different countries such as: Italy, Spain, Hungary, Romania, Germany, Turkey, France and Switzerland.

Engineering

We aim to inspire a new reinassance of a European Engineering mindset – interdisciplinary, multilingual, diverse.

Learning

Cross-institutional education multidiscliplinary, and research-based learning to tackle global challenges by providing smart, sustainable solutions.

Innovation

Unlocking full innovation capacity building and entrepreneurship spirit to contribute to the transformation of HEIs into key players of the entrepreneurial and innovation ecosystem.

Science

Fostering systemic transformation of the world through scientific and technological solutions while Bridging STEM and SSH and Arts.

Alliance

Opening doors to new ways of cooperation among Higher Education Institutions across Europe and share resources, knowledge & infrastructure.

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1.1 WHAT INSPIRES EELISA

EELISA's acronym also pays a tribute to women engineers through the memory of Elisa Leonida Zamfirescu (1887 – 1973), one of the very first women to obtain an engineering degree in the world. She also embodied the core elements of EELISA Alliance: she had a multi-cultural and cross-border background, contributed to engineering with innovative methods for the analysis of minerals and had a determined social commitment.

Click on the images to learn more

WATCH EELISA's VIDEO and let your inspiration flow!

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1.2 MEET EELISA PARTNERS
(click the image to learn more about the institutions)

Alliance members.
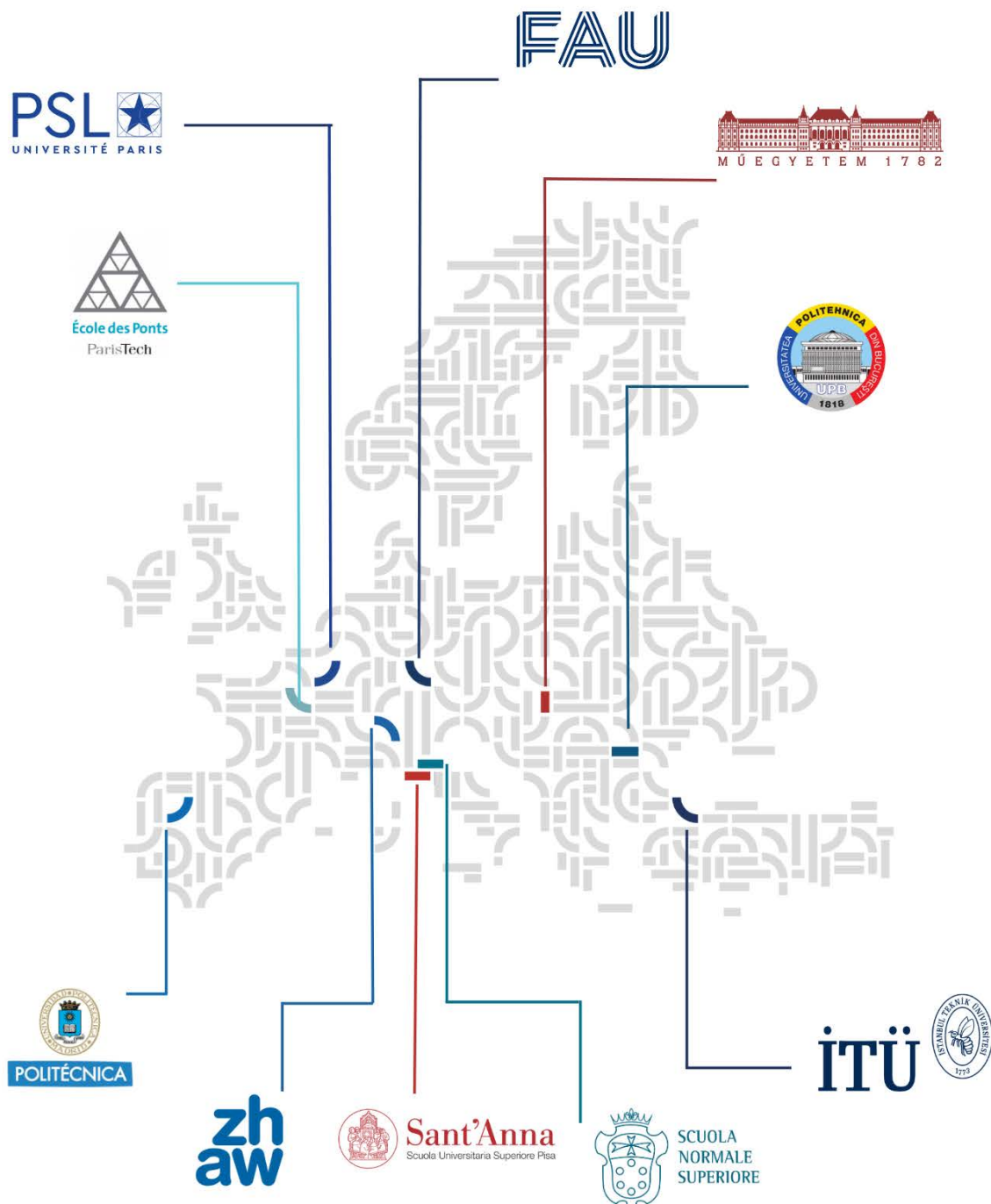
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1.3 EELISA IN KEY FIGURES

8 Countries	10 Universities
194,000 Students	18,500 Faculty
12,000 Staff	45 Communities
34 Associate Partners	1,301 EELISA Credentials

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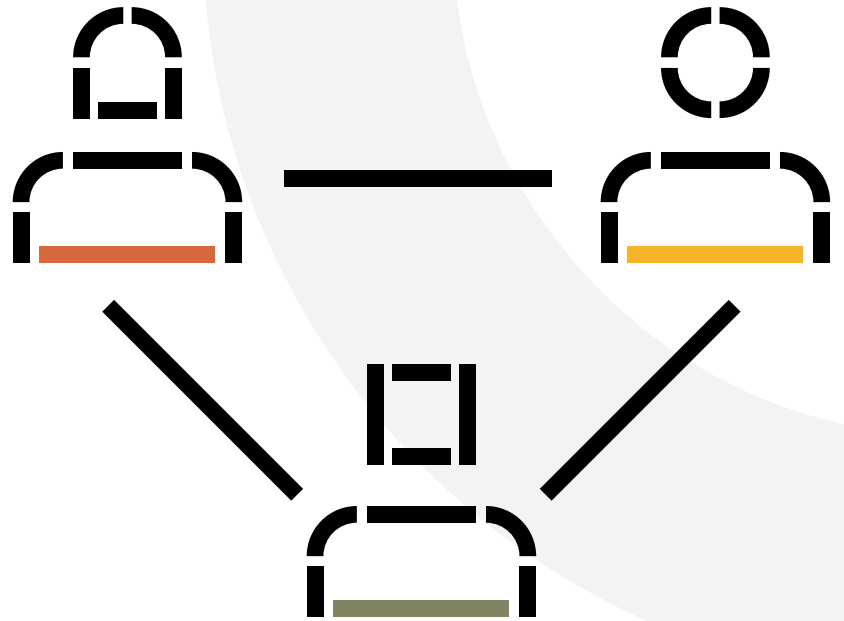
1.4 EELISA IN KEY SENTENCES

- We envision European higher education taking a leading role towards the equitable Green and Digital transformations needed to ensure a prosperous, fair, and sustainable society.

- EELISA will transform partner institutions and current standards in European higher education by equipping future European engineers with the capacities and skills needed to embrace complex technical and societal problems.

- EELISA will contribute to a new paradigm where societies thrive and master global challenges with smart and sustainable solutions empowered by a new generation of European Engineers who can understand, identify and cooperatively contribute to solving societal challenges.

- European Engineers who are trained in an educational model where academic excellence is linked to social impact and learning processes evolve in multidisciplinary, diverse, and multicultural environments based on transnational cooperation and sustainable mobility.

- A model where students, teachers, researchers, and non-academic staff from different disciplines and institutions come together to solve real-world problems in collaboration with public organizations, private companies, NGOs, and civil society.

- Vibrant mission-driven communities where knowledge, skills transfer and lifelong learning happens beyond classrooms, labs and hubs to turn society itself into an Innovation Lab.

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1.5 THE EELISA EUROPEAN ENGINEER PROFILE

EELISA aims to develop a common model of European engineer profile rooted in society, focused on increased inclusiveness, cross-disciplinarity and commitment. Such a profile includes high-level technical and scientific competencies and encompasses environmental, social and multicultural skills in order to address the new challenges of a global society and the expectations of companies.

The EELISA Engineer Profile is based on **four general pillars**, that will be based on a hybrid educational system:

1. SKILLS

A student-centered education with disciplinary broadening and high-level of scientific, theoretical and digital skills.

Here, training in research methodologies and relevant literature is key to help evaluate the data or processes using state of art methods.

2. SUSTAINABILITY

A philosophy of work and social life while fostering responsibility of engineers.

European engineers will need to carry out a critical study of the risks that pertain to the development of new technologies, and consider the entire life cycle of products and services they design and produce.

3. INTERCULTURALISM

Mobility opportunities within EELISA and a network of European engineers with shared values.

By being exposed to different professors, university environments and cultures, students will become more aware of different societal issues, ethical problems and cultural dispositions.

4. CRITICAL THINKING

Practical and applied knowledge.

Engineers will be exposed to economic, organizational and managerial issues, requiring training related to communication skills, decision-making and independent learning to integrate the views of multiple stakeholders into their decision and creative processes.

Learn more: https://eelisa.eu/the-european-engineer/

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2. CONTEXT & FRAMEWORK

Sustainable development is crucial to the future of Europe and the entire planet. The framework of the **Sustainable Development Goals** (SDGs) – understood as a common international framework for concrete action - ensures social cohesion, economic prosperity and protection of the environment. **Education, research and innovation are essential in sustainable development, making universities key contributors to achieving the goals.**

Europe needs inclusiveness and sustainability, embracing the changes brought about by the green transition, technological evolution and globalisation while making sure no-one is left behind **(A New Strategic Agenda 2019-2024).**

The European Union has committed to work towards these goals both within Europe and with its partners abroad **(European Agenda 2030).**

Thus, EELISA Alliance was created in the framework of the **European universities' initiative**, led by the European Commission – a program established to strengthen strategic partnerships across Europe and develop the international competitiveness of European universities.

Consequently, the European Commission launched an Erasmus+ call for proposals inviting European universities to create transnational alliances which would become the universities of the future, promoting European values and creating the **Higher Education Area of Tomorrow.** An initiative that aims to support European Union Members in building "resilient and forward-looking education and training systems", and acknowledges the vital role that education and training have to play when it comes to shaping the new future of Europe.

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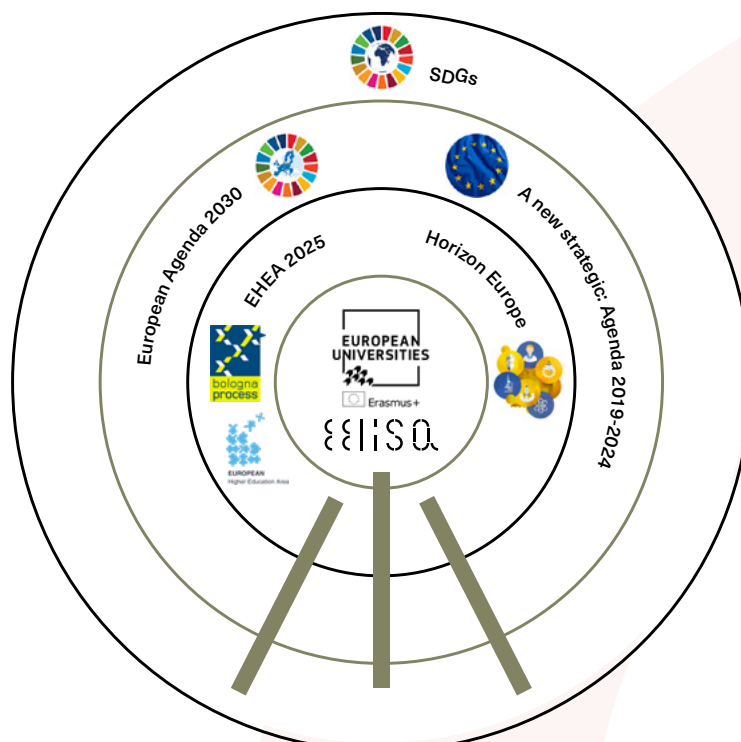
3. EELISA's MISSION & VISION

(in one diagram and six sentences)

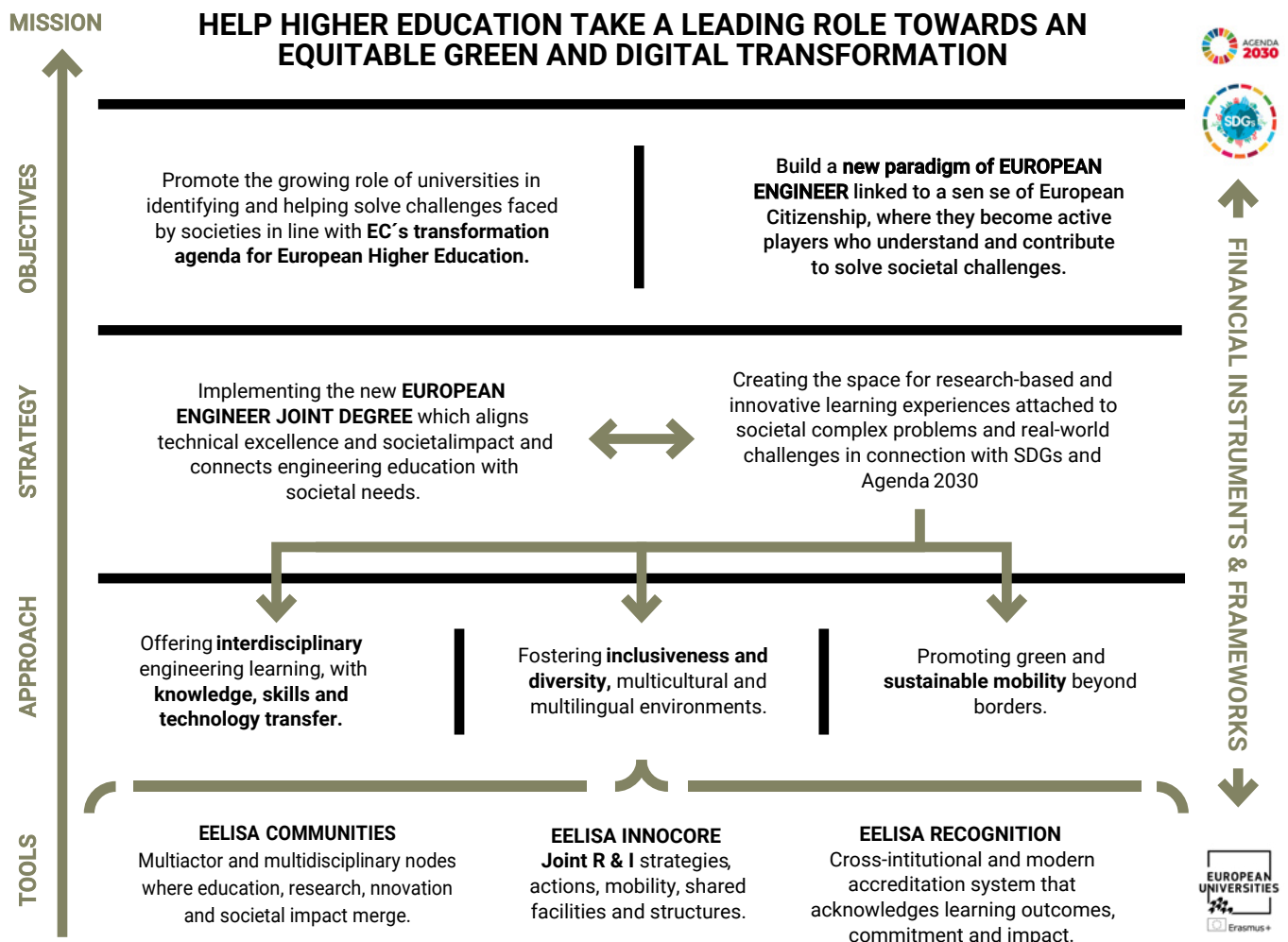Departing from the previously presented context and frameworks, and as it is reflected in the latest declaration of the Governing Board dated April 20, 2021, EELISA's mission, as well as the objectives, vision, strategy and tools can be synthesized in the following diagram and sentences:

MISSION

HELP HIGHER EDUCATION TAKE A LEADING ROLE TOWARDS AN EQUITABLE GREEN AND DIGITAL TRANSFORMATION

OBJECTIVES

Promote the growing role of universities in identifying and helping solve challenges faced by societies in line with **EC´s transformation agenda for European Higher Education.**

Build a **new paradigm of EUROPEAN ENGINEER** linked to a sen se of European Citizenship, where they become active players who understand and contribute to solve societal challenges.

STRATEGY

Implementing the new **EUROPEAN ENGINEER JOINT DEGREE** which aligns technical excellence and societalimpact and connects engineering education with societal needs.

Creating the space for research-based and innovative learning experiences attached to societal complex problems and real-world challenges in connection with SDGs and Agenda 2030

APPROACH

Offering **interdisciplinary** engineering learning, with **knowledge, skills and technology transfer.**

Fostering **inclusiveness and diversity,** multicultural and multilingual environments.

Promoting green and **sustainable mobility** beyond borders.

TOOLS

EELISA COMMUNITIES
Multiactor and multidisciplinary nodes where education, research, nnovation and societal impact merge.

EELISA INNOCORE
Joint R & I strategies, actions, mobility, shared facilities and structures.

EELISA RECOGNITION
Cross-intitutional and modern accreditation system that acknowledges learning outcomes, commitment and impact.

FINANCIAL INSTRUMENTS & FRAMEWORKS

AGENDA 2030

SDGs

EUROPEAN UNIVERSITIES
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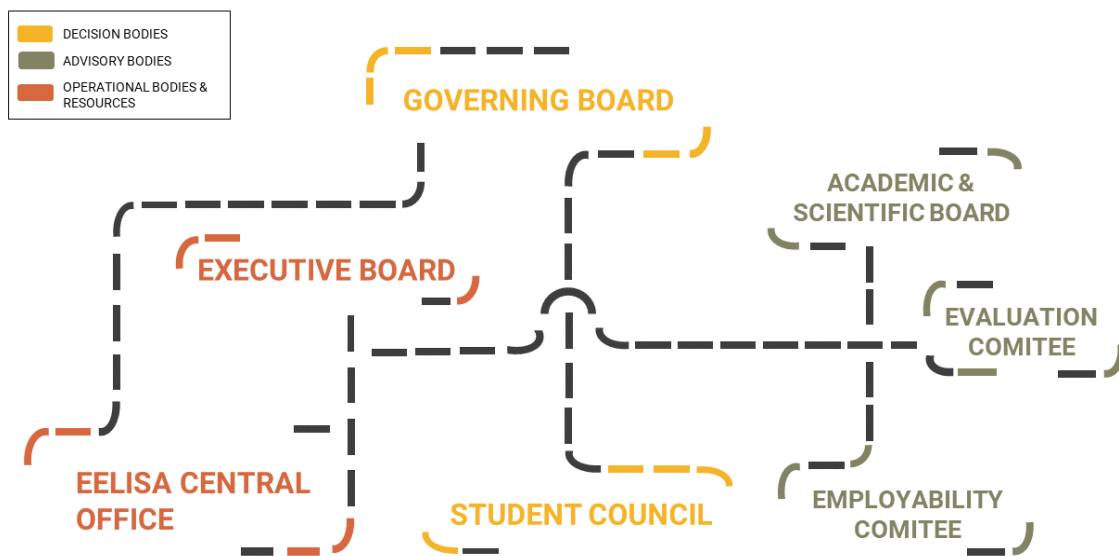
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4. GOVERNANCE & STRUCTURE

The EELISA Governance relies upon a series of Decision, Advisory, and Operational bodies and resources, meant to give a voice to all the members of the EELISA community while ensuring the correct implementation of the project.
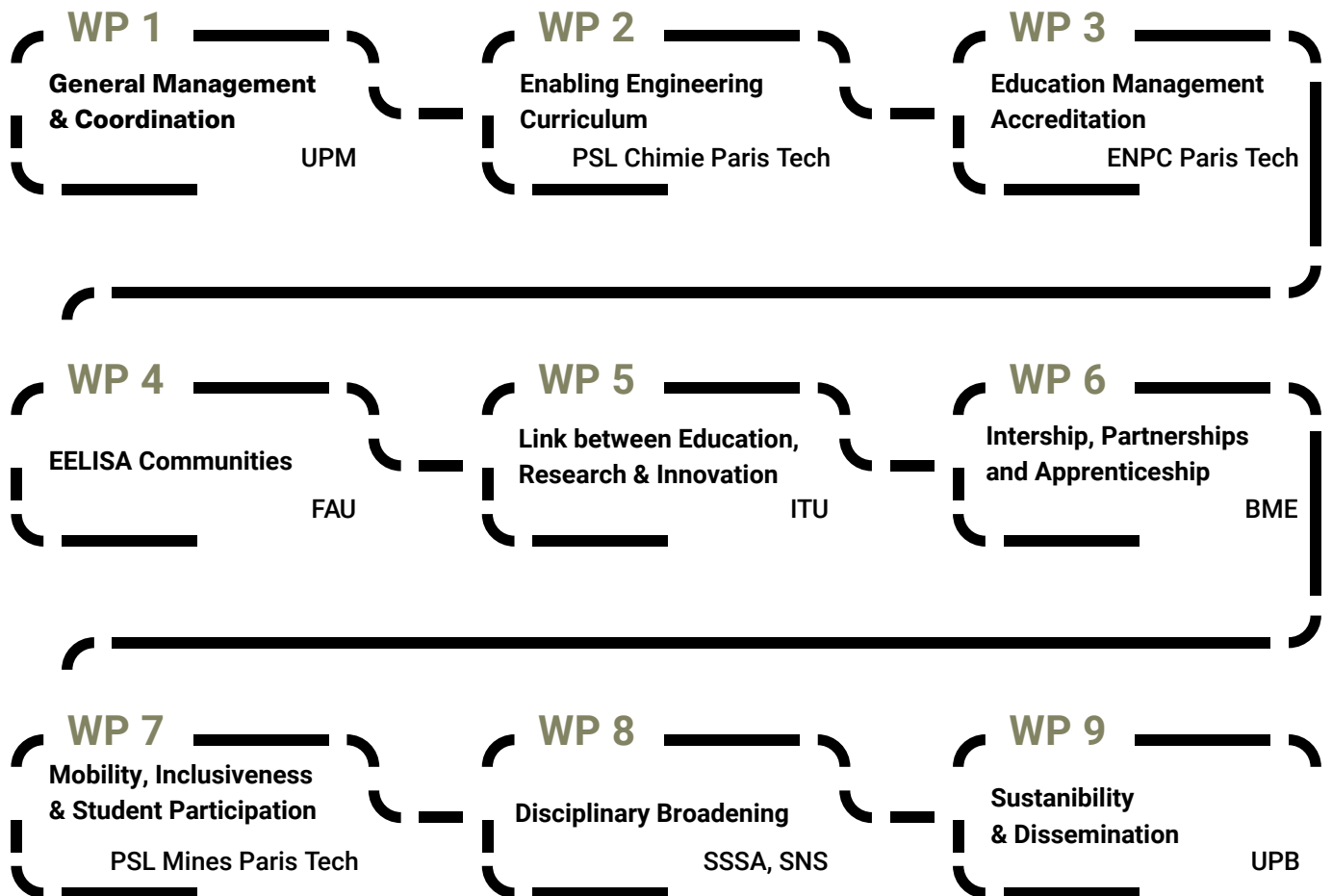
4.1 GOVERNING BODIES

DECISION BODIES
ADVISORY BODIES
OPERATIONAL BODIES & RESOURCES

GOVERNING BOARD

ACADEMIC & SCIENTIFIC BOARD

EXECUTIVE BOARD

EVALUATION COMITEE

EELISA CENTRAL OFFICE

STUDENT COUNCIL

EMPLOYABILITY COMITEE

Learn more: https://eelisa.eu/governance-and-structure/

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4.2 OPERATIONAL STRUCTURE

WP 1
General Management & Coordination

UPM

WP 2
Enabling Engineering Curriculum

PSL Chimie Paris Tech

WP 3
Education Management Accreditation

ENPC Paris Tech

WP 4
EELISA Communities

FAU

WP 5
Link between Education, Research & Innovation

ITU

WP 6
Intership, Partnerships and Apprenticeship

BME

WP 7
Mobility, Inclusiveness & Student Participation

PSL Mines Paris Tech

WP 8
Disciplinary Broadening

SSSA, SNS

WP 9
Sustanibility & Dissemination

UPB

Learn more: **https://eelisa.eu/governance-and-structure/**

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5. EELISA's VISION INTO PRACTICE

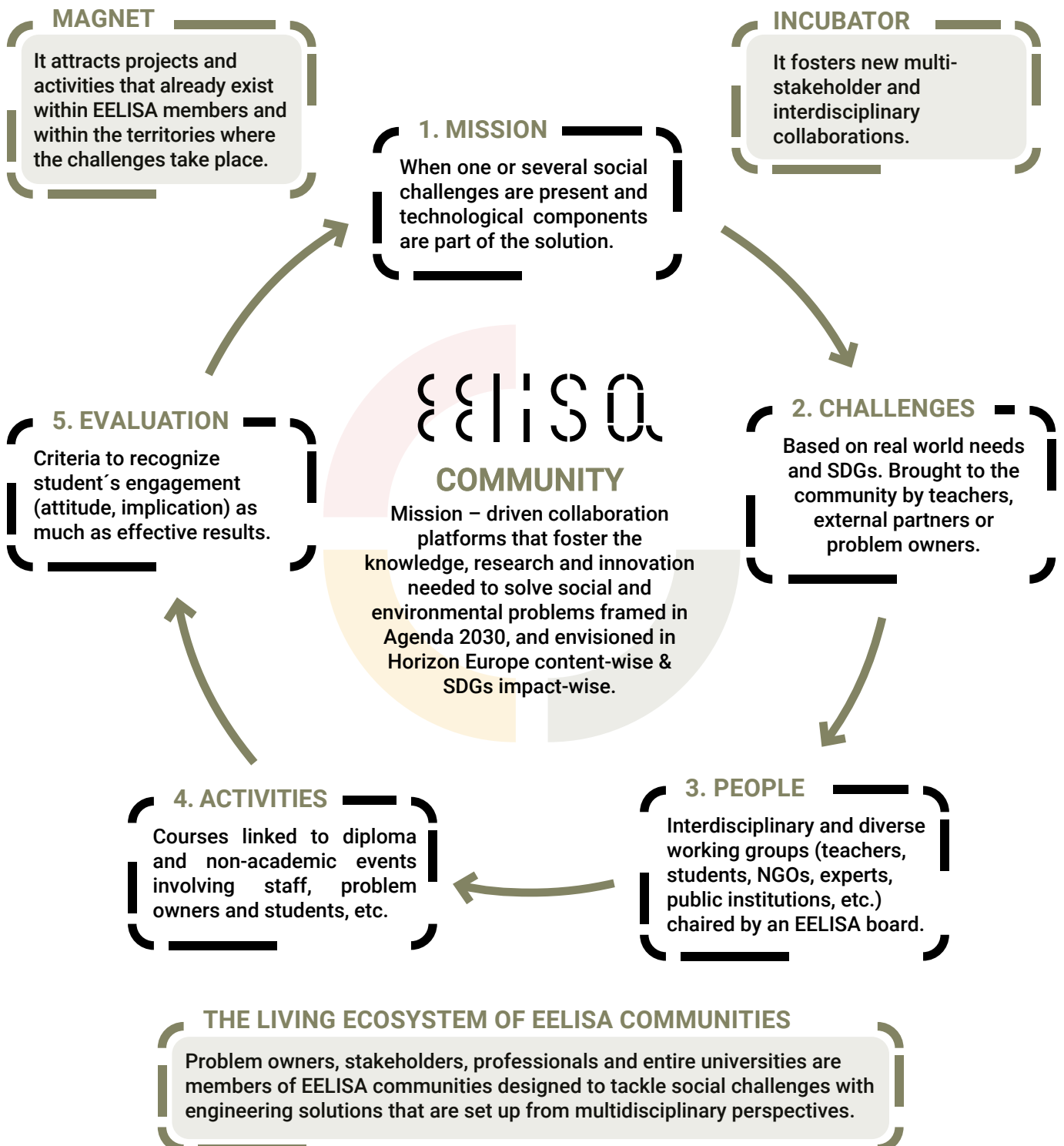|	
EELISA COMMUNITIES	Knowledge, research, innovation and multi-actor collaboration to tackle real-world challenges connected to SDGs
EELISA INNOCORE	Joint Research & Innovation strategies, actions, mobility, shared facilities and structures.
EELISA UNFOLDS	Activities to dive into entrepreneurial and innovation ecosystems
EELISA RECOGNITION	Cross-border recognitions of academic excellence and societal impact. – EELISA Credential – EELISA Supplement – EELISA Degree

Learn more **https://eelisa.eu/**


OUT OF THE BOX / INTO THE FUTURE

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5.1 EELISA COMMUNITIES

WHAT ARE THEY?

MAGNET

It attracts projects and activities that already exist within EELISA members and within the territories where the challenges take place.

INCUBATOR

It fosters new multi-stakeholder and interdisciplinary collaborations.

1. MISSION

When one or several social challenges are present and technological components are part of the solution.

EELISA COMMUNITY

Mission – driven collaboration platforms that foster the knowledge, research and innovation needed to solve social and environmental problems framed in Agenda 2030, and envisioned in Horizon Europe content-wise & SDGs impact-wise.

2. CHALLENGES

Based on real world needs and SDGs. Brought to the community by teachers, external partners or problem owners.

5. EVALUATION

Criteria to recognize student´s engagement (attitude, implication) as much as effective results.

4. ACTIVITIES

Courses linked to diploma and non-academic events involving staff, problem owners and students, etc.

3. PEOPLE

Interdisciplinary and diverse working groups (teachers, students, NGOs, experts, public institutions, etc.) chaired by an EELISA board.

THE LIVING ECOSYSTEM OF EELISA COMMUNITIES

Problem owners, stakeholders, professionals and entire universities are members of EELISA communities designed to tackle social challenges with engineering solutions that are set up from multidisciplinary perspectives.

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5.1.1 The EELISA Community Platform

The main purpose of this platform is to give visibility to the EELISA Communities, promote their activities and offer a space for collaboration and networking open to the EELISA Community at large.

(Visit www.eelisa.eu or click on the image below to access the EELISA Community Platform)
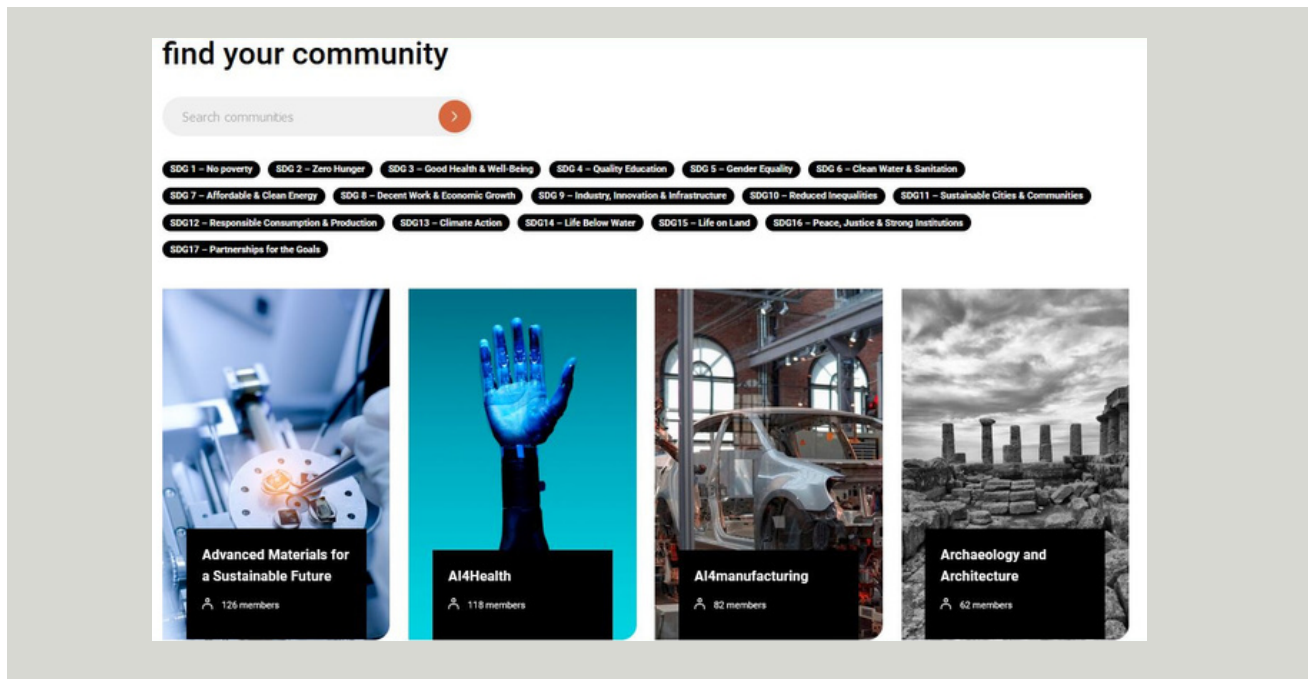
KEY FIGURES

✓ **45 active EELISA Communities**

✓ **Over 1.300 platform users / community members**

✓ **Roughly 300 activities published in the platform**

✓ **Involement in the EELISA Communities offer access to the "*EELISA Credentials*"**

✓ **Over 2.000 students have already enrolled in this unique recognition system.**

✓ **Some activities:**
Think tanks on sustainability
Seminars on Design Thinking
Conferences on Open Science
International seminars on urban mobility
Seasonal Schools on circular economy

✓ **783.000 euros offered to support EELISA Communities' activities through EELISA joint Call 2022 and EELISA Joint call 2023.**

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5.2. EELISA INNOCORE

Developed in response to the call **"Support for the Research and Innovation Dimension of European Universities"** found within Horizon 2020's program "Science with and for Society", **EELISA INNOvation and COmmon REsearch Strategy (InnoCORE)** is the research and innovation wing of EELISA.

Based on EELISA ecosystem, its Communities and the challenges identified therein, InnoCORE is intended to delve deeper into the institutional transformation initiated by the Alliance, by focusing on its R+I dimension.

EELISA InnoCORE aims to transform the Research & Innovation dimension of EELISA by:

1) Connecting researchers, innovators and non-academic stakeholders, and setting up a portfolio of shared scientific infrastructures;

2) Fostering and supporting the development of joint R&I actions and the creation of new structures (research groups, clusters, joint labs, start-ups, scientific parks);

3) Optimizing the outreach and impact of these actions.

EELISA InnoCORE will also explore and work on cross-cutting issues of research: defining a common open science strategy and a gender equality plan, and analysing the cost-benefits and barriers hampering cooperation.

▶ READ ABOUT EELISA InnoCore Kick-off **HERE**

Mapping R & I strategies

Connecting Researchers, Innovators and Stakeholders

Networking Platform

Joint research projects / structures

Enabling Joint Research, Projects and R & I Structures

Multi Lab (shared R & I Facilities)

Extensive Network of R & I actors

Optimizing the Outreach of Joint Research

Connection with EELISA Communities

PARALLEL ACTIONS   **Gender balance plan**   **Open Science Strategy**

| Open Science | RRI | Evaluation | Communication | Identification of barriers |

Recommendations for policy markers   **Connection with other European Universities**

▶ Learn more **https://eelisa.eu/eelisa-innocore-2/**

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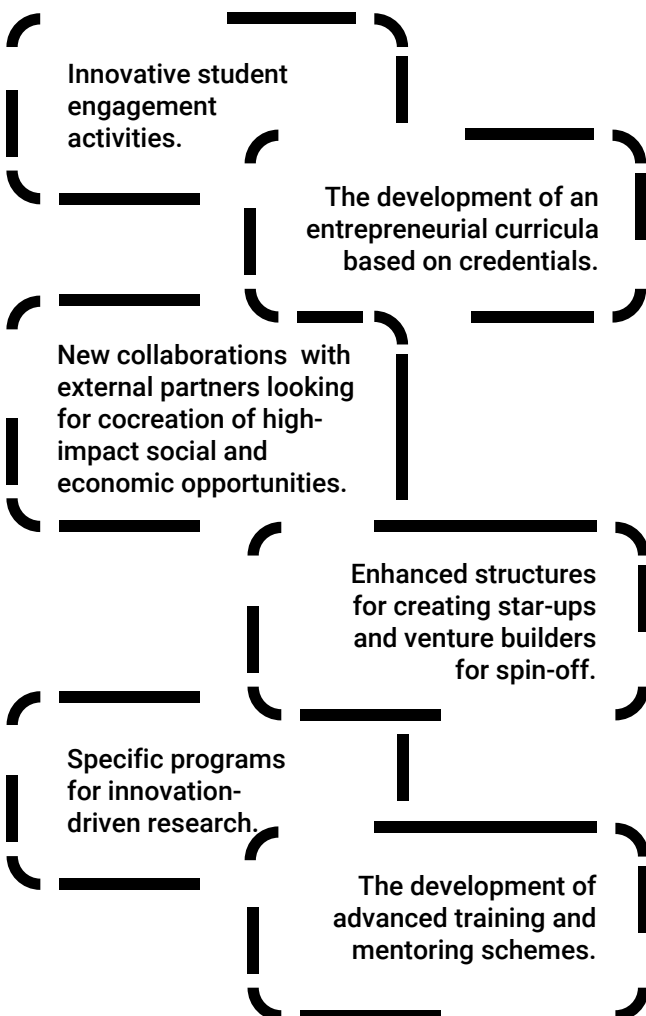Erasmus+ Programme
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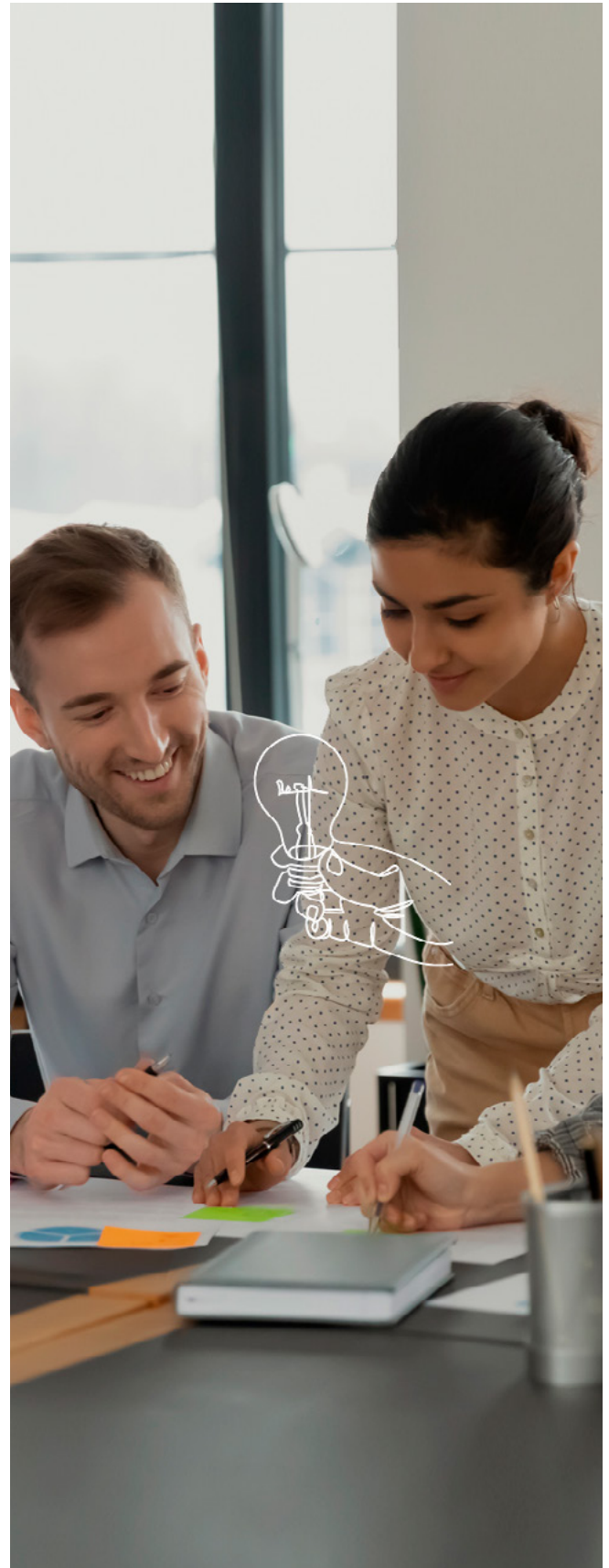European University

5.3. EELISA UNFOLDS

Unlocking Full innOvation capacity buiLDing and entrepreneurship (EELISA Unfolds) is focused on the I of EELISA as this letter stands for an Innovation Alliance. This component of EELISA is set to contribute to the transformation of higher education institutions into key players of the entrepreneurial and innovation ecosystem.

Students, academics, researchers, staff and key industry players,such as start- ups, will be invited to engage in:

Innovative student engagement activities.

The development of an entrepreneurial curricula based on credentials.

New collaborations with external partners looking for cocreation of high-impact social and economic opportunities.

Enhanced structures for creating star-ups and venture builders for spin-off.

Specific programs for innovation-driven research.

The development of advanced training and mentoring schemes.

This initiative is led by EELISA members: UPM, ENPC, FAU, SNS, SSSA, UPB, and associated partners (ARTES4.0 and Fundación Universidad Empresa)

Learn more: **https://eelisa.eu/eelisa-unfolds-2/**

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5.4 EELISA Recognition Offers

EELISA will lead to a single European cross-border accreditation that links academic excellence to social/enviromental impact – a global model that will bring European engineering, and therefore European higher education as a whole, to the world stage.

EELISA Credential

It will be awarded mainly through a student portfolio and interviews with peers and tutors about his/her choices on how to get involved in the community, how to be useful in contributing to solving the challenges and how to make any interactions meaningful in defining his/her identity as a professional and as a European citizen.
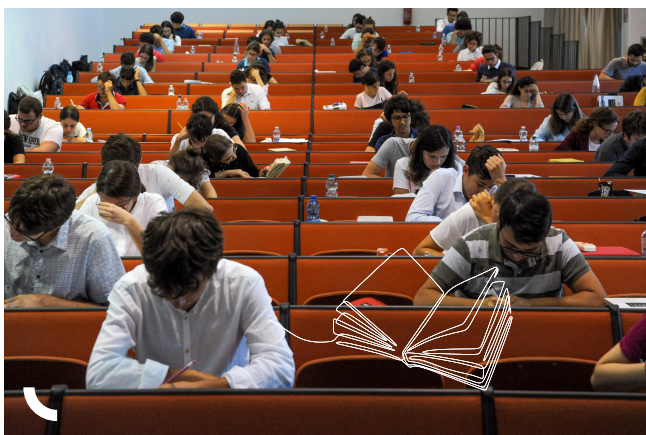
EELISA Supplement

It will be granted to any student who, in addition to his/her Degree and to the EELISA Credential, have earned at least 6 ECTS credits per year through physical (and digital) mobility with other partners in the alliance.

EELISA Recognition

It will be based on a common internal quality assurance mechanism that will set the mark of what the new European Engineers are – professionals ready to tackle global challenges and work within interdisciplinary, multilingual, diverse and pan-European environments.

5.5. The EELISA Credential

The EELISA Credential is a **recognition of the engagement and impact** linked to the **Sustainable Development Goals (SDGs)** achieved by participants in the mission-driven activities organized by the EELISA Communities**.**

Signed by the EELISA President on behalf of the nine Rectors, Directors, and President of the EELISA partner institutions, the EELISA Credential is a unique recognition system that aims to become a benchmark for public institutions, companies, and civil society organizations when looking for **committed professionals ready to transform knowledge into action.**

EELISA President, Mr. Dale Martin, hands an EELISA Credential to EELISA student Flavius Dragoi during the EELISA Achievements Celebration Event in Budapest (September, 2022)

Learn more: https://eelisa.eu/eelisa-credential/
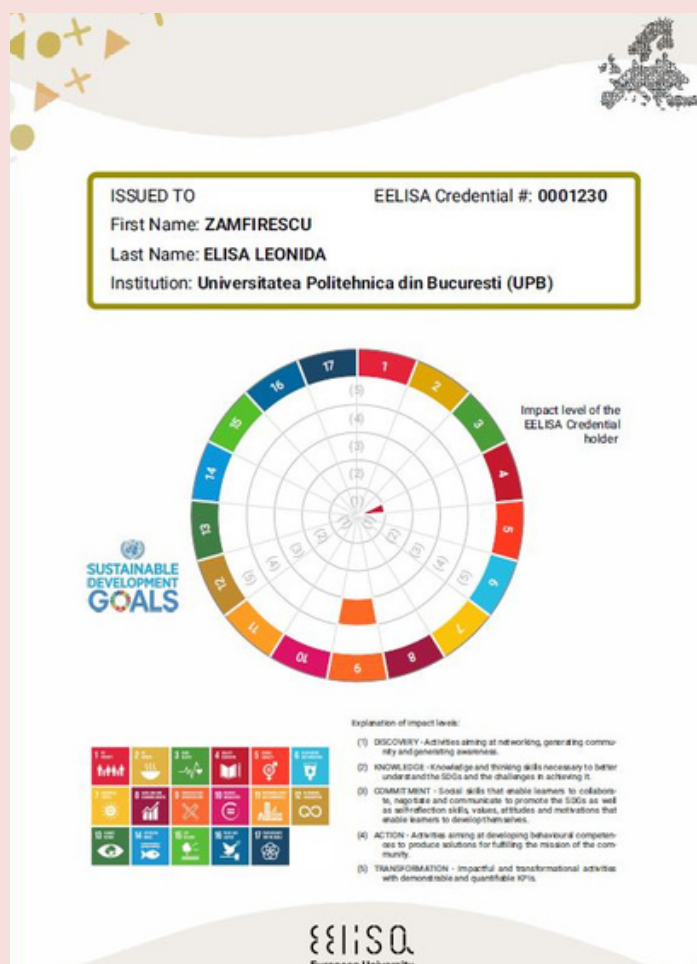
Watch testimonies of EELISA Credentials awardees here

6. HOW TO GET INVOLVED

▶ Deep dive into EELISA in a few clicks:
https://eelisa.eu/the-european-engineer/

▶ Read the EELISA Gender and Equality Statement:
https://tinyurl.com/3asjpp5u

▶ Download the European Universities Factsheet: **https://tinyurl.com/ab9z5e4f**

▶ Access communication materials to spread the word about EELISA: **https://tinyurl.com/4yav7tvn**

▶ Keep track of EELISA calls, workshops and activities: **https://eelisa.eu/get-involved/**

▶ Check the EELISA Calendar of events and add them to your own here:
https://eelisa.eu/news-events/

▶ Find out what time it is in each institution: **https://tinyurl.com/4hm2h5k9**

▶ Send us an e-mail to **info@eelisa.eu**

▶ Subscribe to the EELISA newsletter:
https://tinyurl.com/452hjah7

▶ Find videos linked to our activities, communities and events: ▶

▶ Take a look at our photo gallery: 📷

▶ Follow us on Social Media: 🐦 in 📷

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#Connect2EELISA

as a collaborator

In a fast-changing world with the increased complexity of the challenges faced, **multidisciplinary and multistakeholder approaches** are essential to building optimal solutions in a systemic way.

Whether you are a **corporation, SME or start-up, public institution, NGO or grassroots organisation**, EELISA offers you the opportunity to:

Access a pool of well-trained and deeply committed people: EELISA students

• Boost your team(s) by recruiting talented EELISA students with future-proof skills.

• Bring your human resources and/or volunteer teams to the next level with creative people who have followed innovative educational paths and who have experienced unprecedented knowledge exchange in multilingual, multicultural and multidisciplinary environments.

Have a direct access to a European network of universities of excellence

• Access new expanding markets and collaborative environments through EELISA's capacity to connect national and regional ecosystems at European scale.

• Access the established cooperation platform that is the EELISA European university: a driver for new capacity building and projects development at the European level.

Solve challenges through EELISA Communities

• Take part in the diverse and ever-expanding nodes where students, top-tier researchers, experts, business partners, public institutions, and civil society meet and work together to solve real-world challenges aligned with the United Nations' Sustainable Development Goals.

• Join the growing network of challenge-oriented innovators through the EELISA Communities and its EELISA Community Platform.

"The EELISA / Sustainable BCC think tank has been an outstanding and dynamic experience for myself and my team at the European Space Astronomy Centre.

We consider that these types of interactions and collaborations greatly assist in environmental consciousness improvement, and the cross-fertilisation between established professionals and the new blood just coming out from academia.

An excellent initiative and an innovative approach to working towards a better future for all!"

Panagiotis Machairas

EFM IT Systems & Digitalisation Unit, Head. Departmental PSSO. Corporate Services Division. Estates & Facilities Management Department. European Space Agency.

Learn more about the collaboration of the ESA and EELISA
https://eelisa.eu/eelisa-esa_sustainability_thinktank/

About the ESA: https://www.esa.int/

About EELISA Communities: https://community.eelisa.eu/

"Counting with the support of EELISA has helped us reach an international target of young college students, as well as teachers and experts on the field.

Thanks to them being by our side and collaborating with us, we have been given the chance of offering a filmmaker the opportunity to share their work in new spaces, bringing the impact of our actions to a wider extent of people.

We couldn't be more thankful. We hope we can soon repeat this experience again."

Marta García Larriu

President of Another Way Association and Dtor. of Another Way Film & Sustainability Festival of Madrid

Learn more about the collaboration of the AWFF and EELISA:
https://eelisa.eu/eelisa-loves-arts-campaign/

About the Another Way Association:
https://tinyurl.com/3r2db5je

Benefit from the prestige and recognition connected to a European University and expand your societal impact by connecting to its mission, vision and values.

• Connect your organisation to the **"European Universities initiative"** , one of the main EU flagship programs meant to lead the way to equitable green and digital transformations.

• Join the pioneering group of people set to transform higher education and society.

Access EELISA state-of-the art infrastructures and talents

• Access research infrastructures and talent for your innovation-driven research projects among EELISA institutions.

• Have early insights into new developments in various fields while taking advantage of mutually beneficial research activities through partnerships with EELISA higher education institutions.

• Co-design with EELISA innovative educational offers adapted to your needs of continuing education.

• Access lifelong learning and innovative teaching concepts and apply them to your team(s).

"By being associated with EELISA and its projects, Altametris can help shape the education of future engineers in Europe, which will have a significant impact on the quality of skills and knowledge of future graduates. This is leading to a pool of well-trained and qualified new hires for Altametris, meeting our recruitment needs for engineering skills and talent."

Guilhem Villemin

Tech Director of Altametrics (France) and partner of EELISA's Digital Twins Master

Learn more about the collaboration of Altmetrics and EELISA:
https://www.youtube.com/watch?v=w-X8OH8cmj0

About Altametrics:
www.altametrics.com

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