





Engineers for Europe (E4E) Project

Kick-off Meeting, ACE events, Brussels

22-23 September 2022

Mr Dirk BOCHAR, FEANI Secretary General







Welcome to the Engineers for Europe (E4E) Project Kick-off Meeting!









Day I







Overview of E4E Project – background and rationale

Consortium: 13 organisations from 8 EU countries

Duration: 36 months

Grant: EUR 1.5 million (FEANI : EUR 268k)

Donor: EU Commission, Programme Erasmus+

Score: 89/100 total score (25/25 for Relevance criterion)









Main Objectives

- 1. Setting Up a "European Engineering Professional Skills Council"
- 2. Identify "New Trends in Engineering Education"
- 3. Develop "Innovative Training" for the Profession







Engineers for Europe (E4E) Consortium



13 full partners; 12 associate partners







Engineers for Europe (E4E) Consortium: short presentations

- 1. Fédération Européenne d'Associations Nationales d'ingénieurs (FEANI)
- 2. Faculdade de Engenharia da Universidade do Porto (FEUP)
- 3. Technological University Dublin (TU Dublin)
- 4. Katholieke Universiteit Leuven (KU Leuven)
- 5. Association of European Civil Engineering Faculties (AECEF)
- 6. Newport Group S.A. (NG)
- 7. Institute of Industrial and Business Education & Training (IVEPE-SEV)
- 8. National Agency for Quality Assessment and Accreditation of Spain (ANECA)
- 9. Verein Deutscher Ingenieure (VDI)
- 10. Engineers Ireland (EI)
- 11. Ordem dos Engenheiros (OE)
- 12. Federation of European Heating, Ventilation and Air Conditioning associations (REHVA)
- 13. European Council of Engineers Chambers (ECEC)







FEANI: Fédération Européenne d'Associations Nationales d'ingénieurs

- A federation of professional engineers that unites national engineering associations from 33 European Higher Education Area (EHEA) countries, representing the interests of over 6 million professional engineers
- Striving for a single voice for the engineering profession in Europe affirming and developing the professional identity of engineers
- Facilitating the mutual recognition of engineering qualifications in Europe and strengthening the position, role and responsibility of engineers in society







FEANI: Fédération Européenne d'Associations Nationales d'ingénieurs

- FEANI is a founding member of the World Federation of Engineering Organisations (WFEO) and collaborates with many other organisations dealing with engineering and technology issues and engineering education.
- FEANI is officially recognised by the European Commission as representing the engineering profession in Europe. The federation also has consultative status with UNESCO, UNIDO and the Council of Europe.







FEANI: Fédération Européenne d'Associations Nationales d'ingénieurs

FEANI Committees and Working Groups:

- Executive Board (ExBo)
- European Monitoring Committee (EMC)
- National Monitoring Committee (NMC)
- WG Future Engineers (ex WG STEM)
- WG SDGs
- Engineers Europe Advisory Group (EEAG)







FEANI: Fédération Européenne d'Associations Nationales d'ingénieurs

FEANI Products:

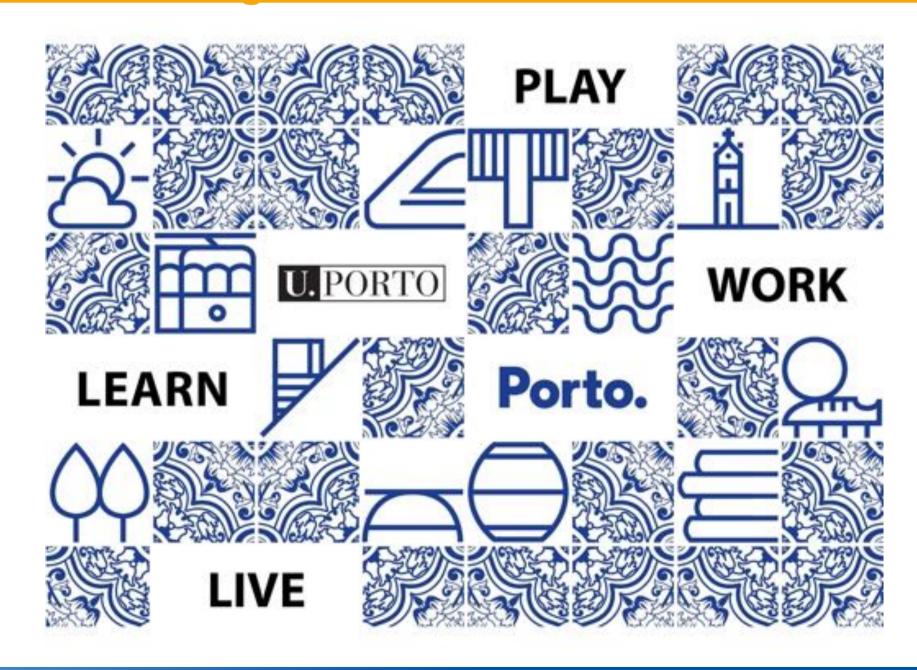
- EUR ING 2.0 (1 January 2023)
- European Engineering Education Database (EEED)







Faculdade de Engenharia da Universidade do Porto (FEUP)

































FEUP TALENT HUB

629 faculty, 351 research, 263 staff

2300 new recruits / year

~8.000 students
33% women
50% postgraduate
20% international

1200 graduates / year

30.000 connected alumni 15% abroad









FEUP UNDERGRADUATE STUDIES

- Bioengineering
- Civil Engineering
- Materials Engineering
- Mining and Geo-Environmental Engineering
- Environmental Engineering
- Industrial Engineering and Management
- Electrical and Computer Engineering
- Engineering Physics
- Informatics and Computing Engineering
- Mechanical Engineering
- Chemical Engineering
- Artificial Intelligence and Data Science
- Information Science
- Communication Sciences





2021/2022: 14 Bach. programs 5.749 students

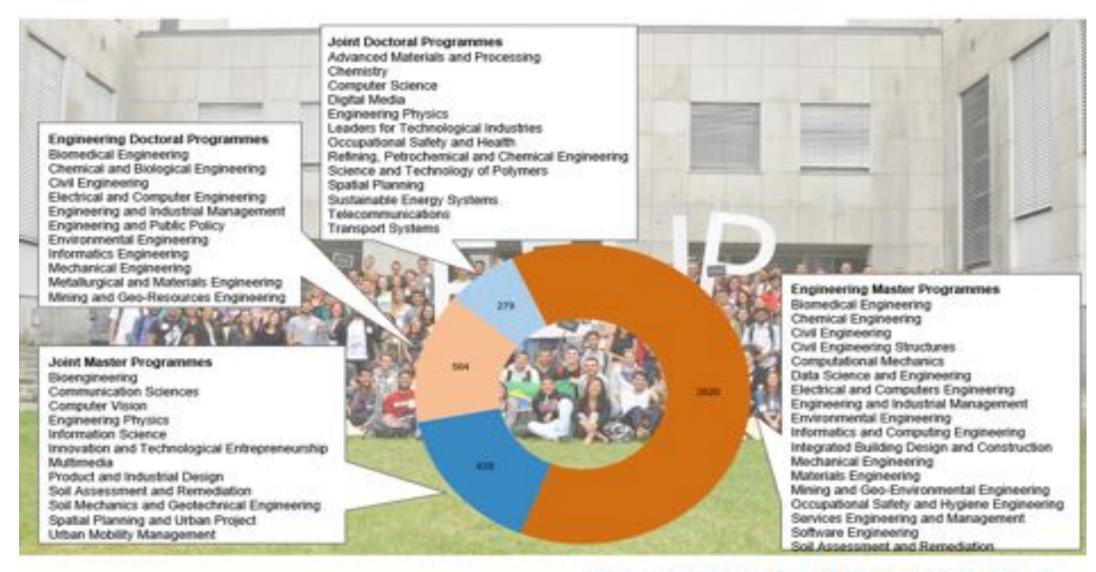






This project is funded by the European Union.

FEUP POSTGRADUATE STUDIES





Programs: 30 MsC + 23 PhD Students: 3.721 + 1.316









LEA - Teaching and Learning Laboratory

PROFESSIONAL DEVELOPMENT AND SUPPORT

Academics professional development, Pedagogical needs assessment and training, Classes observation, Transferable skills programs management

PEDAGOGICAL INNOVATION

Studies, Projects, Interinstitutional 'Good Practices' sharing, (inter)national Networks, 'Good Practices' dissemination

DOCTORAL EDUCATION

'Good Practices' benchmark and implementation, Curricular remodeling of PhD programs, Transferable Skills, Onboarding and Career planning, Doctoral Congress in Engineering







This project is funded by the European Union.

Project no. 101054872

Projects and Studies



Vincere - micro-videos production to support learning in engineering topics



De Par em Par - Peer Observation of classes



PEP-UP – Enhance doctoral programs by collaborating with employers to foster Transferable Skills



Using data mining to predict students' academic success



INVENTHEI mentoring and training programs (education pillar), guide them towards research (innovation pillar), and promote collaboration and exchange programs between industry, research and academia (business pillar).



E4E – Engineers for Europe to prepare better equipped engineers through the acquisition of new competences, covering new knowledge, attitudes and leadership skills while focusing on digital, green, resilient and innovative entrepreneurship.

DocTalent4EU - enhance PhD employability through recognition-system of the most in demand transferable skills (ESCO framework) that early-career researchers (ECRs) acquire through their doctoral training and research activities.







Laboratório de Ensino e Aprendizagem Faculdade de Engenharia Universidade do Porto Porto (Portugal)

João Pedro Pêgo (coord.) Ana Freitas

http://fe.up.pt/lea lea@fe.up.pt





















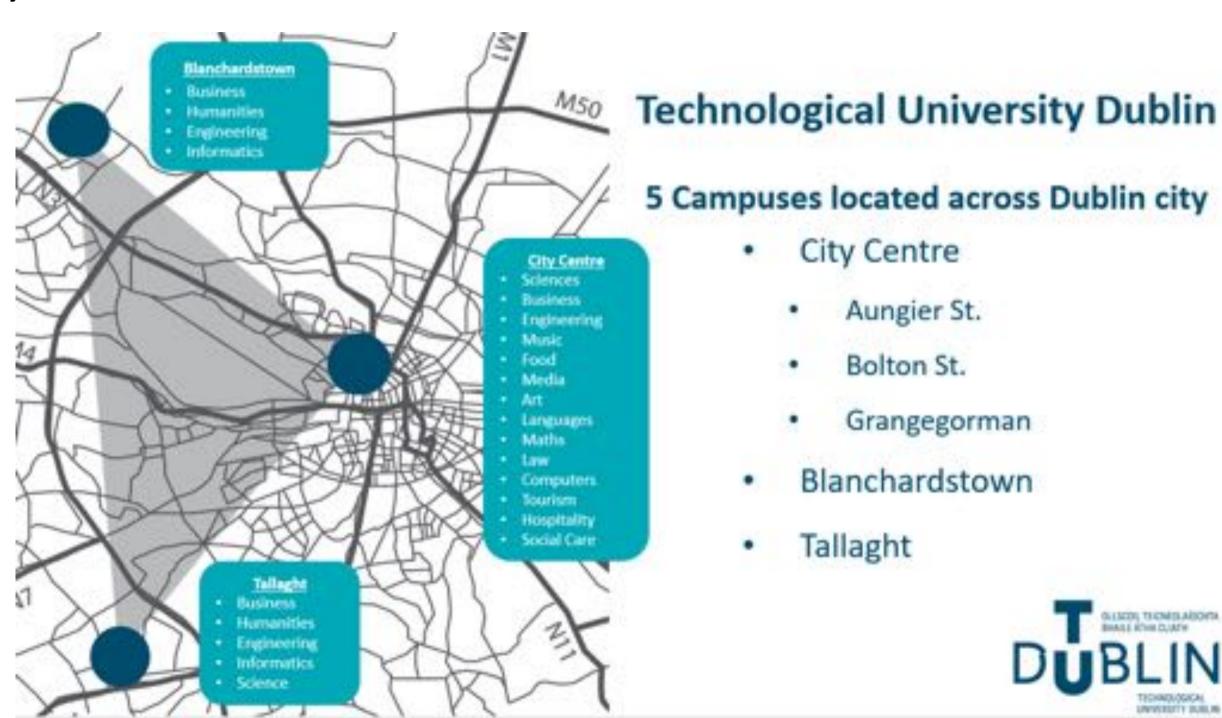
TU Dublin, Ireland's first Technological University, is where career-focused students, dedicated staff and academic excellence in science, the arts, business, engineering and technology converge to create the leaders and practitioners of tomorrow.











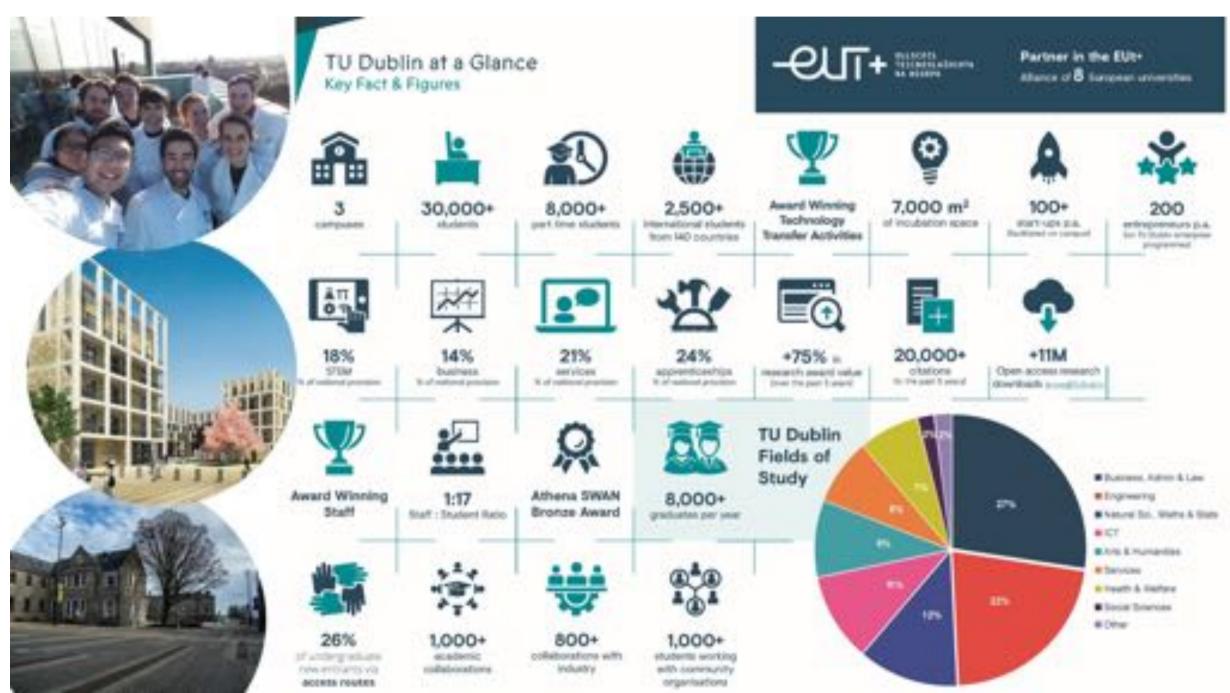






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Project no. 101054872

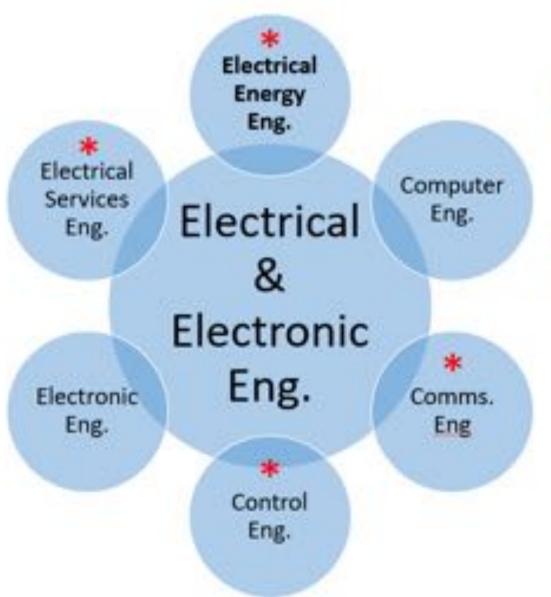








The School of Electrical & Electronic Engineering



- Multi-campus
- Programme offerings (L6-L10)
 - *Apprenticeships
- Research
- Partnerships



















A highly ranked university

#1

in the **Reuters** World Ranking of Most Innovative Universities in Europe

#42

in the **Times Higher Education**World University Ranking

#70

in the QS World University Ranking

#6 ranked university in the European Commission Horizon 2020 programme (HEI only)

#14 ranked university in the **ERC** grants programme with over 110 projects (HEI only)

*Last updated: July 2021









Europe's most innovative university

REUTERS Ranking of Most Innovative Universities in Europe

- 1. KU Leuven
- 2. University of Erlangen Nuremberg
- 3. Imperial College London
- 4. University of Cambridge
- 5. EPFL
- 6. University College London
- 7. Technical University of Munich
- 8. University of Manchester
- 9. University of Zürich
- 10. Swiss Federal Institute of Technology Zurich

REUTERS Ranking of Most Innovative Universities in the world

- 1. Stanford
- 2. MIT
- 3. Harvard
- 4. University of Pennsylvania
- 5. University of Washington
- 6. University of North Carolina Chapel Hill
- 7. KU Leuven
- 8. University of Southern California
- 9. Cornell University
- 10. Imperial College London







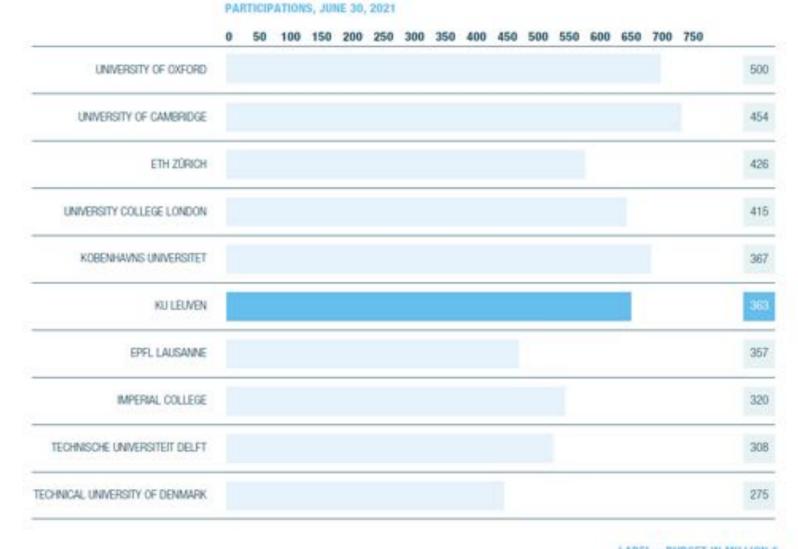


Research excellence

KU LEUVEN: A LEADING EUROPEAN RESEARCH UNIVERSITY

TOP 10 HIGHER EDUCATION INSTITUTIONS

based on number of Horizon 2020 projects



LABEL = BUDGET IN MILLION €









KU Leuven in numbers











TAT GOOD AN JUST

(UNIVERSITY HOSPITALS)









A comprehensive university



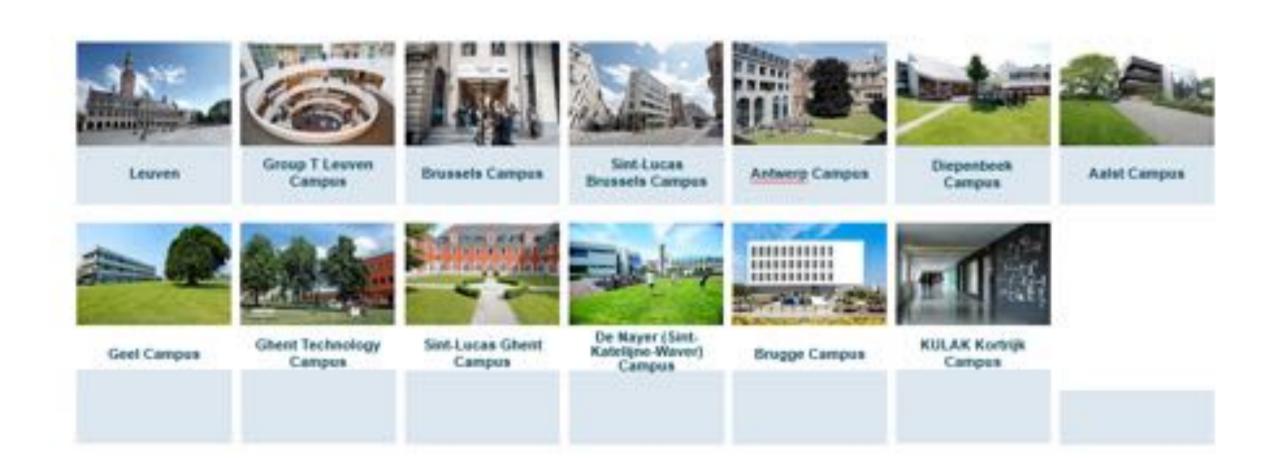








13 campuses at 10 locations











AECEF - Association of European Civil Engineering Faculties

- Funded in 1993
- Individual and institutional members
- A symposium every 2 years
- Education and research
- www.aecef.net







Our Experience

Education and preparation for the labour market

- retraining of the unemployed
- retraining of employees

Further training of employees

- competence development
- management development programs

Introduction of a dual education system

- At the existing vocational schools (project of the Dual Academy with Volkswagen Slovakia)
- into the training programs for lifelong learning







Our Experience

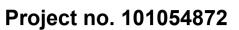
Advisory and consultancy services

- representation of clients in the accreditation process (secondary school education programs, lifelong learning, further education of teachers and trainers)
- representation of clients in administrative proceedings in the field of education (establishment of new institutions (secondary schools and universities), transformation of existing institutions (secondary schools), licensing of foreign institutions (universities)

Legislative process

 active participation in the legislative process in the preparation of new legislation on vocational education and training (Act No. 61/2015 Coll. on Vocational Education and Training and implementing regulations)









Our Experience

Fundraising activities

- National and grant schemes of the EU
- We realize projects for our clients starting with initial consultancy, through the development of a grant project, project management, to assistance in administrative activities in the form of project service.

Project management

- According to PRINCE 2 norms / standards
- Implementation of ISO9001 (Quality Management System) and ISO10006? (Quality Management Systems in Projects)









European Projects Office

































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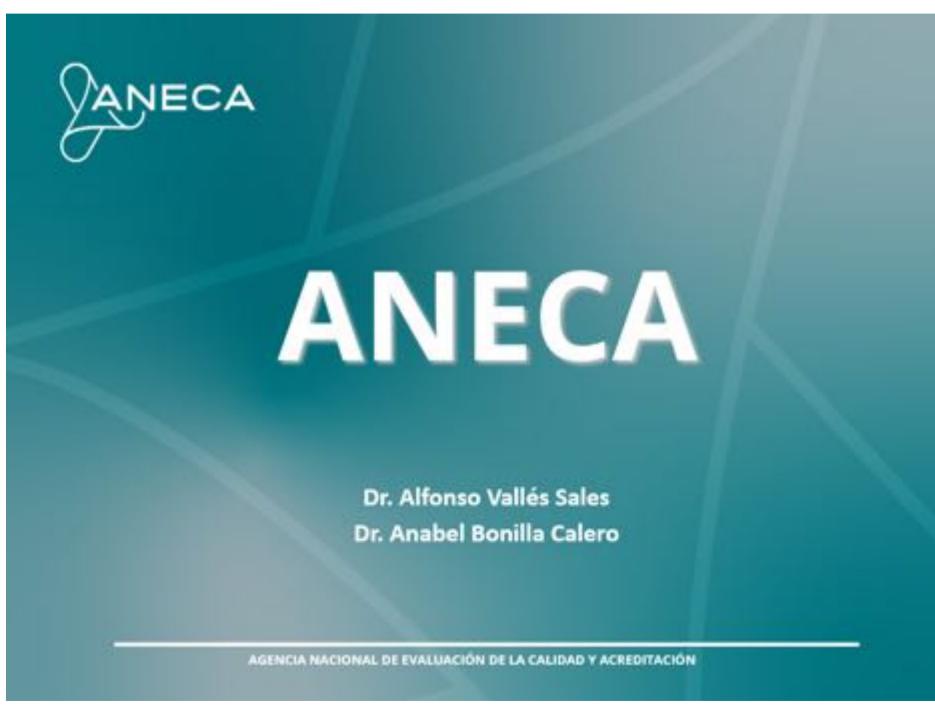


















This project is funded by the European Union.

context, in a established in

In Spain, the Organic Law on Universities of 2001 creates the National Agency for Quality Assessment and Accreditation (ANECA) as a public institution responsible for promoting and ensuring the quality of higher education, and particularly of Spanish universities, in the international context, in accordance with the criteria and guidelines for action established in the European Higher Education Area.

ANECA is recognised by the European Register Quality Assurance (EQAR),



ANECA is part of the major networks of Quality Assurance in Higher Education at European (ENQA), Ibero-American (SIACES) and Worldwide (INQAAHE).







ANECA

INTERNATION

AL

DIMENSION



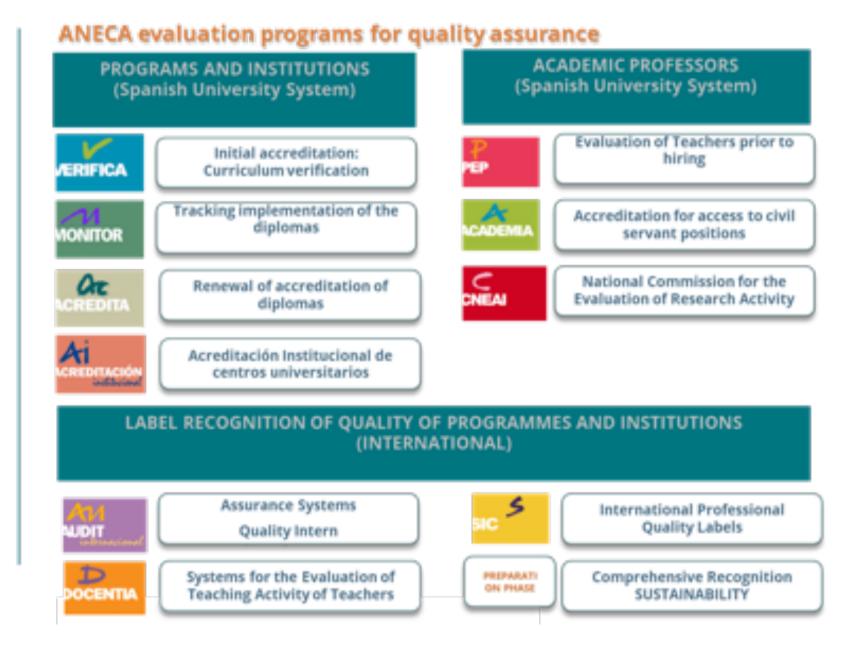




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ANECA INTERNATIONAL DIMENSION





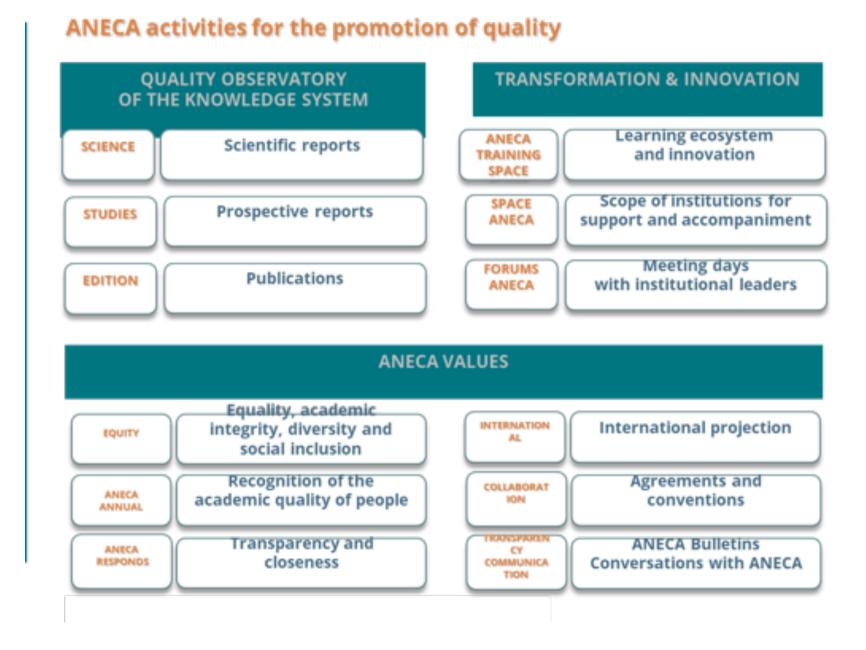


ENGINEERS 4 EUROPE

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ANECA INTERNATIONAL DIMENSION









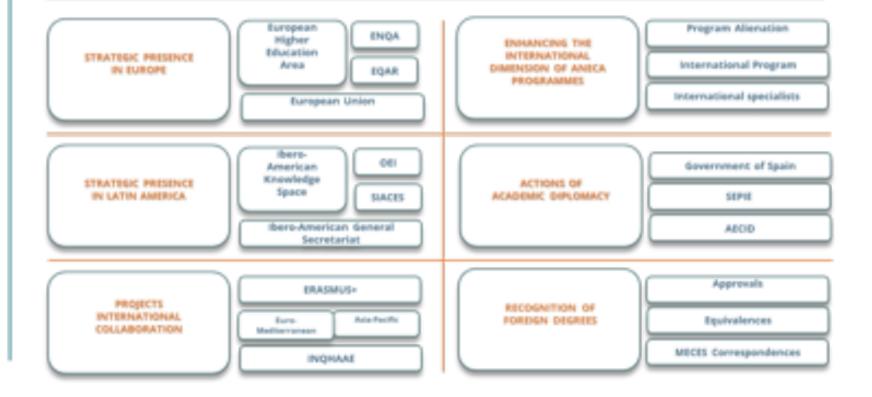
This project is funded by the European Union.



ANECA INTERNATIONAL DIMENSION

ANECA Internationalization Commission

ANECA's Internationalization Commission's mission is to promote the international positioning of the Agency, through its involvement in quality assurance in different regions of the world, its active collaboration with international organizations, the promotion of projects and actions of academic diplomacy and the development of programs for the recognition of foreign university degrees.









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EXCELLENCE AND SUSTAINABILITY:
ANECA'S
INTERNATIONAL
QUALITY LABELS

The ANECA International Quality Labels recognize the excellence of higher education institutions in certain areas and dimensions of their teaching, research, transfer, management, equity and sustainability mission, in accordance with the strategic interests decided by each institution.

The evaluation criteria and guidelines to achieve a certain ANECA International Quality Label are defined in collaboration with entities of international reference in the field and dimension of the recognition.

They are aligned with the requirements established in ANECA's accreditation programs, to avoid "evaluating pressure".

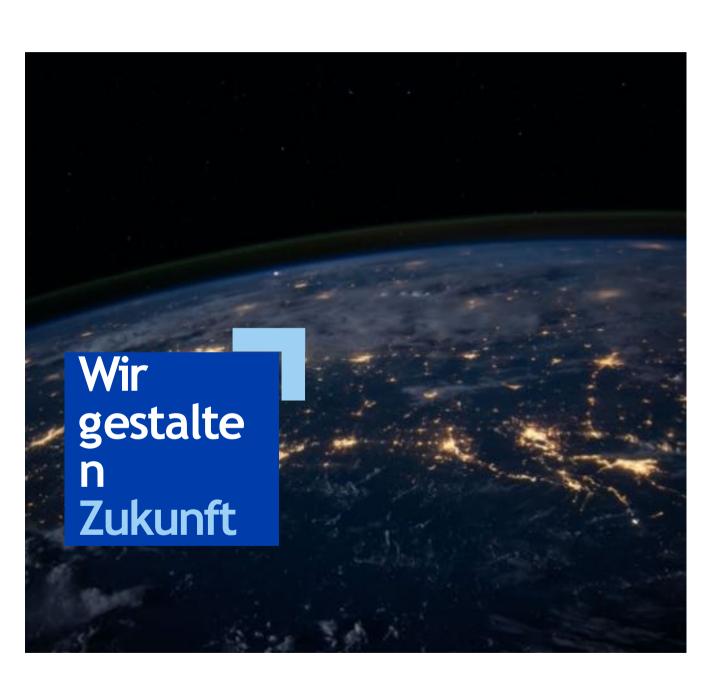
They are cumulative, in a modular structure that allows to achieve the Integral Recognition of Quality

In the field of the Sustainable Development Goals (SDGs), a dimension to be recognized is development cooperation to achieve Quality Education (SDG 4) & Alliances and Networks (SDG 17)











The Association of German Engineers





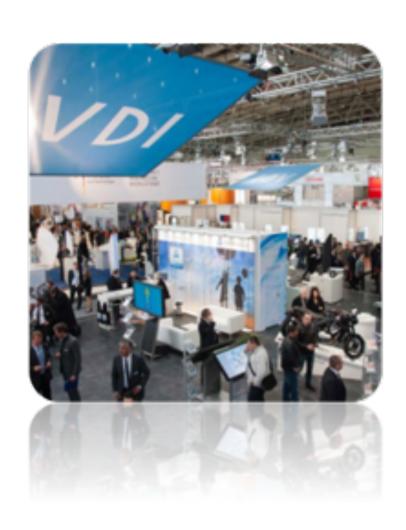




Introduction VDI

Largest engineering association in Germany

- approx. 135,000 personal members
- around 12,000 honorary experts
- approx. 120
 employees at VDI HQ









VDI is...



- facilitator and driver of the development and use of innovative future technology.
- one of the largest networks of engineering and technology in Europe.
- the largest technical-scientific association in Germany.
- the voice of engineering and technology towards society, politics, and business.
- multiplier of the latest engineering knowledge.
- facilitator of sustainable and future-oriented technology.
- third-largest technical standardisation organisation in Germany.
- well-known partner of engineers and natural scientists.

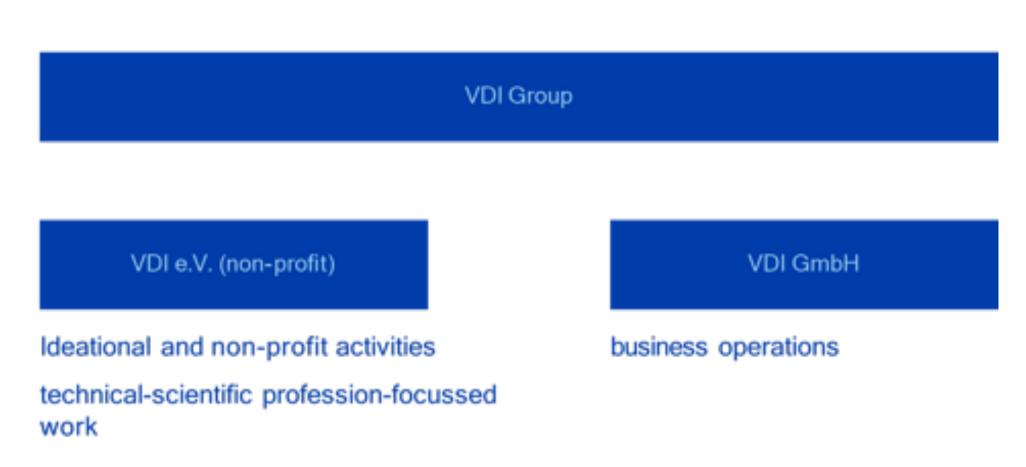








VDI Group











"We are the professional body for engineers in Ireland since 1835"

- Represent + 25,000 Members
- Award Registered Professional Titles
- Accreditation Body
- CPD Training
- Competent Authority (EU Dir 2005/36)











E4E Participants

- Mr Damien Owens, Registrar
- Ms Dee Kehoe; Director; CPD
- Dr Darren Carthy, CPD Executive

Previous EU Projects

- Leonardo (lifelong learning)
- Prefer (graduate development)









CPD

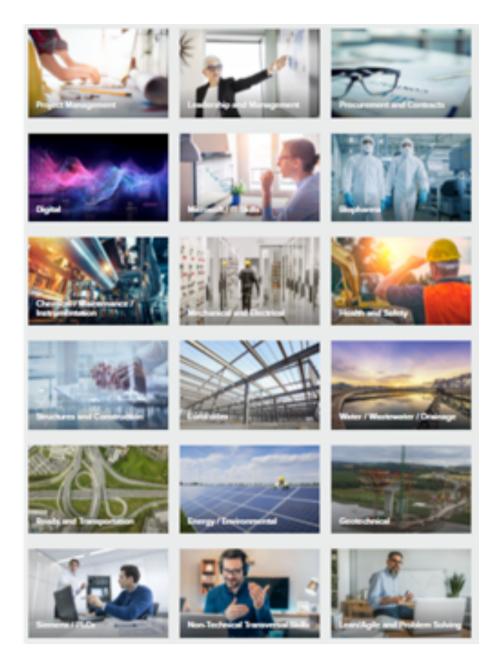
Training

With training across soft skill topics and technical engineering topics, the CPD team delivers over 160 courses annually. The core programme of CPD courses are designed to ensure maintenance of professional competence:

- The principles and practices of sustainability and the UN Sustainable Development Goals (SDGs) are embedded in programme development.
- Online delivery is prioritised.
- Course programme is informed by research and member engagement.

Deliver most of our public courses exclusively to in-company teams offering clients the advantage of ensuring CPD is directly relevant to the strategy, policies and/or practices of their organisation.

Identify and map the training gaps of our members and develop new technical training courses across all engineering disciplines. Run approximately 10 seminars annually accommodating up to 120 delegates per event











CPD

Training

The Future Professional Series offers structured advancement to graduates through strands of intense and challenging professional development, all of which are accredited by TU Dublin at Level 9.

The Fast Track Series is designed to allow high-potential technical staff with apprentice and craftsperson skills to develop a range of non-technical skills which are vital for career advancement (Level 6 accredited, 5 ECTS, 5 month duration)

The Engineers Ireland Register of Training Providers supplements the core CPD programme provided directly by Engineers Ireland. The Register identifies further relevant and high-standard learning opportunities offered by external providers











This project is funded by the European Union.





The Engineers Ireland Continuing Professional Development (CPD) Accredited Employer Standard is promoted amongst engineering-led organisations and assists them with attracting and retaining talent and carving out a competitive advantage. Organisations also use the standard as a hallmark of quality when tendering for projects.

Our CPD Accredited Employer standard provides a framework for employers to make better choice's regarding learning and development initiatives in their organisations. There are currently 113 organisations awarded with the standard.

Engineers Ireland also offer an in-company, expert strategy mentoring programme for professional development, designed for delivering tangible results. This award winning programme has been designed for relevance to the Engineering sector and to be applicable to the roles and responsibilities contained in Engineering companies.









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Project no. 101054872



CPD Accreditation

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ORDEM DOS ENGENHEIROS
PORTUGUESE ENGINEERS ASSOCIATION

Origin and Focus

Main Mission

Organization

Strategic
Guiding Principles

Created in 1936 (celebrates 86 years in 2022), the Ordem dos Engenheiros de Portugal / Portuguese Engineers Association (OEP) has as its main objectives:

- Access control to the professional engineers activity and practice in Portugal;
- Assure the quality, promotion and progress of engineering;
- Encourage efforts of its members in scientific, professional and social skills;
- Preservation of ethics and deontological behaviour, valorisation and professional qualifications of engineers.









ORDEM DOS ENGENHEIROS
PORTUGUESE ENGINEERS ASSOCIATION

Origin and Focus Main Mission Organization Strategic Guiding Principles

12 COLLEGES

- Agronomical
- Chemical and Biological
- Civil
- Computer
- Electrotechnical
- Environmental
- Forestall
- Geographical
- Geological and Mines
- Materials
- Mechanical
- Naval

24 SPECIALIZATIONS

- Administration and Management of Construction
- Structures
- Hydraulics and Water Resources
- · Planning and Land Management.
- Construction Safety
- fluminotechnics
- · Telecommunications
- · Engineering Assessments
- Energy
- Acoustic Engineering
- · Aeronautic Engineering
- Food Engineering.
- Air-Conditioning
- Refrigeration
- Safety Engineering
- Engineering and Industrial Management
- Sanitary Engineering.
- · Textile Engineering
- Geotechnics
- Industrial Maintenance
- Metrology
- Geographical Information Systems
- Transport and Communications Infrastructure

















ORDEM DOS ENGENHEIROS
PORTUGUESE ENGINEERS ASSOCIATION

Within the Strategic Guiding Principles approved by the current leadership, the first is the Contribution To Society:

- Creation of a National Engineering Award;
- Creation of App to maximize interaction with members;
- Create a quarterly BAROMETER for opinion collection of the members of OEP, through sample survey;
- Develop an OBSERVATORY that gathers continuous statistical information for dissemination to members;
- Develop PIE INTERACTIVE ENGINEERING PLATFORM that allows the intervention in the national territory;
- · Organization of Open Presidencies;
- Creation the television of the Ordem dos Engenheiros.

Strategic

Guiding Principles

















REHVA- Partner Profile

Sofia Bazzano- EU Project Officer

Anita Derjanecz- Managing Director









REHVA mission and strategic activities

- ✓ Advocating health, comfort, and energy efficiency in all buildings and communities
- ✓ Promoting healthy, energy-efficient, and cost-effective technologies, and high-quality HVAC engineering practice
- ✓ Serving its members by facilitating knowledge exchange, and supporting the development of related EU policies and their national implementation
- ✓ Having an impact on EPBD-related national and international strategic planning and research initiatives, and on related education and training programmes
- ✓ Promoting European engineering knowledge, HVAC technologies, and European standards at a global scale
- ✓ Supporting the education of young HVAC engineers and the continuous professional development of building service practitioners
- ✓ Acting as the single voice of European building service engineers









Partner Profile- REHVA

REHVA = Federation of European Heating, Ventilation and Air Conditioning Associations is a professional organisation

- √ founded in 1963
- ✓ representing 120.000+ building services engineers.
- √ from 26 countries



REHVA activity fields:

Strengthening the REHVA network

- EU LEVEL: policy advocacy & policy intelligence, harmonised MS implementation & standardisation
- ✓ WITHIN EUROPE: collaboration among REHVA member associations & building services / construction industry
 - EU Research and innovation projects
 - Knowledge exchange, capacity building
 - Education & life-long learning (Education and Training committee)
- ✓ BEYOND EUROPE: collaboration and dissemination of EU
 HVAC culture at global level







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Project no. 101054872



REHVA mission and strategic activities

- ✓ REHVA Newsletter (4069 recipients)
- ✓ Supporters Bulletin
- ✓ REHVA website
- ✓ Social media REHVA Energy professionals (2300+ members).
- ✓ REHVA Guidebooks available in the REHVA online bookstore.
- REHVA Journal, free, 6 issues per year, available online or in paper copy
- Online Multilingual HVAC Dictionary (20 languages) and glossary
- ✓ Live seminars, courses and workshops during events
- Online training and webinars



















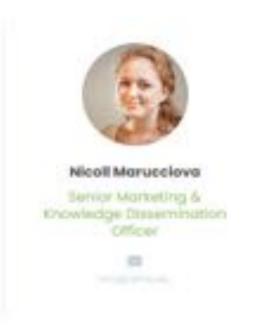


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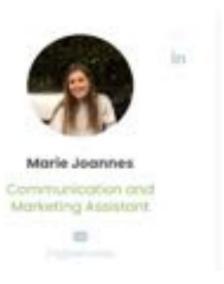
E4E Staff

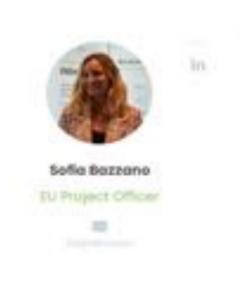






















European Council of Engineers Chambers (ECEC)

- The ECEC is the umbrella organization of European Engineers Chambers. It represents the professional interest of Chartered Engineers on European level
- Its members are national Chambers or other legally established public bodies representing authorized Chartered Engineers.
 Currently the ECEC represents 16 Chambers and over 300.000 highly qualified European Chartered Engineers who are members in these Chambers.









ECEC's competence for E4E

- As representative organization of Engineers Chambers the ECEC is involved in educational as well as professional requirements of the profession. Its members are either competent authorities of professional access in their countries or are in close cooperation with them
- In 2016/2017 the European Commission (Directorate-General for Internal Market, Industry; Entrepreneurship and SMEs) has contracted ECEC to develop proposals for Common Training Principles for Engineers covering all EEA countries. Although it was not possible to reach a common agreement during the project time, the project produced a lot of important information on Engineering Education and Regulation in Europe





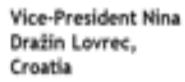




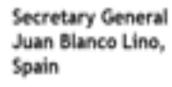
Executive Board

President Klaus Thürriedl, Austria

Vice-President Hubertus Brauer, Germany



Vice-President Roberto Orvieto, Italy



Treasurer Gabor Szöllössy, Hungary



















Structure of the E4E Project Overview of Work Packages

Erasmus+







The Challenge

- 1) Shortage of engineers in EU
- 2) Lack of reliable data about the profession's dynamics and trends
- 3) Skill polarisation / transversal skills for multidisciplinarity
- 4) distance between the world of education and the world of work
- 5) Lack of integration among HE, VET and Industry
- 6) Widening skill mismatch
- 7) Global competitive pressures







Who says...apart from us...

- "Analysis of Shortage and Surplus Occupations 2020" EU Commission
- Skills Panorama of Cedefop 2019, "Science & engineering technicians: skills opportunities and challenges"
- "Global Engineering Capability Review", 2021
- "Engineering for Sustainable Development" UNESCO, Engineering Report 2021







E4E solutions

- 1. Establish the EU Engineering Skills Council
- 2. Design a monitoring methodology to monitor the profession and develop the Engineering Skills Strategy
- 3. Develop and deliver the E4E Curriculum (transversal skills)







E4E in numbers

13 Partners

8 Countries

36 Months

6 Work Packages

22 Tasks

1.5 Million €

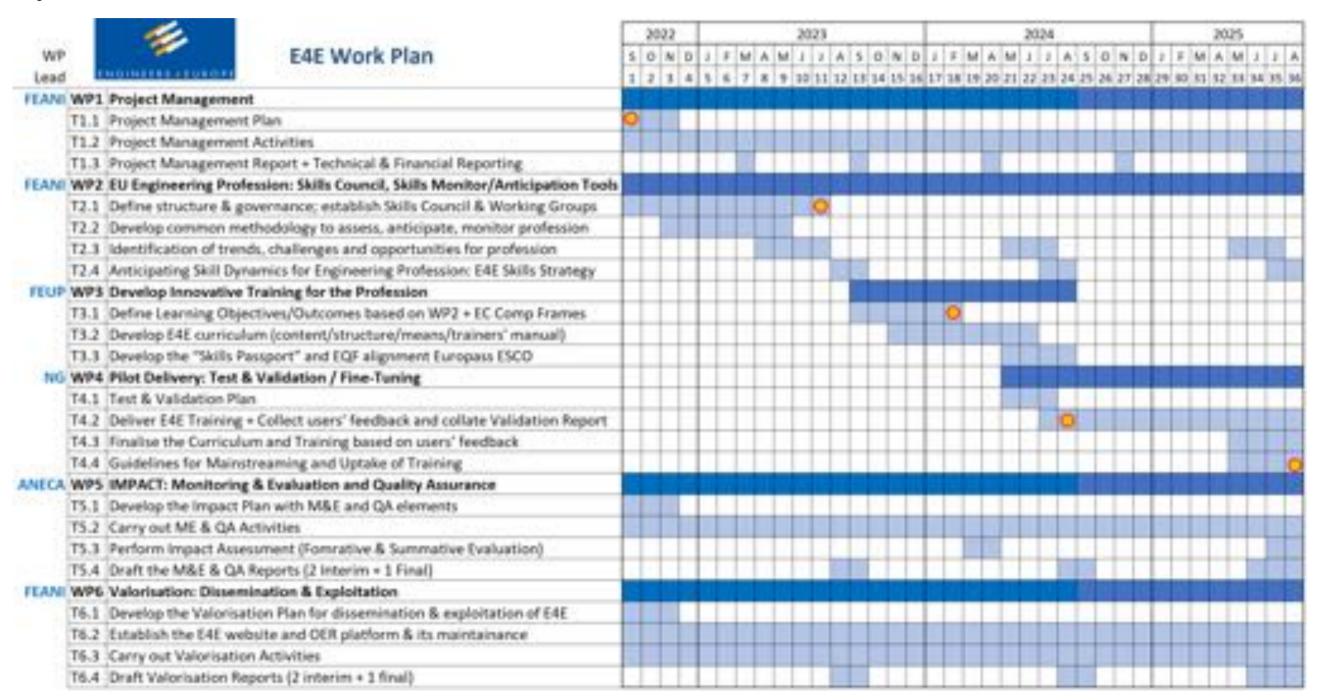






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WP1: Project Management

Start: M1 Sep. 2022 End: M36 Aug. 2025

T1.1 Develop Project Management Plan

T1.2 Project Management Activities

T1.3 Reporting

Technical and financial reporting every 6 months







WP1 deliverables and timeline

D1.1 E4E Project Implementation Plan M3

D1.2 Interim Reports

M7 31/03/2023

M13 30/09/2023

M20 30/04/2024

M27 30/11/2024

D1.3 Meeting Reports

D1.4 Final Report

M36 31/08/22025

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WP		E4E Work Plan	5	0	N	D.	1 8	M	A	M J	1	A. 5	0	N D	1	FA	A N	м	1 1	A.	5 0	N	D	3 1	F	A b	1 3	J A
Lead	ENGINEERS REUROPE		1	2	3	4 3	5 (7	8	9 1	0 11	12 1	3 14	15 16	17	18 2	9 20	21 2	22 23	24	25 2	6 27	28	29 3	0 31	32 3	3 34	35 36
FEANI WP	Project Management						Т													П								
T1.	1 Project Management Pl	an	C)		П													Т	П								
T1.	2 Project Management A	ctivities																		П								
T1.	3 Project Management R	port + Technical & Financial Reporting					Ι													П				\perp				







Management Structure









WP2: Skills Council & Strategy

Start: M1 Sep. 2022 End: M36 Aug. 2025

- T2.1 Define structure and governance + Establish Skills Council & Working Groups
- T2.2 Methodology to assess, anticipate, monitor profession
- T2.3 Identify trends, challenges & opportunities
- T2.4 E4E Skills Strategy







WP2 deliverables & timeline

D2.1 E4E Skills Council (structure & governance) M11 Jul 2023

D2.2 E4E methodology to monitor the profession M9 May 2023

D2.3 E4E Skill Strategy M11 Jul 2023 M23 Jul 2024 M35 Jul 2025

D2.4 E4E Skills Strategy M12 Aug 2023 M24 Aug 2024 M36 Aug 2025

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WP			E4E Work Plan	5	0	N E	0 1	F	м	A. N	ı J	1 /	. 5	0 1	0	J	F M	A	M J	1	A S	0	N C	j j	£	M /	M	J	J A
Lead	1	MGINEERSAEUROPE		1	2	3 4	4 5	6	7	8 9	10	11 1	2 13	14 1	5 16	17	18 19	20	23 2	2 23	24 25	26	27 2	8 29	30	31 3	2 33	34	15 36
FEANI	WP2	EU Engineering Pro	fession: Skills Council, Skills Monitor/Anticipation Too	ds.			П																	П					
	T2.1	Define structure & g	overnance; establish Skills Council & Working Groups				Т	П		Т		0			Т		Т	П				П		Т	П				
	T2.2	Develop common m	ethodology to assess, anticipate, monitor profession				Τ	Т		T								П				П		Т				П	
	T2.3	Identification of tre	nds, challenges and opportunities for profession	Т			Т	Т		Т				П	Т	П	Т	П				П	\top	Е	П	Т			
	T2.4	Anticipating Skill Dy	namics for Engineering Profession: E4E Skills Strategy				Ι	Т										П				П		Г					









WORKING GROUPS

technical consultations, monitoring,

foresight, scenario and strategy setting

SECRETARIAT anagement, coordination, operati

management, coordination, operational continuity and financial sustainability



ASSEMBLY

composed of stakeholders oversees and steers the Skills Council

E4E Skills Council provides tools and solutions to educational systems & inputs to evidence based policy making

Education & Training

- Skills Catalogue
- Occupational Profiles
- Training content
- Mobility mechanisms
- Placement

Policy Formulation

- Strategic vision for engineering profession
- Identification of priority areas
- Input to evidence-based policy making
- Opinion papers
- Evidence filtering and amplification

84







WP3 Innovative Training

Start: M13 Sep. 2023 End: M24 Aug. 2024

- T3.1 Define Learning Objectives (on results of WP2 + EC Frames)
- T3.2 Develop E4E curriculum (content/structure/means/trainers' manual)
- T3.3 Develop "Skills Passport" + align w/ EQF, Europass, ESCO







WP3 deliverables and timeline

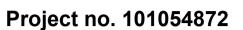
D3.1 E4E Learning Objectives / Outcomes M18 Feb 2024

D3.2 E4E Curriculum and Training M22 June 2024

D3.3 E4E Skills Passport M24 Aug 2024

							Ι				2	024					I			20	025			
WP		E4E Work Plan		5 0	0 1	ı D	,	F	м	A	M J	1	A.	5	0	N	D	J I	FN	t A	м	j	J	A
Lead	£	NGINEERS 4 EUROPE	1	3 1	4 1	5 16	1	18	19	20	21 22	23	24	25	26	27 2	28	29 3	0 3:	1 3:2	33	34	35	36
FEUP	WP3	Develop Innovative Training for the Profession					Г										\Box	Т						
	T3.1	Define Learning Objectives/Outcomes based on WP2 + EC Comp Frames		Ι	Т	Ι	L	0								_	1	I	I					
	T3.2	Develop E4E curriculum (content/structure/means/trainers' manual)		Ι		Τ	Г											I	Т					
	T3.3	Develop the "Skills Passport" and EQF alignment Europass ESCO		1	\perp	I			Ш								_	1						



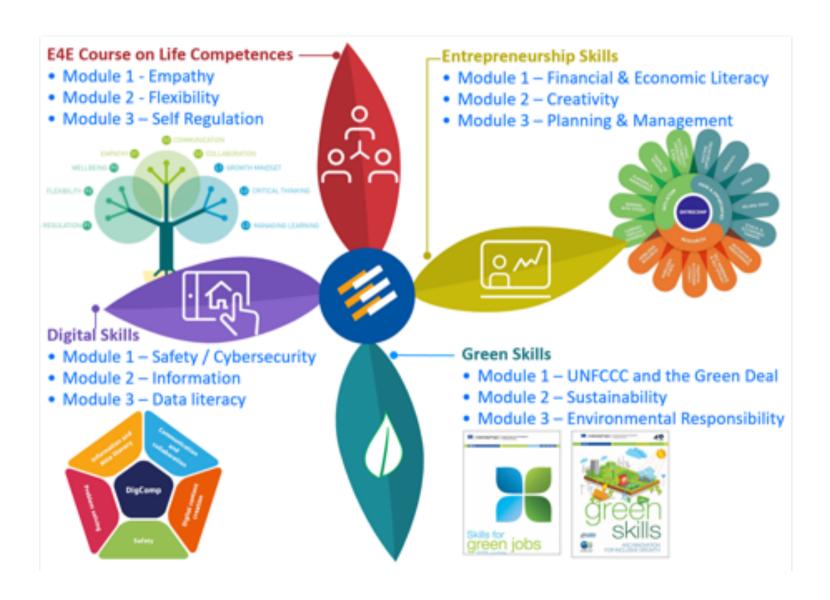






This project is funded by the European Union.

E4E Training









WP4 pilot delivery and validation

Start: M21 May 2024 End: M36 Aug. 2025

- T4.1 Test & Validation Plan
- T4.2 Deliver Training & Collect' feedback in Validation Report
- T4.3 Finalise the Training based on users' feedback
- T4.4 Guidelines for Mainstreaming and Uptake of Training







WP4 deliverables and timeline

D4.1 Validation Plan M23 Aug 2025

D4.2 Validation Report M36 Aug 2025

D4.3 Final E4E Training validated M36 Aug 2025

D4.4 Guidelines for Mainstreaming and Uptake M36 Aug 2025

														20	25			
WP		E4E Work Plan	М	J	J	A	5	0	N	D	J	F	М	A	М	J	J	A
Lead	E	NGINEERS A EUROPE	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
NG	WP4	Pilot Delivery: Test & Validation / Fine-Tuning																
	T4.1	Test & Validation Plan																
	T4.2	Deliver E4E Training + Collect users' feedback and collate Validation Report				0												
	T4.3	Finalise the Curriculum and Training based on users' feedback																
	T4.4	Guidelines for Mainstreaming and Uptake of Training																0







WP5 Impact: M&E and QA

- T5.1 Develop the Impact Plan (M&E and QA)
- T5.2 Carry out ME & QA Activities
- T5.3 Perform Impact Assessment
- T5.4 Draft M&E & QA Reports (2 Interim + 1 Final)







WP5 deliverables and timeline

D5.1 Impact Plan M3 Nov 2023

D5.2 Impact Assessments M18 Feb 2024 M36 Aug 2025

D5.3 Impact Report on M&E and QA

M13 Sep 2023 M25 Sep 2024 M36 Aug 2025

		4			20	22	Τ				20	12:3				Τ				200	24				Τ			202	5		
			E4E Work Plan	5	0	N I	D J	F	м	A I	d J	J	A 5	0	N	0 1	F	M.	L M	J	J.	A S	0	N C)]	F	м	A I	d J	J	A
WP Lead		NOINTERS ATUROFF		1	2	3	4 3	5 6	7	8 1	30	11	12 1	14	15 3	6 1	7 58	19 3	0 21	22	23 2	14 25	26	27 2	8 2	9 30	31	12 1	3 34	1 35	36
ANECA	WP5	IMPACT: Monitoring	g & Evaluation and Quality Assurance				1	Ι								Т			Т				П		Ι	Г			Т		
	T5.1	Develop the Impact	Plan with M&E and QA elements					Ι								\perp			Ι				П		Ι	Ι					
	T5.2	Carry out ME & QA A	Activities					Ι								Т						Т	П		Ι	Т			Т		
	T5.3	Perform Impact Asse	essment (Fomrative & Summative Evaluation)			Т	Ι							П	Т						Т	П	1	Ι	Τ			Ι		
	T5.4	Draft the M&E & QA	Reports (2 Interim + 1 Final)	Т			I	Ι							ш	Ι						I	П		Ι	Ι					







WP6 Valorisation

- T6.1 Develop Valorisation Plan
- T6.2 Establish the E4E website / OER platform
- T6.3 Carry out Valorisation Activities
- T6.4 Draft Valorisation Reports (2 interim + 1 final)







WP6 deliverables and timeline

D6.1 E4E Valorisation Plan: Dissemination & Exploitation

M3 Nov 2022

D6.2 E4E Website and OER Platform

M3 Nov 2022

D6.3 Valorisation Report (2 interim + 1 final)

M12 Aug 2023 M24 Aug 2024 M36 Aug 2025

				20	22						21	023									200	24							200	5		
		E4E Work Plan	5	0	N	Þ	1	F	M J	A I	4 3	2	٨	5 0) N	0	.2	F	A A	M	.2	1 .	A S	0	N	D	1 1	M	Α.	MI.	1 1	A,
WP Le	ad 🛚	NO INCOME CANAL OF COMMENTS AND	1	2	3	4	5	6	7 1	8 1	9 10	11	12	13 1	4 15	16	17	18 1	9 20	31	22	23 2	4 25	5 26	27	28	29 3	0 31	12	13 3	4 35	36
FEANI	WP6	Valorisation: Dissemination & Exploitation								Т																						
	T6.1	Develop the Valorisation Plan for dissemination & exploitation of E4E			П	П		П	Т	Т	Т		П	П	Т			Т	Т	П			Т	П			Т	Т	П	Т	Т	П
	T6.2	Establish the E4E website and OER platform & its maintainance								1																						
	T6.3	Carry out Valorisation Activities							I	Ι				1				I	Т			1	Т	П			Т			I	Т	
	T6.4	Draft Valorisation Reports (2 interim + 1 final)								Ι																						







Keeping track of dissemination

Dissemination Reporting Tool

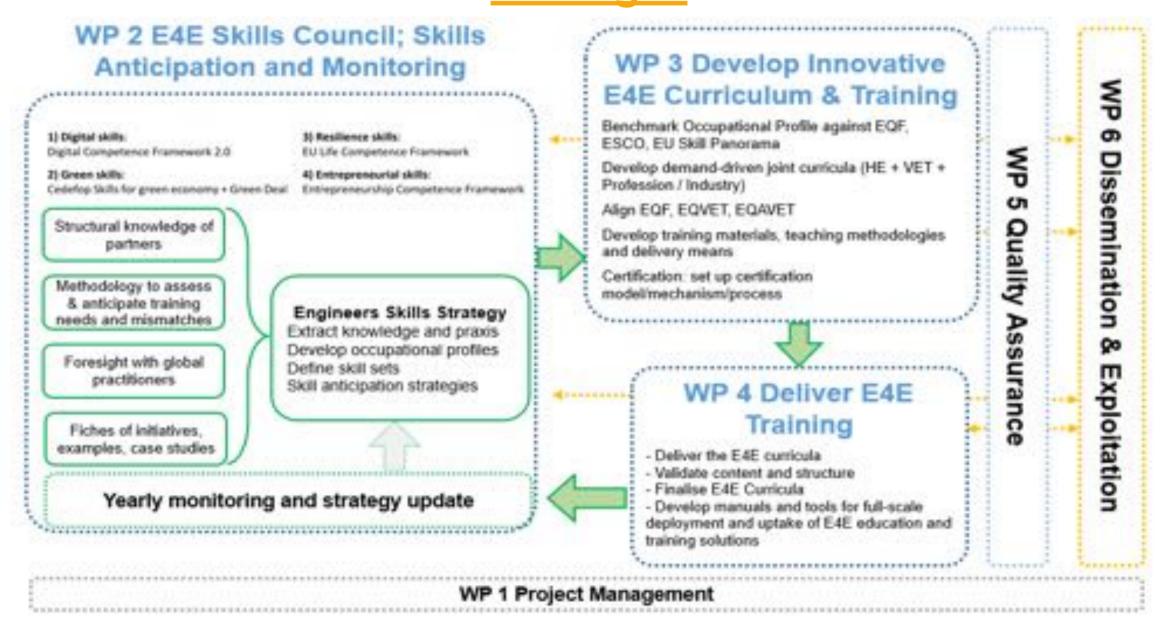
Erasmus+	*	Project ref number 101054872	
Partner	Tot online / partner	Tot offline / partner	Tot PM, STKHs / partner
FEANI (Applicant)	0	0	0
UPORTO	0	0	0
TU Dublin	0	0	0
KU Leuven	0	0	0
AECEF	0	0	0
Newport Group	0	0	0
IVEPE- SEV	0	0	0
ANECA	0	0	0
VDI	0	0	0
EI	0	0	0
OE	0	0	0
REHVA	0	0	0
ECEC	0	0	0
tot. Project level	0	0	0







Structure of the E4E Project and brief description of the Work Packages











Coffee break







Work Package 1: Project Management & Coordination

Project Implementation Plan D1.1

• D 1.1

Due: M3

Resp: FEANI

 Aim: it is the basis of Project Implementation, describing internal processes and setting tools and templates







Work Package 1: Project Management & Coordination

Project Implementation Plan D1.1

- The PIP is divided into 5 sections
 - THE E4E PROJECT
 - THE PARTNERSHIP
 - 3. FINANCIAL MANAGEMENT
 - IMPACT, PROCESS & KPIs
 - ANNEXES







Work Package 1: Project Management & Coordination / Project Implementation Plan D1.1

PIP Table of Content Section 1: THE E4E PROJECT

- 1.1 Relevant sectorial and horizontal Erasmus priorities
- 1.2 Targets and group of interest addressed by the Project
 - 1.2.1 Participants: Internal VS External Targets
 - 1.2.2 Participants with fewer opportunities
- 1.3 Results and Expected Outcomes
- 1.4 Duration of the Project and timeline of the foreseen activities
- 1.5 Detailed Break-Down of Project Results and Workloads







Work Package 1: Project Management & Coordination / Project Implementation Plan D1.1

PIP Table of Content Section 2: THE PARTNERSHIP

- 2.1 A Snapshot of the Participating Organisation
 - 2.1.1 Associated Partner
- 2.2 Internal Communication and Collaboration Dynamics
 - 2.2.1 Communication
 - 2.2.2 Cooperation
 - 2.2.3 Risk management and Conflict Resolution
- 2.3 Project Meetings







Work Package 1: Project Management & Coordination / Project Implementation Plan D1.1

PIP Table of Content Section 3: FINANCIAL MANAGEMENT

- 3.1 Budget Control
- 3.2 Internal Reporting
- 3.3 Interim & Final Report to EACEA







Work Package 1: Project Management & Coordination / Project Implementation Plan D1.1

PIP Table of Content Section 4: IMPACT, PROCESS & KPIs

- 4.1 Evaluation of Internal Procedures
 - 4.1.1 Formative vs Summative Evaluation
- 4.2 Key Performance Indicators
- 4.3 Impact Assessment Plan







Project Budget

Funding model: Lump sum contribution

- Project budget is a Lump sum
- Calculated as 80% of the total costs approved

TOTAL BUDGET of the proposal = 1.860.579

LUMP SUM GRANT (80%) = 1.488.466









Total Project Budget

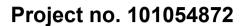
Budget Headings:

- Staff (divided into categories of personnel) / day
- Travel (travel, accommodation and subsistence for meetings and Council)
- Subcontracting (OER Platform)
- Other costs (hosting meetings, final conference, etc)
- Overheads (7% of total)

TOTAL costs = 1.860.579

GRANT (80%) = 1.488.466



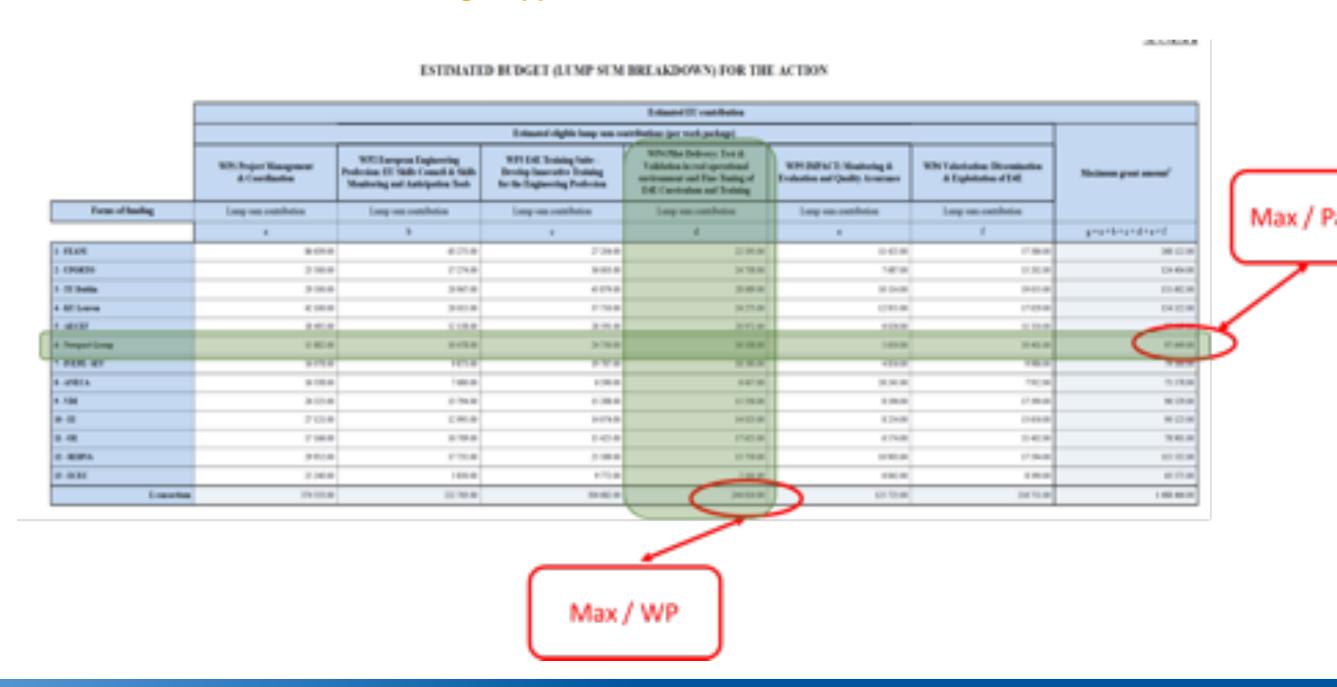






This project is funded by the European Union.

Budget approved: Annex II of G.A.









Art 5.5. Grant Agreement

NO Budget flexibility

- Changes to the lump sum breakdown always require an amendment
- Budget transfers between partners and between work packages (WPs) are not possible without an amendment
- Transfers between WPs possible only if:
 - the WPs concerned are not already completed
 - · the transfers are justified by the technical implementation of the action

7



Source: PPT EACEA: Kick off meeting for newly selected projects, July 13, 2022







Payments and reports



- Continuous reporting Art 21.1 Grant Agreement
- Technical and financial reports:
 - Internal 6 month reports to FEANI (technical + dissemination + request for payment)
 - Additional pre-financing report to EACEA: M 20
 - Final report to EACEA: M 36+2









Disbursement schedule

INTERNAL REPORT #	REPORTING PERIODS:	DEADLINE	DISBURSEMENTS	
- 1	1 September 2022 – 28 February 2023	15 March 2023	35%	
II	1 March 2023 - 31 August 2023	15 September 2023	40%	40% of total funding
III	1 September 2023 – 29 February 2024	15 March 2024	25%	
IV	1 March 2024 – 31 August 2024	15 September 2024	35%	
V	1 September 2024 – 28 February 2025	15 March 2025	40%	40% of total funding
VI	1 March 2025 – 31 August 2025	15 September 2025	25%	



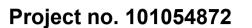




Notes on reporting to EACEA

- The additional payments are not conditioned by the completion of the WPs, which will be checked at final report stage only
- The financial part of the additional pre financing report includes a "statement on the use of the previous pre financing payment"



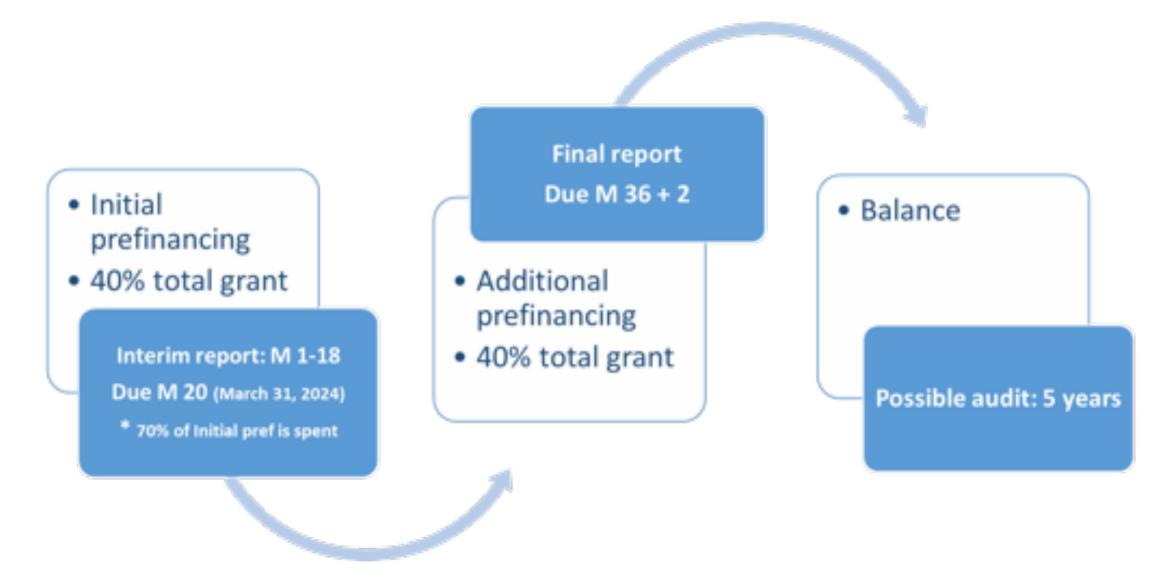






This project is funded by the European Union.

Pre-financing and reporting to EACEA









Supporting documents

Art 20 G.A.

The beneficiaries must ... keep records and other supporting documents to prove the *proper implementation* of the action ... in line with the accepted standards in the respective field (if any); beneficiaries do not need to keep specific records on the actual costs incurred.

Note: FEANI asked the project officer for further clarifications in July. The PO confirmed that details on financial supporting documents need to be finalised within the Agency and will keep us informed







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Aims and Objectives

Inform and raise awareness about project results, outcomes and benefits

Ensure effectiveness/sustainability of results within and beyond the project

Engage and involve stakeholders and target groups

Extend the impact of the project

Create the basis for further cooperation of the project consortium







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Dissemination – An ongoing activity ...









Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Dissemination – Content

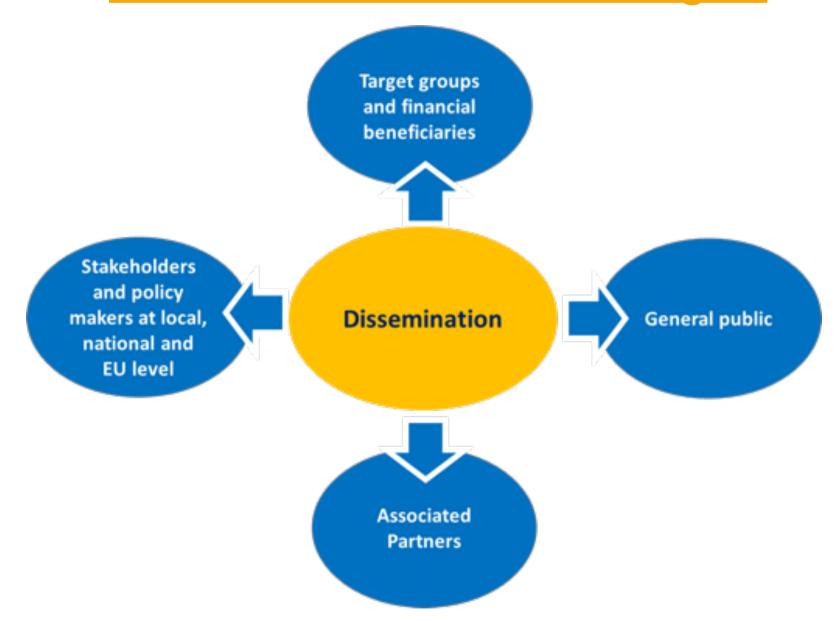
- Project outputs' status and completion
- Project meetings
- Multiplier Events
- Project presentation at Info days
- · Any response to project results that can be of interest for target groups/STKHs







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Dissemination – Targets









Work Package 6: Valorisation: Dissemination and Exploitation of E4E / E4E Target groups involved in project implementation

		WP2: Skills strategy Engineering	WP3: Development of E4E Training	WP4: T&V	Diss. events
1	Engineers	Impact indicator: 3.000	/	700	/
2	HEIs / VET providers	Primary research 200 STKHs among target 2 and 3 Impact indicator: 200	Training development 80 through formal and operational networks Impact indicator 50 STKHS adopting the training (target 2 and 3)	/	100
3	Profession, Industry & Companies	Primary research 200 STKHs among target 2 and 3 Impact indicator: 1.000	Impact indicator 50 STKHs among target 2 and 3	/	500
4	Policy makers	Impact indicator: 2.000	/	/	125 EU PMs
5	Social actors	Impact indicator: 50	/	/	35







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Means









Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Dissemination Events – Supporting Documents

- Attendance list
 - Name, date and place of the Event
 - Name, email address and signature of participants
 - Name of organisation
 - Country
- Detailed agenda of the event
- Copy of documents used and/or distributed
- Pictures



Coordinator to check formal requirements with Agency!







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Other events to showcase E4E

- FEANI National Members Forum (2x/year)
- FEANI General Assembly (2x/year)
- Regional FEANI Meetings (2x/year)
- FEANI Working Groups on STEM and UN SDGs
- Engineers Europe Advisory Group Meeting (1x/year)







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Press releases – Rotation

Press releases developed in 3 years	6
Press releases published in 3 years	78

Shared responsibility of partners (depending on role)

- The partner tasked with the development of the press release produces a general draft in English and sends it to the consortium;
- Partners translate, customize and post the PR on their website, social media channels and other relevant media outlet.







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Press releases – A suggested schedule

#	Topic	Responsible Partner	When
1	Launch of the project and Kick-Off Meeting held	FEANI	September 2022
2	Skills Council established + Skills Strategy	FEANI	September 2023
3	Learning objectives identified	Universidade do Porto	February 2024
4	Skills passport developed	Universidade do Porto	August 2024
5	Test & Validation on going	Newport Group	April 2025
6	Guidelines to Mainstream and Uptake Training	Newport Group	August 2025







Work Package 6: Valorisation: Dissemination and Exploitation of E4E / EU logo and disclaimer

EU Logo and Disclaimer must be visible in all publications



The European Commission support for the production of this publication does not constitute endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

https://ec.europa.eu/regional_policy/en/information/logos_downloadcenter

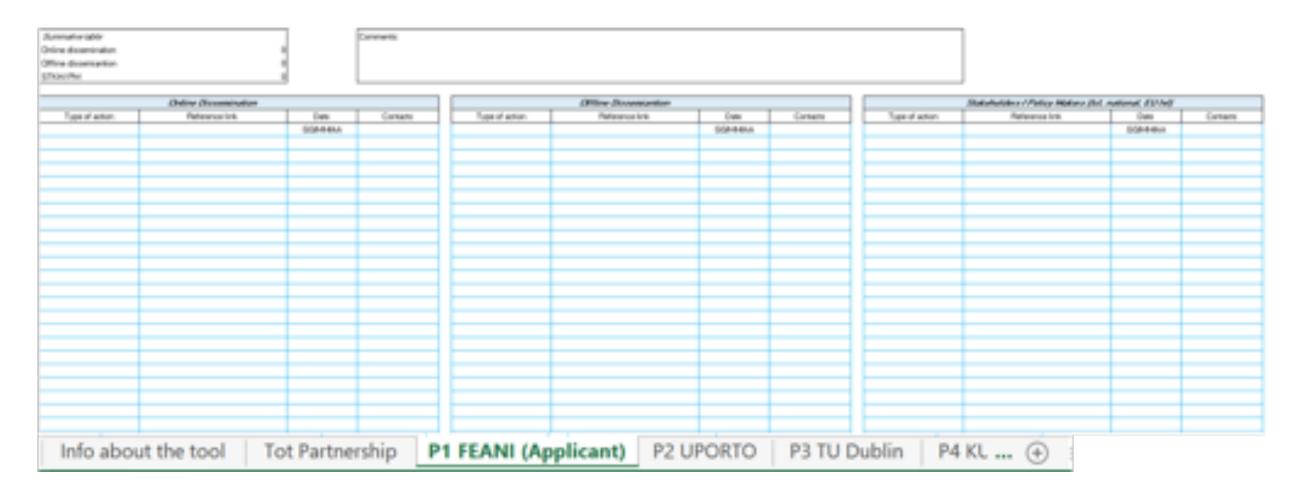






Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Dissemination Reporting Tool

DRT: common and open access work document to keep track of dissemination results

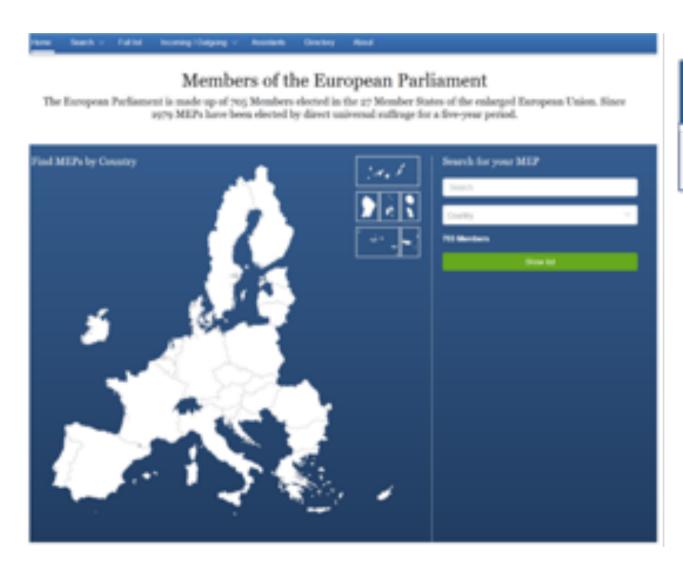








Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Find you MEPs



STEP 1

Select your country from the map at the following url www.europarl.europa.eu/meps/en/map.html



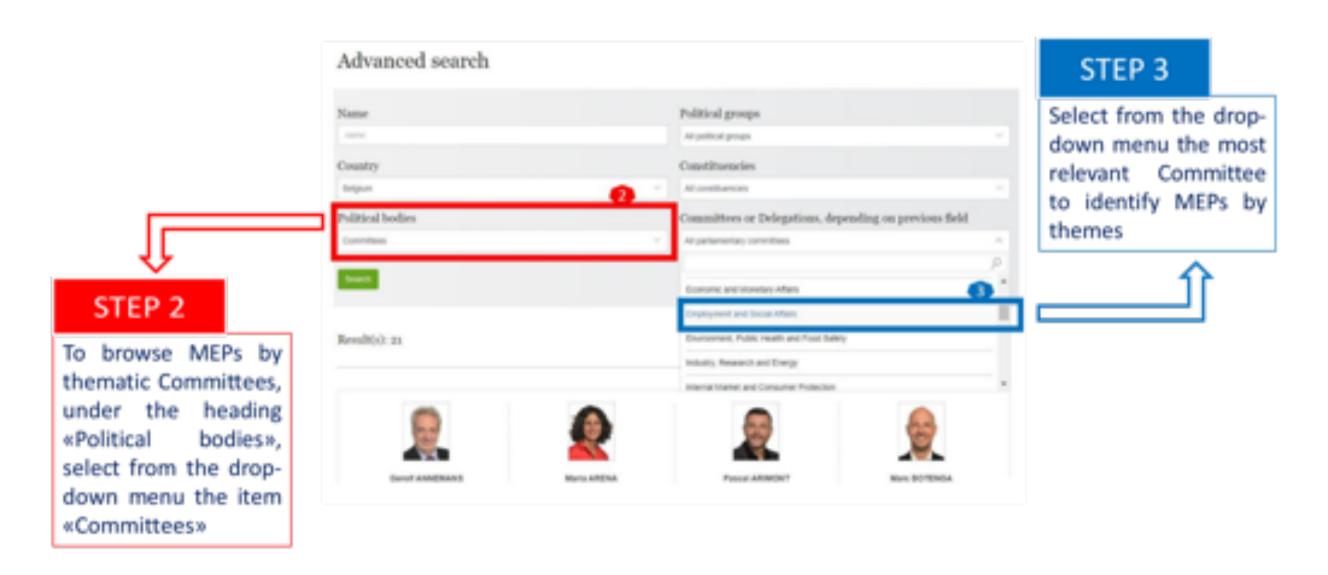




This project is funded by the European Union.

Project no. 101054872

Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Find you MEPs









Work Package 6: Valorisation: Dissemination and Exploitation of E4E / Sustainability strategy

EFE Online Platform

E4E Curriculum

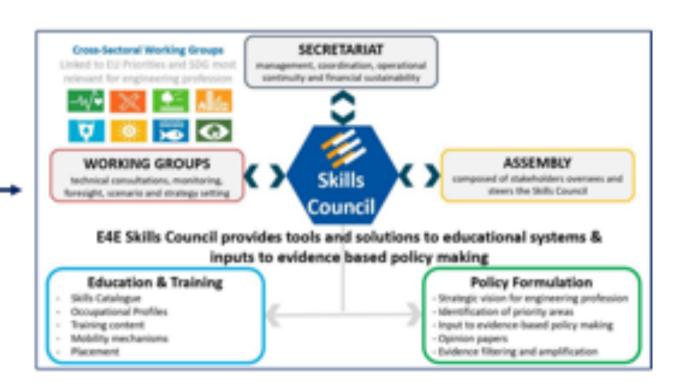
to be maintained alive after project completion

to be embedded in partners and STKHs training catalogue

E4E Skills Council

Sustainability of Council's activities and exploitation of project results will be assured by:

- An appropriate governance structure
- The use of the E4E methodology within the Council to monitor the evolution of the engineering profession
- The Cooperation between the Council and non EU parties (USA, India and China)











Day II







Work Package 2: Skills council and strategy

In WP2 partners will "formalise" the project into the "E4E Skills Council" to become the platform for multi-stakeholders' participation to shape the global leadership of the EU engineering profession

Skills strategy to monitor the profession and put forward options and recommendations







Work Package 2: Participatory approach: all partners

- representatives of profession and industry: represent the "demand side", labour market dynamics, challenges and opportunities for the profession
- educational partners represent the "supply side" of education (HE and VET) for skilling, upskilling, reskilling
- regulatory partner ANECA provides guidance on transparency for qualifications and skills (EQF, Skills Panorama, ESCO, EURES, etc)







Work Package 2: Tasks

Start: M1 Sep. 2022 End: M36 Aug. 2025

- T2.1 Define structure and governance + Establish Skills Council & Working Groups
- T2.2 Methodology to assess, anticipate, monitor profession
- T2.3 Identify trends, challenges & opportunities
- T2.4 E4E Skills Strategy







Work Package 2: Deliverables

D2.1 Skills Council structure and governance	M11		
D2.2 E4E common methodology	М9		
D2.3 Results of primary & secondary research	M11	M23	M35
D2.4 E4E Skills Strategy	M12	M24	M36

Internal deliverable that feeds into D2.4 Skill Strategy









E4E Skills Council provides tools and solutions to educational systems & inputs to evidence based policy making

Skills

Council

Education & Training

- Skills Catalogue
- Occupational Profiles

technical consultations, monitoring,

foresight, scenario and strategy setting

- Training content
- Mobility mechanisms
- Placement

Policy Formulation

composed of stakeholders oversees and

steers the Skills Council

- Strategic vision for engineering profession
- Identification of priority areas
- Input to evidence-based policy making
- Opinion papers
- Evidence filtering and amplification



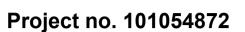




Work Package 2: T2.1 define structure & establish Council

- 1. Operational guidelines for Secretariat, Assembly, Council
- 2. Internal procedures: voting, reporting requirements, tools, etc.
- 3. Profile participants: roles, responsibilities, functions in Assembly & Council
- Supporting documents: Code of Conduct, MoU for adjoining members, internal reporting mechanisms and tools, etc
- Visibility and outreach campaign
- 6. Any other document, guidelines, tools









Work Package 2: T2.1 timeline

Starts in M1

Ends in M11

Lasts 11 months

Once defined the above 6 items, FEANI and partners establish the E4E Skills Council and operate it by hosting the first meeting of the Council and establishing the Working Groups

			20	22							20	23		
	E4E Work Plan	0	N	D	J	F	М	Α	М	J	J	A	5	
E	GINEERS 4 EUROPE	1	2	3	4	5	6	7	8	9	10	11	12	13
WP2	EU Engineering Profession: Skills Council, Skills Monitoring & Anticipation Tool													
T2.1	Define structure & governance; establish Skills Council & Working Groups											0		







Work Package 2: T2.1 next step 1: brainstorm

Partners brainstorm on Skills Council:

- What could / should look like
- Who should be there (type, country, size, etc.)
- What is it tasked with
- How does it work
- How many Working Groups (topic, shape, composition, etc.)
- Which tools / documents / mechanisms should have

- ...







Work Package 2: T2.1 next step 2: suggest

Partners provide inputs, based on experiences and examples

- Do you already take part in Working Groups with policy makers, industry, other educational orgs
- What works and what does not
- Ambition: the ideal Skill Council
- Reality: how can we make it work in real life







Work Package 2: T2.1 next step 3: FEANI consolidates

FEANI consolidates inputs from partners

FEANI develops a draft model of the Skill Council

Partners comment and suggest improvements

FEANI finalises and establishes the Council

Partners convene for the first meeting in M11 July 2023







Work Package 2: T2.2 develop the methodology

The purpose is to assess major trends affecting the professions, dynamic landscape of labour market, evolving nature of jobs, occupations and skills needs.

The methodology structured on 3 pillars:

- Assess current situation
- 2. Anticipate future needs
- 3. Yearly monitor to gauge the evolutions







Work Package 2: T2.2 joint effort

All partners provide their expertise and knowledge to develop the methodology: partners represent the two sides of the profession

- Do you monitor already
- What should be measured / monitored
- Compatibility of methodology and comparability of results







Work Package 2: T2.2 process and timeline

- Brainstorm
- Input provision
- FEANI consolidates, circulates, finalises

			20	22							20	23	
	E4E Work Plan	S	0	N	D	J	F	М	Α	М	J	J	Α
ENGINEERS 4 EUROPE		1	2	3	4	5	6	7	8	9	10	11	12
T2.2 Develop common m	ethodology to assess, anticipate, monitor profession												







Work Package 2: T2.3 map the engineering profession

Partners run the methodology to identify challenges and opportunities for the EU engineering profession, skills and competences dynamics taking into account:

- 1. Global dynamics
- 2. Societal changes
- Economic and industry trends
- 4. Labour market dynamics
- Technology evolutions









Work Package 2: T2.3 process

Partners use the methodology with a combination of:

<u>Primary Research</u>: ask your members, networks, peers, etc. via focus groups and/or interviews and/or questionnaire-based surveys.

Outreach of at least 200 respondents

Secondary Research: desk research of academic, industry and policy literature, analysis, reports, papers, etc.

Produce at least 10 fiches







Work Package 2: T2.3 producing the 10 fiches

A fiche is a one-page document that presents examples and practices of concrete policies and initiatives at regional and national levels addressing:

- digital/green/resilience/entrepreneurship
- skills shortages/mismatches
- brokering multi-stakeholder partnership models

FEANI produces a "template" Fiche (as part of the methodology) and each partner produces one fiche for their country / sector / field



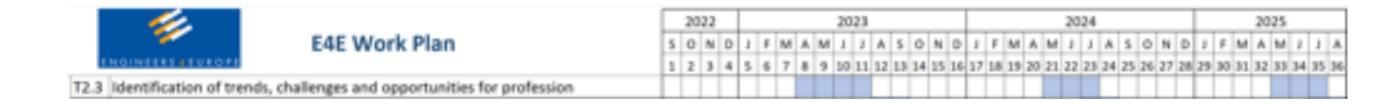




Work Package 2: T2.3 timeline: 3 rounds

Identify trends, challenges and opportunities for skills development of engineering profession

ROUND 1 Starts in M8 Ends in M11 Lasts 4 Months
ROUND 2 Starts in M21 Ends in M23 Lasts 3 Months
ROUND 3 Start in M33 Ends in M35 Lasts 3 Months









Work Package 2: T2.4 skill strategy

- a) Identify digital/green/resilience/entrepreneurial skills demand for engineers
- b) Profile skills supply and existing qualification frameworks
- c) Pinpoint skill mismatches







Work Package 2: T2.4 skill strategy

Based on results of T2.3, partners develop the Skills Strategy for the engineering profession in EU

Also collating the results of the consultation within the Skills Council and relevant Working Groups







Work Package 2: T2.4 timeline: 3 rounds

Identify trends, challenges and opportunities for skills development of engineering profession

ROUND 1	Starts in M12	Ends in M12	Lasts 2 Months
ROUND 2	Starts in M23	Ends in M24	Lasts 2 Months
ROUND 3	Start in M35	Ends in M36	Lasts 2 Months









Work Package 2: WP2 next steps

Today we split participants into 3 groups

Brainstorm on Skills Council composition, structure, governance, Working Groups, etc

Each group reports on their initial thoughts (10 mins?)

FEANI facilitates and collects results







Work Package 2: WP2 next steps: 3 groups

Groups to brainstorm on the structure, governance, mechanisms and procedures for the Skills Council

	Group A		Group B		Group C
P2	FEUP	Р3	TU Dublin	P4	KUL
P5	AECEF	P6	Newport	P7	IVEPE
P8	ANECA	Р9	VDI	P10	EI
P12	REHVA	P11	OE	P13	ECEC







Work Package 2: WP2 guiding questions for brainstorming

- 1) Structure of the Council Composition, working groups, eligibility/selection criteria, etc.
- Governance
 Secretariat, admission of new members, Code of Conduct, MoU, etc.
- Functioning
 Objectives, number of meetings
- Other aspects



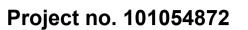




Work Package 2: T2.1 define structure & establish Council

- 1. Operational guidelines for Secretariat, Assembly, Council
- 2. Internal procedures: voting, reporting requirements, tools, etc.
- 3. Profile participants: roles, responsibilities, functions in Assembly & Council
- Supporting documents: Code of Conduct, MoU for adjoining members, internal reporting mechanisms and tools, etc
- 5. Visibility and outreach campaign
- 6. Any other document, guidelines, tools









Work Package 2: Next Steps

- Partners send to FEANI via email by Oct. 4 additional inputs, thoughts and contributions on the Skills Council
- FEANI consolidates results from the brainstorming and consultation rounds and circulates to partners (by end-October) ideas and options for the Skills Council
- Partners comment and provide feedback by November 7
- FEANI works on the Skills Council Concept, submits in mid-March to partners for approval









Work Package 2: Topics for input

- 1. How many working groups should be there?
- 2. Which topics/themes should be covered?
- 3. Why are they a priority?









Coffee break









Split-up groups







Presentation from each group and WP2 wrap-up

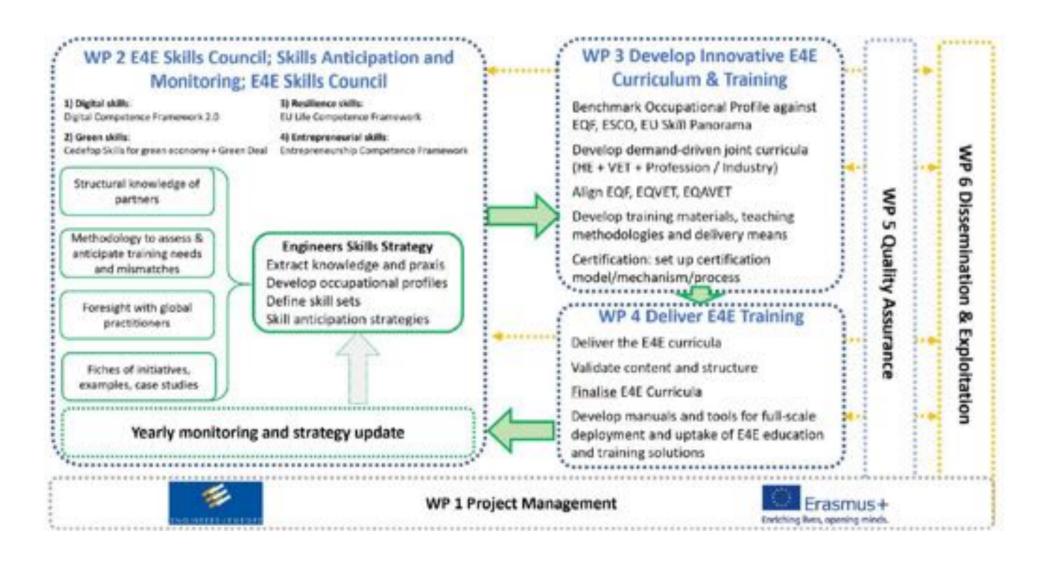
Each group will deliver a short presentation on : key features, pros and cons of different options; options moving forward for the establishment of the Skills Council; remaining queries and doubts.







Work Package 3: E4E Training Suite - Develop Innovative Training for the Engineering











Work Package 3: Objectives

E4E Training Suite - Develop Innovative Training for the Engineering Profession

Duration: M13 - M24

Lead Beneficiary: P2 FEUP

SO4: Adapt HE and VET provision to skills needs by designing and delivering transnational sector-wide curricula integrating work-based learning Based on 4 transversal skills dimensions:

SO5: Boost innovation by jointly developing and delivering new learning and teaching methods, also experimenting with micro-credentials

SO7: Develop new teaching methods and learning tools that incorporate transversal skills learning and application throughout HE and VET programmes developed in cooperation with enterprises and aimed at strengthening employability, creativity and new professional pathways





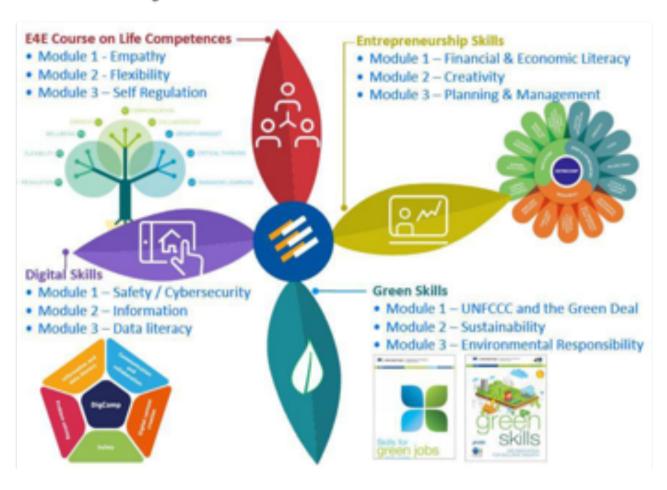


Work Package 3: Objectives

E4E Training Suite - Develop Innovative Training for the Engineering Profession

Duration: M13 - M24

Lead Beneficiary: P2 FEUP









Work Package 3: Methodology

- E4E curriculum and training based on a "modular approach"
- At least 4 courses, each with at least 3 modules (EQF levels from 4 to 6 ... 7)
- Available online without access restrictions.
- Blended-learning modalities using OERs (open educational resources)
- Microcredentials, operationalising the "European Approach to Micro-Credentials"
- Engaging materials and delivery means, including short animations and gamification
- Self-Assessment Tool (E4E SAT) for users to gauge their level of readiness, understanding and competence of transversal skills







This project is funded by the European Union.

Project no. 101054872

Work Package 3: Tasks, Milestones and Deliverables

Tasks	Mont h	Lead er
T3.1 - Define Learning Objectives and Learning Outcomes based on first round of mapping and benchmarked against the relevant EC competence frameworks and reference tools	13 - 18	FEU P
T3.2 - Develop the E4E curriculum (content/structure/means) including trainers' manual	16 - 22	FEU P
T3.3 - Develop "E4E Skills Passport" (alignment with EQF, Europass, ESCO, EURES)	21 - 24	IVEP E

Milestones	Mont h
MS7 - Availability of E4E curriculum and training	22
MS8 - E4E Skills Passport	24

Deliverables	Mont h
D3.1 - E4E Learning Objectives and Learning Outcomes based on occupational profiles and employability paths	18
D3.2 - E4E Curriculum and Training	22
D3.3 - E4E Skills Passport	24







Work Package 3: Brainstorming

- · Flexibility to change some of the foreseen modules?
- Readily available courses/modules among partners
- · Hours per course / module
- ECTS credits awarded?
- · Course / modules learning assessment?
- E4E curriculum and training directly available to learners?







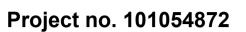
Work Package 4: Pilot Delivery: Test & Validation in real operational environment and Fine-Tuning of the E4E Curriculum and Training

Pilot Delivery: Test & Validation in real operational environment and Fine-Tuning of E4E Curriculum and Training

Engineers for Europe (E4E) Project Kick-Off Meeting 22-23 September 2022

Newport Group, SK









Work Package 4: WP Overview

WP Duration	M21 – M36 (16 months)
WP Leadpartner	Newport Group (P6)
Estimated Budet 305.017,00 EUR	
WP Objectives	Testing and Validation of E4E Curriculum and Training in real conditions
	Collection of user's feedback at trainer and learners level
	Finalisation and fine-tuning of E4E Curricula according to identified real-life needs in order to provide fo user-friendly product
	Focus on relevance of whole structure of E4E Training slutions (content, duration, depth, delivery means, etc.) as well as relevance across WPs (Occupational profiles and Competence profiles of WP2)
	Involement of at least 700 users (trainers and learners)









Work Package 4: WP Tasks

T4.1	M21 – M23	Development of Test & Validation Plan
T4.2	M24 – M36	Delivery of the E4E Curriculum and Training and Collect users' feedback / inputs and collate them in Validation Report
T4.3	M32 – M36	Finalisation of the E4E Curriculum and Training based on users' feedback
T4.4	M32 – M36	Development of the Guidelines for Mainstreaming and Uptake of E4E Curriculum and Training









Work Package 4: WP Milestones

MS9	M23	Validation Plan
MS10	M32	Validation Report
MS11	M36	Final E4E Curriculum - validated and fine-tuned version







Work Package 4: WP Deliverables

D4.1	Validation Plan
D4.2	Validation Report
D4.3	Final E4E Curriculum and Training validated and fine-tuned
D4.4	Guidelines for Mainstreaming and Uptake of E4E Curriculum and Training







Work Package 4: WP Deliverables









NEWPORT GROUP







Work Package 4: WP Deliverables















Work Package 5: Impact : Monitoring & Evaluation and Quality <u>Assurance</u>

WP5

PRESENTATION

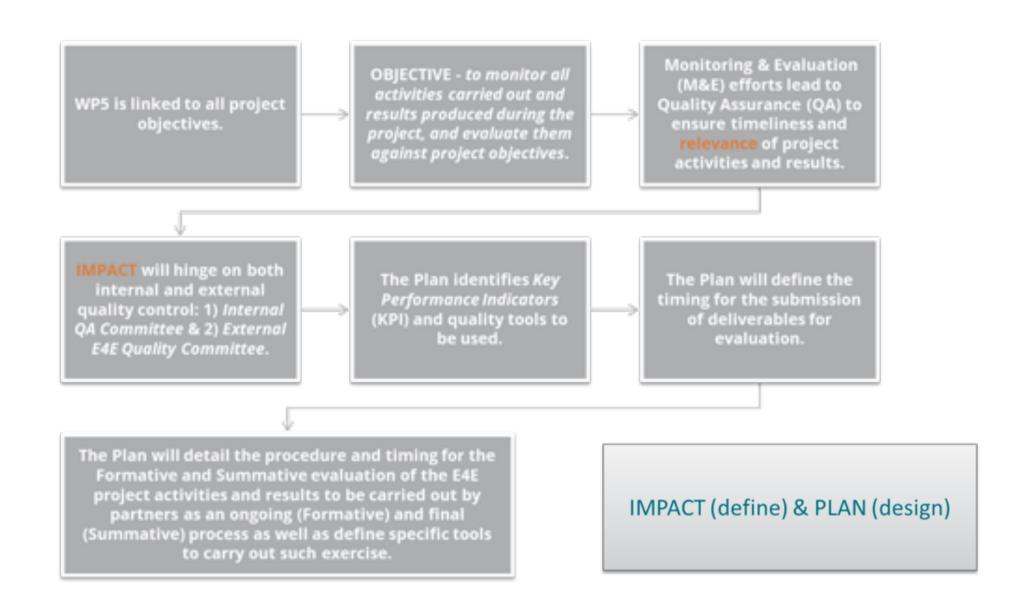
- Objectives.
- E4E Q Cycle
- Deliverables
- Team
- Timeline
- Plan M&E
- Workflow
- Risk management







Work Package 5: Objectives









Work Package 5: E4E Q-CYCLE Process









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Work Package 5: E4E Q-CYCLE Process

Partners will constantly monitor the project with precise oversight of implementation of TASKS, PRODUCTION OF DELIVERABLES AND OUTPUTS AND THEIR IMPACT to ensure the achievement of project objectives.

At proposal preparation the following Key Performance Indicators have been detailed and pinpointed to qualitatively and quantitatively assess the performance of the project against expected outcome, impact and objectives:

Table 4: Key Performance Indicators			
#	Indicator Quantification		
1	Skills Council Established	1	
2	Skills Council Meetings during Implementation	3	
3	Stakeholders participating in Observatory & Skills Council	150	
4	Engineering Profession Mapping and Monitoring Methodology	1	
5	Yearly Monitoring Reports of Engineering Profession	3	
6	Skills Strategy	3	
7	Revised Engineering Profession Occupational Profiles	3	
8	E4E Training and Curriculum	1	
9	Learners involved in validation	700	
10	Learners using the OER Platform	1,250	
11	Educational Providers and Professional Bodies adapt E4E training	50	







Work Package 5: E4E Q-CYCLE Process

- E4E partner has consolidated and proven experience in M&E with specific focus on "IMPACT EVALUATION".
- In E4E, the evaluation for project results and objectives will rely on two types of evaluation:
 - FORMATIVE EVALUATION as a continuous activity throughout the entire lifetime of the project. Formative Evaluation is an ongoing process to monitor project performance and smooth implementation. Formative evaluation will ALLOW PARTNERS TO IDENTIFY POTENTIAL ISSUES AND DEFINE MITIGATION MEASURES.
 - SUMMATIVE EVALUATION performed at the end of the project to IDENTIFY LESSONS LEARNED AND BEST PRACTICES for overall implementation and to benchmark final results and deliverables against stated objectives.







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Work Package 5: E4E Q-CYCLE Process

Number	Observatory Notes	Relationship
-1	Snapshot of international youth mobility	Mobility
2	Career outcomes for young people following an international mobility experience	Mobility
3	The democratization of Erasmus+	Democratization Erasmus +
4	Development of employability and civic skills during an Erasmus+ mobility	Mobility
5	How Erasmus Mundus impacts the internationalization of French higher education establishments	Erasmus Mundus in the French Higher Education Area
6	European cooperation in education and training: added value and impact	Cooperation
7	Impact evaluation of Erasmus + mobility	Mobility
8	Stays abroad for learning or professional purposes and the professional integration of secondary school leavers	Stays - Mobility - Secondary
9	Student and apprentice mobility under the Erasmus+ program	Student mobility
10	Erasmus +: Towards greater democratisation and inclusion?	Democratization Erasmus + - Inclusion
11	work-study programs in Erasmus +, an initial inventory	Erasmus +
12	The benefits of Erasmus + mobility for learners, staff and organisations	Mobility
13	Facilitating mobility among vulnerable populations	Mobility - Inclusion
14	European and international mobility in the regions	Mobility
15	Company participation in the Erasmus+ programme: motivations and contributions	Company
16	The effects of school change projects and eTwinning	https://www.etwinning.net/es/pub/index.htm Schools in Europe
17	Work-study in Erasmus+	Work – Study
18	Erasmus+ mobility for learners with disabilities	Mobility - Inclusion
19	Analysis of the benefits of Erasmus+ mobility for learners, staff and organizations	Mobility
20		

LES NOTES DE L'OBSERVATOIRE









Work Package 5: E4E Q-CYCLE Process

SOME MISSING ELEMENTS

1, 2, 4, 7, 8, 9, 12, 13, 14, 18 Y 19 3 y 10	MOBILITY DEMOCRATIZATION
10, 13 y 18	MOBILITY - INCLUSION
15 y 17	COMPANY - BINOMY: WORK / STUDY
5, 6, 11 y 16	OTHERS: COOPERATION, eTwinning, ERASMUS +,

European Added Value, Qualitative and Quantitative (both), DEI, SDGs, Employability & Entrepreneurship, Digital and Green Transition, All life Competencies (Resilience), Citizen Science, Open & Access Science, Engineering communication engagement with citizens....

ALL ARE IMPACT

IS NOT THE ECTS BUT THE IMPACT

What is an European engineer??







Work Package 5: E4E Q-CYCLE Process

- Diversity in the consortium empowers E4E to enact quality control measures from the perspective of industry, educational providers and regulatory bodies.
 - LABOUR MARKET RELEVANCE: the industry and profession representatives will constantly measure the quality of project results from the point of view of the prospective employers.
 - EDUCATIONAL AND TRAINING ACCURACY: the educational partners will be able to provide pedagogical accuracy and quality from the perspective of HEI and VET in a lifelong learning setting.
 - OCCUPATIONAL PERSPECTIVE: the partners representing career guidance, recognition and certification of competences will provide their perspective to the quality of project results.



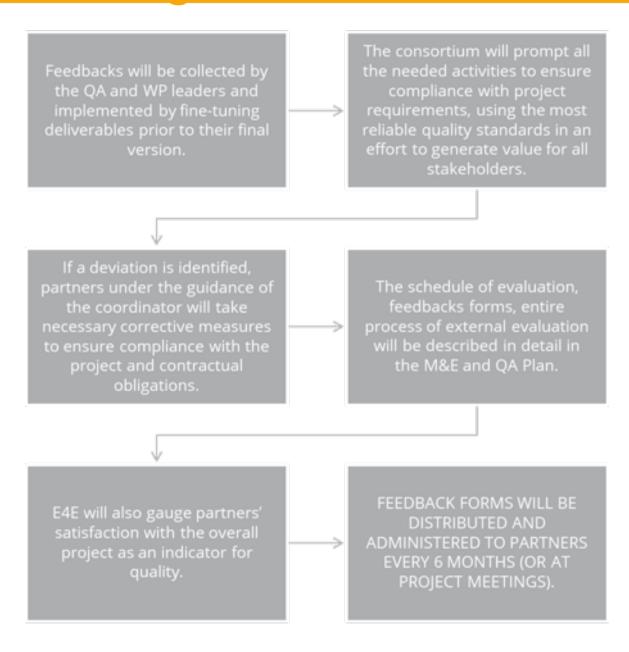






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Work Package 5: E4E Q-CYCLE Process







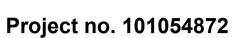


Work Package 5: E4E Q-CYCLE Process

D5.1 - Impact Plan for M&E and QA

D5.2 - Impact Assessment D5.3 - Impact Report on M&E and QA (DATA — data sets, microdata, etc;









Work Package 5: E4E Q-CYCLE Process







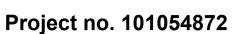


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Work Package 5: Timeline











Work Package 5: Workflow

1ST BRAINSTORMING

9 / 19 September.
 Recruitment, team building, sharing ideas and concepts out of the box ...

INTERNAL PRIORITIES

- Dynamic internal communication plan.
- Focus on collaborative tools inside / outside WP5
- Target Plan M&E December 2022
- Communication Plan. E4E Dissemination. Audience.
- Alliance & Networks (Academia and society)
- The Journey Mindset

INTEGRATION WITH REST OF WP PRIORITIES

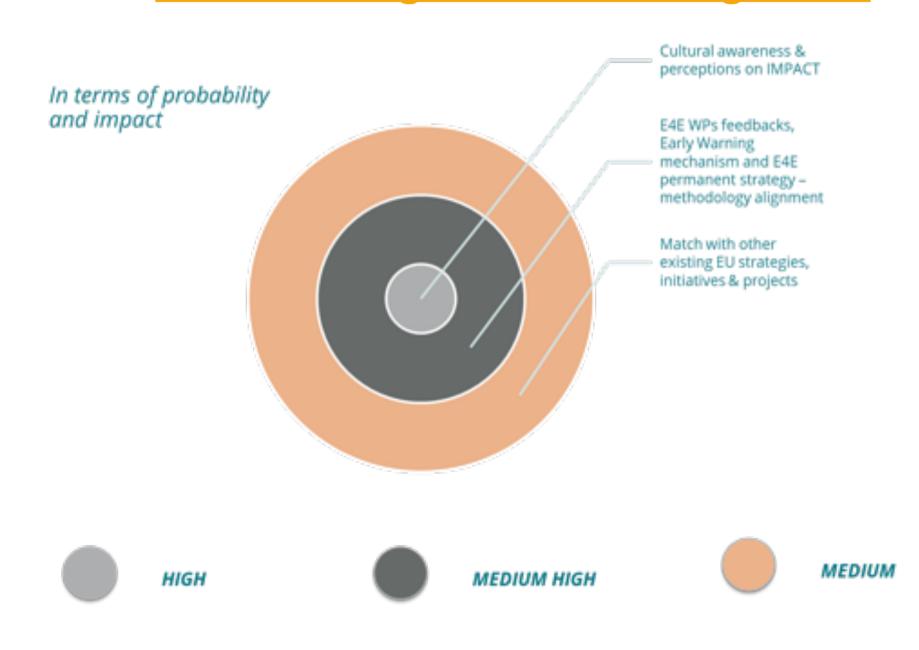
- Project Platform
- E4E Team Cohesion
- E4E Meeting in Spain (Jul 23)



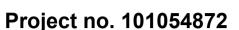




Work Package 5: Risk Management













Overall impact (both internal and external) will be measured using the "notes" of the "observatoire National de l'Impact Erasmus+" developed by the French National Agency. These scores are based on a methodology widely used in the Erasmus+ area and are based on 20 key indicators.

The Journal of International Mobility. Moving for Education, Training and Research, first published in 2013 by Agence Erasmus+ France / Education & Training, brings together scientific contributions that relate to all dimensions of international mobility of people in the context of education and training in Europe and worldwide, both in the higher education and general education sector and in initial and continuing vocational training.

(https://agence.erasmusplus.fr/observatoire-national-de-impacterasmus/#:~:text=L'Observatoire%20national%20de%20l,projets%20et%20du%20prog ramme%20Erasmus%20%20%2B)









EELISA aims to transform European higher education while strengthening links between engineering and society by:

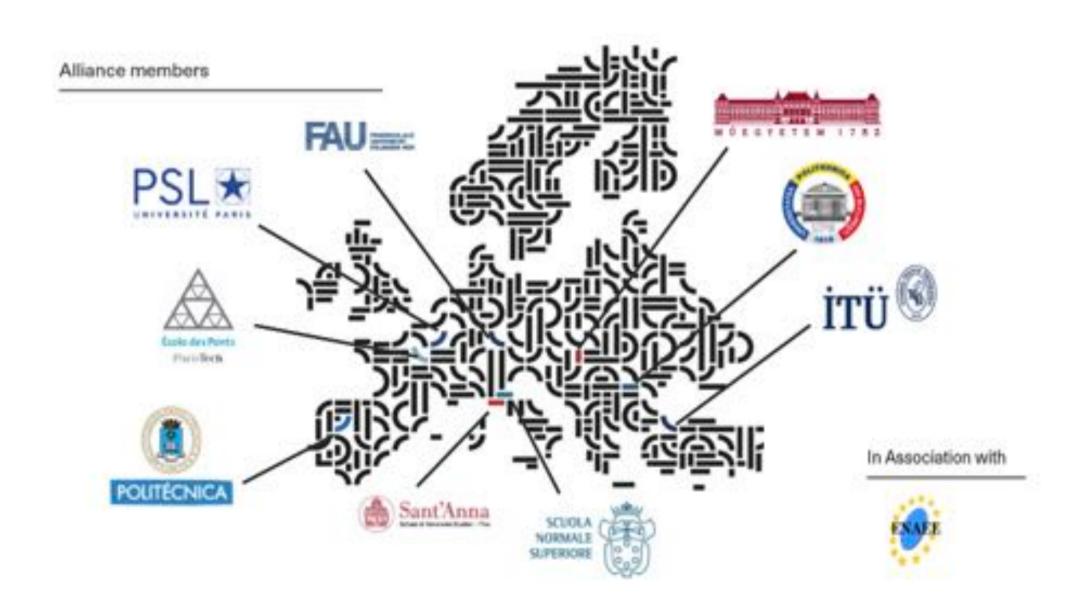
- □ Re-inventing the "European engineer".
- Democratizing engineering education.
- Evolving interdisciplinary engineering learning.
- Encouraging knowledge, skills and technology transfer.
- Fostering inclusiveness and diversity.
- Making a real impact on society following the 2030 Agenda for Sustainable Development and the SDGs.

(https://eelisa.eu/)















A MICRO-CREDENTIAL is the record of the learning outcomes that a learner has acquired following a small volume of learning. These learning outcomes have been assessed against transparent and clearly defined standards.

- Courses leading to micro-credentials are designed to provide the learner with specific knowledge, skills and competences that respond to societal, personal, cultural or labour market needs.
- Micro-credentials are owned by the learner, can be shared and are portable. They may be standalone or combined into larger credentials.
- They are underpinned by quality assurance following agreed standards in the relevant sector or area of activity.

(https://education.ec.europa.eu/education-levels/higher-education/microcredentials)







Parallel sessions







Parallel sessions I

Continuous reporting

Art 21.1 Grant Agreement



SyGMa platform for project reporting:

- Lists all deadlines of the project
- Consortium (Coordinator) <u>must</u> upload Deliverables according to deadlines
- A missing deadline produces a red flag and requires the intervention of the Project Officer









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Parallel sessions I - Sygma











Parallel sessions I – Delays

- Consortium can ask for a deadline to be postponed
 - If it has not expired
 - If this does not affect the overall structure of the project
 - Request to the Project Officer through the Platform







Parallel sessions I – Role of WP Leaders

- WP Leaders are responsible for their own WP
- They coordinate the contributions of all partners, collect material produced, develop draft and final versions of Deliverables
- They submit the Deliverables to FEANI Project Coordinator
- Only the Coordinator can upload the Deliverables on the Platform







<u>Parallel sessions I – Procedure Agreed</u>

- One month prior to each deadline FEANI sends an alert to WP Leader asking for update on the state of the Deliverable
- Deliverables must be submitted to FEANI at least 10 working days before the deadline
- If a delay occurs, WP Leaders must inform FEANI immediately







Next steps on Management and Q&A

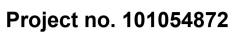






Advancing Implementation, next steps and Action & Decision List









AOB and closure of the meeting









Thank you!