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Glossary

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This chapter contains an alphabetical overview of all relevant terms and abbreviations used in this handbook, their definitions, and where possible their source, explained within a European education context. It aims to aid the reader in quickly accessing definitions for the most important terms used in this Handbook.

ABET A non-profit USA-based organization that accredits college and university programs in applied science, computing, engineering, and engineering technology. Known under the full name of Accreditation Board for Engineering and Technology until 2005 (ABET, n.d.)

Academic Staff members of staff at an HEI that are primarily concerned with teaching and research and usually hold a degree themselves. In North America often referred to as faculty.

Accessibility *"The provision of flexibility to accommodate each user's needs and preferences; when used with reference to persons with disabilities, any place, space, item or service, whether physical or virtual, that is easily approached, reached, entered, exited, interacted with, understood or otherwise used by persons of varying disabilities, is determined to be accessible"* (United Nations, 2013).

Accreditation *"The process by which a (non-)governmental or private body evaluates the quality of a higher education institution as a whole or of a specific educational programme to formally recognise it as having met certain pre-determined minimal criteria or standards. The result of this process is usually the awarding of a status of recognition, and sometimes of a license to operate within a time-limited validity. The process can imply initial and periodic self-study and evaluation by external peers"* (Vlăsceanu et al., 2007).

Accreditation standard Accreditation standards or as they are more commonly known programme outcomes are the *"discrete, observable outcomes expected of graduates upon completion of an accredited engineering programme"* (Carthy et al, 2026) that are approved by an accreditation, *"The process by which a (non-) governmental or private body evaluates the quality of a higher education institution as a whole or of a specific educational programme to formally recognise it as having met certain pre-determined minimal criteria or standards. The result of this process is*

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usually the awarding of a status of recognition, and sometimes of a license to operate within a time-limited validity. The process can imply initial and periodic self-study and evaluation by external peers" (Vlăsceanu et al., 2007).

Action Research also refer as practitioner research or inquiry defined as *"any systematic inquiry conducted by teachers, administrators, counsellors or others with a vested interest in the teaching and learning process or environment for the purpose of gathering information about their particular school's operation, how they teach and how their students learn. It is done by teachers for themselves as a systematic inquiry into their own practice" (Mertler, 2024).*

Active Listening *"Empathic responding using both words and actions, based on understanding the speaker's idea, attitude, and point of view, so that the listener senses how it feels to the speaker and grasps the speaker's frame of reference about the subject" (Novick et al., 2021).*

Adaptability for change/Change Management *"A learner's adaptability involves identifying qualities which are critical for future performance and being both willing and able to make personal changes in order to meet those needs in a proactive way" (Hall & Chandler, 2005).*

AHSS Arts, Humanities, and Social Sciences.

Assessment Process used to evaluate the learner's progress and ascertain the achievement of the learning outcomes of an educational component (unit/module) using methods such as written, oral, and practical tests/examinations, projects, performances, presentations and portfolios (derived from European Commission. Directorate General for Education and Culture, 2015).

Autonomous Motivation Intrinsic motivation, *"doing something because it is inherently interesting or enjoyable or motivating oneself by focusing on positive external factors"*(Ryan & Deci, 2000).

Case study *"Case is a thing, a single entity, a unit around which there are boundaries" (p. 27) and it can be a person, a program, a group, a specific policy and so on. Qualitative case study is "an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit" (p. xiii). Defining characteristics: Particularistic (focusing on particular situation, event, program, or phenomenon); Descriptive (yielding a rich, thick description of the phenomenon under study); Heuristic (illuminating the reader's understanding of a phenomenon under study) (Merriam, 1998).*

Chartered Engineer A professional status granted by a recognised engineering body indicating the highest level of competence and expertise. Chartered Engineers are formally registered engineers who develop solutions to engineering problems using new or existing technologies, through innovation, creativity and change and often take technical responsibility for complex systems (The Institution of Engineering and Technology (IET), n.d.).

Collaboration A joint effort – by multiple people - towards a group goal (Briggs et al., 2006).

Constructive Alignment An education design model based on “*a combination of constructivist theory and aligned instruction in which teaching and learning activities and assessment tasks are in correspondence (alignment) with the intended learning outcomes to allow for deep engagement*” (Biggs, 2011).

Continuous Professional Development refers to “*formal in-service training undertaken by teachers or higher education staff throughout their career that allows them to broaden, develop and update their knowledge, skills and attitudes. It includes both subject-based training and pedagogical training. Different formats are offered such as courses, seminars, peer observation and support from networks of practitioners. In certain cases, CPD activities may lead to supplementary qualifications*” (European Commission / EACEA / Eurydice, 2024).

Course A course may be a self-contained, formally structured learning experience with learning outcomes but is used interchangeably with *seminar, lecture, classroom activity, MOOC, subject, module* or even *programme* (European Commission, 2015). As the word course is ill-defined, we will not use it in this handbook and use the word *module* for a self-contained, formally structured, credit-giving component of a programme, usually covering a specific topic or theme and the word *programme* to refer to a degree programme.

Curriculum refers to the design, organisation and planning of programme activities, content and teaching of the elements that make up a programme, including the content to be covered, intended learning outcomes, and the teaching and assessment methods. Derived from the European Centre for the Development of Vocational Training (2024) and the European University Association (2020).

Discipline-based Education Research as described by the National Research Council (2012) is “an empirical approach to investigating learning and teaching that is informed by an expert understanding of disciplinary knowledge and practice (Bakker, 2018).

Disability An umbrella term for physical, mental, or sensory impairments that, in interaction with environmental or societal barriers, limit a person’s ability to participate fully in activities. In other words, disability arises from the mismatch between individual functional impairments and inaccessible environments, and thus is “not just one health problem” but a complex phenomenon reflecting the interplay between a person’s condition and society (World Health Organization, n.d.)

Diversity, Equality and Inclusion (DEI) Principles and practices ensuring that all individuals, especially those from historically underrepresented or marginalized groups, are valued and treated fairly. Diversity means the presence and representation of varied identities, perspectives, and backgrounds; Equality (or equity) means providing fair treatment and equal opportunity to achieve outcomes; and Inclusion means creating environments where everyone has a voice, feels respected, and can participate fully (Health Care Professions Council, 2020).

Dublin Descriptors The cycle descriptors (or *'level descriptors'*) presented in 2003 and adopted in 2005 as the Qualifications Framework of the European Higher Education Area. They offer generic statements of typical expectations of achievements and abilities associated with awards that represent the end of each of a (Bologna) cycle or level. The descriptors are phrased in terms of competence levels, not learning outcomes, and they enable to distinguish in a broad and general manner between the different cycles. A level descriptor includes the following five components: 1) knowledge and understanding, 2) applying knowledge and understanding, 3) making judgements, 4) communication, 5) lifelong learning skills (European Commission. Directorate General for Education and Culture, 2015).

EAFSG EUR-ACE® Framework Standards and Guidelines

ECTS - European Credit Transfer System the European wide system to express *"the volume of learning based on the defined learning outcomes and their associated workload. 60 ECTS credits are allocated to the learning outcomes and associated workload of a full-time academic year or its equivalent, which normally comprises a number of educational components to which credits (on the basis of the learning outcomes and workload) are allocated. ECTS credits are generally expressed in whole numbers."* (European Commission, 2015).

(Education) Design Research in this context Education Design Research, refers to *"the systematic study of designing, developing and evaluating educational interventions, – such as programs, teaching-learning strategies and materials, products and systems – as solutions to such problems, which also aims at advancing our knowledge about the characteristics of these interventions and the processes to design and develop them"* as per Plomp (2010). In design research the research is design-based and the design is research-based (Bakker, 2018).

EHEA – European Higher Education Area, collaborative effort by 49 European nations, which building on the main objective of the Bologna Process to create a more comparable, compatible, coherent, higher education system in Europe (Derived from European Commission. Directorate General for Education and Culture, 2015).

ENAAE - European Network for the Accreditation of Engineering Education. a non-profit network of agencies promoting quality engineering education, primarily by authorizing accreditation bodies to award the EUR-ACE® label (ENAAE, n.d.).

Engineering Councils The regulatory authority in the United Kingdom responsible for establishing and upholding globally acknowledged benchmarks of professional competence and ethical conduct of engineers, which also governs the award, the awarding and retention of the titles of Chartered Engineers as well as other titles such Incorporated engineers and engineering technician.

Engineering Education Research (EER) field of disciplinary educational research focused on generating knowledge to define, understand, and improve how engineers are educated, encompassing research on pedagogy, assessment, diversity, policy, and learning, derived from Loui & Borrego (2019).

Engineers Europe a federation of national professional bodies representing engineering in European countries, formally FEANI (Fédération Européenne d'Associations Nationales d'Ingénieurs)

EUR-ACE® is a European Quality Label authorised by ENAEE to Professional Engineering Institutions who accredit engineering programmes (ENAEE, n.d.).

Evaluation in education “*refers to the systemic process of assessing the effectiveness and quality of educational programmes, teaching methods and student learning outcomes*” (UNESCO, 2026). In relation to student learning, it is often the end point where a student’s achievement is measured for validation purposes.

External Examiner someone from outside a student's own school, college, or university who judges an exam (EXTERNAL EXAMINER | English meaning – Cambridge Dictionary, 2025).

Faculty In North America, this term is used to refer to “*the people who teach in a university, college, or US high school, or in one of its departments*” whereas in Europe the term is used to refer to: “*a group of departments in a university or college that specialize in a particular subject or group of subjects.*” (Cambridge Online Dictionary) In this handbook, we will avoid the use of faculty to refer to people and use the term academic staff instead.

Facilitation The provision of opportunities, resources, encouragement and support for the group to succeed in achieving its objectives, and to do this through enabling the group to take control and responsibility for the way they proceed (Bentley, 1994).

Feedback – Giving Feedback Feedback is “*a process through which learners make sense of information from various sources and use it to enhance their work or learning strategies*” (Carless & Boud, 2018). Ability to give constructive feedback to improve team members’ performance (Leandro Cruz & Saunders-Smiths, 2019).

Feedback – Receiving Feedback “*The understandings, capacities and dispositions needed to make sense of feedback information and use it to enhance work or learning strategies*” (Carless & Boud, 2018).

First Cycle Degree refers to the first step in the Higher Education Degree Cycle under the standardized European Higher Education Area framework for learners who have completed upper secondary education or equivalent. This is typically a bachelor’s level programme, lasting 3-4 years, requires 180-240 ECTS to complete (derived from EHEA, European Higher Education Area, 2018 and European Commission. Directorate General for Education and Culture, 2015).

Framework (in the context of this handbook) is defined as a foundational structure—comprising concepts, theories, beliefs, or sets of rules—used to organize ideas, guide research, or plan curricula and instruction. (Mccomas, 2014, pp42)

Graduate A learner who has completed all programme deliverables and has been awarded a degree.

Graduate Student A learner who already holds a First and/or Second Cycle or Single Cycle Degree and is enrolled in a Second or Third Cycle Degree programme.

Graduate Attributes synonym for Programme Outcomes. In this handbook, we will use the term Programme Outcomes.

Higher Education Institution (HEI) Any institution providing services in the field of higher and/or tertiary education, as defined by national law. (European Commission / EACEA / Eurydice, 2024).

Holistic Engineering a cross-disciplinary, whole-systems approach to engineering education (Grasso & Burkins, 2010)

IEA - International Engineering Alliance A global collective of like-minded organisations focused on quality assurance in engineering education and professional competence. The organisation sets benchmark standards for engineering education and helps support engineers to work across borders and support sustainable communities (International Engineering Alliance, n.d.)

Information Literacy Skills A set of abilities to identify the need for information, find and evaluate it effectively, and use it in an ethical and legal manner to solve engineering problems. It underpins lifelong learning and supports the critical evaluation of automated information sources (ACRL, 2006).

Initiative “*behavior characterized by its self-starting nature, its proactive approach, and by being persistent in overcoming difficulties*” (Frese & Fay 2001).

Interpersonal communication skills - Adaptive Communication Style Ability to reflect on one’s own and others’ perspectives to adjust communication choices for shared meaning. (Leandro Cruz & Saunders-Smits, 2022)

Interpersonal communication skills - Interconnection/interrelation ability Ability to build trust and sustaining constructive relationships over time. (Leandro Cruz & Saunders-Smits, 2022)

Interpersonal communication skills - Listening skills Ability to attend closely to verbal and non-verbal messages to ensure accurate interpretation. (Leandro Cruz & Saunders-Smits, 2022).

Intervention A manipulation implemented by an external agent (i.e., teacher, researcher) that was intended to change students’ cognitions, emotions, and/or behaviours. (Lazowski & Hulleman, 2016).

Leadership Skills Ability to create the environmental conditions conducive to good performance: support of shared understanding, innovation, problem-solving, resilience and learning (*Technical Leadership in Systems Engineering - SEBoK*, 2024).

Learning Beliefs A person’s subjective judgments about a relation between learning and his or her values or attributes (Fishbein & Ajzen, 1977).

Learning Outcome Statements of what a learner knows, understands and is able to do on completion of a learning process. The achievement of learning outcomes has to

be assessed through procedures based on clear and transparent criteria. Learning outcomes are attributed to individual educational components and to programmes as a whole. They are also used in European and national qualifications frameworks to describe the level of the individual qualification (European Commission, 2015).

Learning Path or Programme Path *"The way in which learning is organised"* (Translated from Codex Hoger Onderwijs, 2014) - for instance through structures which allow for students to encounter, experience, and reflect on their learning within a curriculum or degree programme, with the purpose of supporting students in developing a clearer sense of their emerging professional identity

Learning Strategies An individual's way of organizing and using a particular set of skills in order to learn content or accomplish other tasks more effectively and efficiently in school as well as in non-academic settings (Schumaker & Deshler, 1992).

Learning Trajectory *"a well-argued progression of intermediate objectives and pedagogical content, directed toward a final goal. Depending on the precise function, context of application, and target group, these trajectories vary in the degree to which implications for various curricular components are operationalized"* (translated from Strijker, 2010).

Lifelong Learning Lifelong Learning encompasses all learning activities undertaken throughout life with the aim of improving knowledge, skills, and competences, within personal, civic, social, or employment-related perspectives (Commission of the European Communities, 2001).

Meeting Skills a set of teachable professional competencies that enable engineers to prepare for, participate in, lead, and follow up on meetings effectively. These skills extend beyond generic communication abilities, encompassing technical precision, facilitation strategies, structured decision making, documentation standards, and inclusive participation practices tailored to engineering environments (Galster et al., 2024; Changpueng & Pattanapichet, 2024)

Module refers to a self-contained, formally structured, credit-giving educational component of a degree programme, usually covering a specific topic or theme. Derived from European Commission (2015).

MOOC MOOCs or Massive Open Online Courses allow open entry and are delivered online usually with peer or automated support. They often have large enrolment numbers (European Commission, 2015).

Open Educational Resources (OER) Digitised materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research; it includes learning content, software tools to develop, use and distribute content, and implementation resources such as open licenses; OER also refers to accumulated digital assets that can be adjusted and which provide benefits without restricting the possibilities for others to enjoy them (European Commission 2015).

Operational Awareness Knowledge and understanding of operational processes, with the ability to react accordingly whenever there are any unexpected changes. (Coates et al., 2004).

Oral Presentation and Reporting skills – Presentation Skills “Ability to give a clear, organised and logical speech and answers questions adequately and with elaboration” (Leandro Cruz & Saunders-Smiths, 2019).

Oral Presentation and Reporting skills - Quality of Presentation Method “Ability to develop presentation methods and mediums depending on the topic and target group” (Leandro Cruz & Saunders-Smiths, 2019).

Oral Presentation and Reporting skills - Pitching skills Ability to convey and persuade audiences within a short 1–3-minute speech (Leandro Cruz & Saunders-Smiths, 2019).

Peer Assessment “An arrangement in which individuals consider the amount, level, value, worth, quality, or success of the products or outcomes of learning of peers of similar status” (Topping, 1998).

Perseverance “The quality or state of maintaining a course of action or keeping at a task and finishing it despite the obstacles (such as opposition or discouragement) or the effort involved.” (American Psychological Association, 2023).

Problem Based Learning (PBL) “An instructional learner-centred approach that empowers learners to conduct research, integrate theory and practice, and apply knowledge and skills to develop a viable solution to a defined problem” (Savery, 2015).

Project Based Learning (PjBL) “an inquiry-based instructional method that engages learners in knowledge construction by having them accomplish meaningful projects and develop real-world products” (Guo et al., 2020).

Professional Engineering Institutions (PEI) “collective term for professional bodies and trade unions for engineers established to advocate for the advancement of the profession and the development of its members” (Carthy et al, 2026).

Programme Refers to the degree programme that a student follows, leading to a formal qualification, usually at the bachelor’s or master’s level. In some contexts, this term can also refer to a fixed set of courses/subjects/modules covering a single discipline, whereas it is a more flexible concept in other contexts. *In this handbook, we use programme in the context of degree programmes only.*

Project management (on process level) Ability to apply processes, methods, skills, knowledge and experience to achieve specific project objectives according to the project acceptance criteria within agreed parameters. (Association for Project Management, 2024).

Programme Outcomes (POs) “The discrete, observable outcomes expected of graduates upon completion of an accredited engineering programme” (Carthy et al, 2026).

Quality Assurance *"The process or sets of processes adopted nationally and institutionally to ensure the quality of educational programmes and qualifications awarded"* (European Commission. Directorate General for Education and Culture, 2015).

Representational Literacy The ability to create, interpret, and communicate meaning through external visual representations, such as sketches, diagrams, drawings, and computational models. In engineering, it involves moving effectively between different representational forms and conventions. Derived from Buckley et al. (2018) and Johri and Lohani (2011).

Resilience/Ability to cope with changes, failures, and success The process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioural flexibility and adjustment to external and internal demands (American Psychological Association, 2018a).

Risk analysis and risk management skills Ability to carry out a risk analysis and manage and mitigate identified risks in engineering design and operations (NASA, 2007).

Scholarly teaching refers to teaching informed by the latest development on the discipline and also research about instructional design and how students learn in general or in the specific discipline as presented by Dewar et al., 2018.

Scholarship of Teaching and Learning (SoTL) The systematic study of teaching and learning, using established or validated criteria of scholarship, to understand how teaching (beliefs, behaviours, attitudes, and values) can maximize learning, and/or develop a more accurate understanding of learning, resulting in products that are publicly shared for critique and use by an appropriate community. (Potter & Kustra, 2011)

Second Cycle Degree (SCD) Refers to the second step in the Higher Education Degree Cycle under the standardized European Higher Education Area framework. This is typically a master's level programme, lasting 1-2 years, requires 60-120 ECTS to complete. Entry requirement is usually a First Cycle Degree or equivalent (derived from EHEA, European Higher Education Area, 2018 and European Commission. Directorate General for Education and Culture, 2015).

Single Cycle Degree (SiCD) Refers to an integrated programme under the standardized European Higher Education Area framework. It combines both the first and second cycle into one 5–6-year degree, requiring 300-360 ECTS to complete and usually leads to the awarding of a master's degree. Entry requirement is usually completion of upper secondary education or equivalent (derived from EHEA, European Higher Education Area, 2018 and European Commission. Directorate General for Education and Culture, 2015).

SEFI Société Européenne pour la Formation des Ingénieurs - European Association for Engineering Education (www.sefi.be).

Self-direction An approach where learners are motivated to assume personal responsibility and collaborative control of the cognitive (self-monitoring) and contextual (self-management) processes in constructing and confirming meaningful and worthwhile learning outcomes (Garrison, 1997).

Self-reflection Examination, contemplation, and analysis of one's thoughts, feelings, and actions (American Psychological Association, 2018b).

Self-regulation Learners being proactive in their efforts to learn because they are aware of their strengths and limitations with learning and because they are guided by personally set goals and task-related strategies involving self-motivation and behavioural skill development and involves the selective use of specific processes that they will personally adapt to the learning task (Zimmerman, 2002).

Spatial Ability The capacity to generate, retain, and mentally manipulate visual images in two- and three-dimensional space. In engineering, it supports tasks such as interpreting drawings, imagining transformations, and reasoning about spatial relationships. It can be developed through training and practice. Derived from Buckley et al. (2018) and Johri and Lohani (2011).

STEM Science, Technology, Engineering, and Mathematics.

STEAM Science, Technology, Engineering, Arts, and Mathematics.

Subject Can refer to a topic within a discipline, for instance, the subject of mathematics, but may also refer to a self-contained, credit-giving educational unit. In the latter meaning this handbook employs the term *module*.

Sustainable Development Goals (SDGs) a set of 17 goals as call to action for the 2030 Agenda for Sustainable Development which were adopted in 2015 by all United Nations (UN) members, highlighting the connections between the environmental, social, and economic aspects of sustainable development. (United Nations, 2015)

Teamwork - Collaborative Goal Setting Teamwork refers to the coordinated actions of two or more individuals to achieve a common goal (Driskell et al., 2018; Xyrichis & Ream, 2008).

Teamwork - Diverse, intercultural, and inclusive teamwork (*including non-homogeneous, cross-cultural understanding and inclusive collaboration*) Ability to understand cultural differences, recognize their importance or benefit and stimulate cooperative teamwork among people of different cultures and the ability to work in teams with people of different abilities, gender, backgrounds, and across hierarchical frameworks (Leandro Cruz & Saunders-Smits, 2019).

Teamwork – Engagement Shares information and knowledge with team members and shows engagement with teamwork (Leandro Cruz & Saunders-Smits, 2019).

Teamwork - Goal Setting in Teams Ability to establish goals balancing self and team interests (Leandro Cruz & Saunders-Smits, 2019).

Teamwork - Multi-/Inter/Transdisciplinary teams (beyond STEM and including AHSS) Ability to collaborate with team members of engineering disciplines as well

team members from other disciplines, including clients (Leandro Cruz & Saunders-Smits, 2019).

Technical Skills *"Skills and competencies ranging from the foundation and application of science to the applied mathematical and computational skills necessary to develop technical solutions in the sense of innovation and current demands"* (SEFI, 2025).

Third Cycle Degree Student Refers to the third step in the Higher Education Degree Cycle under the standardized European Higher Education Area framework. This is typically a PhD-level programme, lasting 3-4 years. Entry requirements are typically either a First and/or Second Cycle degree or equivalent. (EHEA, European Higher Education Area, 2018).

Transdisciplinary Skills *"Skills and competencies that afford an outward facing, broader appreciation and active engagement with traditional and non-traditional sources of knowledge from both academic and non-academic domains. These encompass skills related to ethical decision-making, sustainability and social responsibility"* (SEFI, 2025).

Transferable Competencies and Skills Competencies and skills that are needed to *"adapt to various life contexts and that people can potentially transfer to different social, cultural or work settings"* (UNICEF, 2022).

UK-SPEC Standard for Professional Engineering Competence and Commitment for the United Kingdom. A document that explains the competence and commitment requirements that engineering professionals must meet to qualify for professional titles such as Chartered Engineer. (Engineering Council, 2020)

Undergraduate Term used to refer to learners in First Cycle Degree Programmes.

Visualisation Skills *"The ability to construct, interpret, and mentally manipulate ideas using drawings, diagrams, digital resources, and other visual media. These skills are anchored in the cognitive capacity known as spatial ability, which, while demonstrably trainable, hinges not only on curricular design but also on learners' cognitive flexibility"* (Al Kakoun et al, 2026).

VUCA abbreviation for Volatility, Uncertainty, Complexity, and Ambiguity – term first coined by leaderships experts Bennis and Nanus as part of their theoretical work on leaders and how they should navigate turbulent and uncertain environments. (Bennis & Nanus, 1985)

Washington Accord An agreement, started in 1989, among signatory entities responsible for accrediting tertiary-level engineering qualifications from across the globe to mutually recognize each other's accredited engineering degrees to aid global mobility.

Wicked Problems Challenges that are dynamic, complex, interconnected and not easily solved (Buchanan, 1992; Mazzucato, 2018).

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Contributor Statement

Table B.G.1 Credit Contributor Statement

Conceptualization	Gillian Saunders-Smits
Data curation	Gillian Saunders-Smits
Investigation	Gillian Saunders-Smits, Lynn van den Broeck, Esther Perea Borobio, Thies Johannsen, Angeniet Kam, Oscar van Putten, Ryan Grammenos, Jevgenija Prisutova, Kurt Coppens, Esther Ventura Medina, Emanuela Tilley, Matteo di Benedetti
Writing - original draft	Gillian Saunders-Smits, Lynn van den Broeck, Esther Perea Borobio, Thies Johannsen
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Gillian Saunders-Smits (0000-0002-2905-864X) is an Associate Professor at Delft University of Technology in the Netherlands with 25+ years of experience in teaching engineering (aerospace, mechanics, and robotics) and engineering education research. Her current research focuses on competencies and skills for future engineers and their implementation in curricula using active learning.

Lynn van den Broeck (0000-0002-6276-7501) is a postdoc at KU Leuven. She is responsible for educational professionalisation, TA training and co-chair of the SEFI

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Esther Perea Borobio (0000-0002-2107-5867) is a Senior Lecturer in Engineering Management at Ravensbourne University London, with 10 years' industrial experience and 20+ years' experience teaching professional competencies, engineering design, and project management. Her research focuses on curriculum and module design to embed professional competencies in engineering courses using active learning pedagogies.