



# QUACING Agency

Agency for the Quality Certification and

EUR- ACE Accreditation of Engineering Study Programmes

# Strategic Intents 2023-2025

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## 1. Introduction

This first Strategic Plan of the QUACING Agency responds to the need to formalize in a single document the goals to be reached, the activities to be carried out, as well as the resources required to achieve them. In fact, although the decision-making bodies of the Agency have always operated according to the strategic guidelines underlying the statutory objectives of the Association, a specific document for these purposes was not yet available.

Therefore, it has the dual purpose of providing the operational track for the structures of the Agency and of informing stakeholders (Academic Institutions, Bodies and Companies in the world of work, professional associations, etc.) about the objectives to be pursued in the next period and the activities to make them happen.

In order to identify the objectives, the Board of Directors, the Steering Committee and representatives of the interested parties were consulted. A sincere thanks goes to all those who have contributed with ideas and suggestions for improvement.

## 2. A brief history of QUACING

The QUACING Agency was established in 2010 and since September 2012 has been authorized to issue EUR-ACE® accreditation by the European Network for Accreditation of Engineering Education (ENAE). The founding members of the current social structure of the QUACING Association managing the Agency are the National Council of Engineers - (CNI) and the Conference for Engineering - (CoPI) who signed the Statute in December 2015.

CoPI has participated from the beginning in the development of the EUR-ACE accreditation system mainly through the contributions of profs. Giuliano Augusti and Alfredo Squarzoni. CoPI has also played an active role in the development and definition of the EUR-ACE Standards and related procedures for the accreditation of Engineering Programmes. CoPI promoted the establishment in Italy of an Accreditation Agency similar to those existing in other European countries.

The accreditation activity of the QUACING Agency, which began in 2012, was however slowed down by the prospect of a national accreditation system assigned to the National Agency for the Evaluation of the University and Research System (ANVUR). In fact in 2014 ANVUR launched the National Accreditation procedures at Institutions and Study Programmes levels (AVA System). Due to this fact, Italian Universities (and consequently Engineering Schools) have long focused on ANVUR national accreditation, thus reducing their interest in EUR-ACE accreditation.

Subsequently, the context of accreditation in Italy was better defined. In fact, ANVUR accreditation concerns Universities and the whole of its study programmes. Therefore, it cannot be considered an accreditation according to a specific international standard, especially for study programmes, such as those of Engineering which prepare for “regulated professions”. Furthermore, in June 2016 QUACING obtained 'formal recognition' by ANVUR. In particular, the ANVUR Board of Directors has recognized that the QUACING Guidelines for the Quality Assurance of University Degree Programmes in Engineering in line with the AVA and EUR-ACE approaches (QUACING Model) and the procedures and Evaluation

Reports aimed at EUR-ACE accreditation drawn up following external evaluation visits, comply with European and national standards.

This clearer definition of the scenario has led to a moderate revival of the interest of Engineering Schools for EUR-ACE accreditation. In fact, before the start of the COVID pandemic in 2020, about 30 new Degree Programmes (first or second level) have obtained the EUR-ACE label.

In the two-year period 2020-22 the accreditation activity was slowed down due to the restrictions induced by the pandemic emergency. Like many other European Agencies, QUACING consequently approved and published the procedures for online assessment visits. They have been applied for various Degree Programmes that required renewal of accreditation. As of 2022, visits resumed in the face-to-face mode.

In 2021, the Consiglio Nazionale dei Periti Industriali e dei Periti Industriali Laureati (CNPI - National Council of Industrial Technical Experts and Graduate Industrial Technical Experts) joined the Association as an ordinary member. Furthermore, in view of the revision of the National Ministerial Regulation about the organization of the University Degrees, in order to be able to extend the activities of quality certification and accreditation to Study Programmes of other classes that present significant training contents in the basic and characterizing areas of the engineering, in 2022, QUACING proceeded to a revision of the Statute aimed at this enlargement.

### 3. Mission, Vision, Values

#### Mission

*From the Statute of the Association art. 4.3:*

*"... The Association has as its object:*

- the certification of the quality of the Study Programmes belonging to the Engineering classes, or to other classes with significant contents similar to those of the basic areas and characterizing the engineering classes;*
- the EUR-ACE accreditation of the Study Programmes (SP) in engineering, as indicated in Article 1;*
- the promotion of the quality of the SP in Engineering or other degree classes with significant content in the basic and characterizing areas of the engineering classes and the development of a culture of quality among the personnel who work in favour of these SP;*
- the promotion of correct information on the quality of the Engineering Study Programmes or other degree classes with significant content in the basic and characterizing areas of the engineering classes, at national and international level;*
- the promotion of the recognition of qualifications in Engineering or other degree classes with significant content in the basic and characterizing areas of the engineering classes in Europe and beyond ... "*

The Mission of QUACING, based on the statutory indications, is the organization and implementation of certification, accreditation, expert training and dissemination of the culture of evaluation.

## Vision

Contribute to building a community of people interested in spreading the culture of quality and the continuous improvement of the training service provided to graduates and, in general, to all national and international stakeholders (Academic Institutions, the world of work, professional associations, etc.).

## Values

- Independence, objectivity and transparency in management
- Responsibility, professionalism and ethical duty towards people and institutions
- Transparency and reliability of information

## 4. Stakeholders and expectations

In order to fully define the Agency's objectives over the next three years, it is essential to identify the needs and expectations of the Stakeholders. For this purpose, Table 1 summarizes the identified stakeholders and the corresponding needs / expectations.

**Table 1**

<b>Stakeholders</b>	<b>Needs/ Expectations</b>
Laureati in Ingegneria	<ul style="list-style-type: none"><li>• Access the Eur-Ing title issued by FEANI (Federation Europeenne d'Associations Nationales d'Ingenieurs)</li><li>• Have a degree recognition that facilitates the mobility promoted by the EU Directive on the recognition of professional qualifications</li><li>• Have the assurance assessed by an independent body that the SP fulfils the training requirements for access to the profession of engineer</li><li>• Have the assurance that the training received in the SP has been designed and implemented for the full achievement of learning objectives defined in accordance with recognized European standards for quality engineering training</li></ul>
Academic Institutions/ School/Faculty/department/Study Programme	<ul style="list-style-type: none"><li>• Have an assessment carried out by a qualified and independent body of the quality of the Engineering Degree Courses in providing the skills required by the world of the profession</li><li>• Obtain greater attractiveness for potential students to choose the Study Programme, ensured by the possession of the European EUR_ACE label</li><li>• Ensure graduates that they will receive quality training for admission to subsequent levels of education</li></ul>
Institutions/Companies of the job market	<ul style="list-style-type: none"><li>• Have an independent assessment of the quality of the Study Programme in Engineering achieved by the candidates to be recruited</li><li>• Have the assurance that the skills obtained by candidates to be recruited correspond to internationally recognized</li></ul>

	standards well above the minimum standards established by national laws
Professional Registers	<ul style="list-style-type: none"> <li>• Have an assurance that the graduates are equipped with the skills required for admission to the professional market</li> <li>• Ensure that registered members graduated in SPs that received the EUR-ACE label can access the Eur-Ing title issued by FEANI (Federation Europeenne d'Associations Nationales d'Ingenieurs)...</li> </ul>
QUACING Founding Members (CoPI e Consiglio Nazionale degli Ingegneri)	<ul style="list-style-type: none"> <li>• Promote collaboration between the professional and academic world for the continuous improvement of engineering education</li> <li>• Promote training and dissemination activities about the evolution of the engineering profession</li> </ul>
University Ministry and national Accreditation Agency (ANVUR)	<ul style="list-style-type: none"> <li>• Ensure that the SPs accredited by QUACING meet learning level requirements corresponding to or higher than those required by the national accreditation regulations</li> <li>• Ensure that the skills acquired by graduates in SPs that received the EUR-ACE label correspond to international standards</li> <li>• Promote the mutual recognition of engineering training levels at an international level</li> </ul>
Reti e Agenzie di certificazione e accreditamento	<ul style="list-style-type: none"> <li>• Promote the mutual recognition of training levels at an international level</li> <li>• Contribute to disseminating internationally recognized standards that attest to quality training</li> </ul>

## 5. Strategic Intents

The definition of the objectives for the next three years derives from an analysis of the significant factors that could have an impact on the Agency's activities and from a consultation process that involved the Board of Directors, the Steering Commi and representatives of the interested parties.

### 5.1 Expand the number of national and international accreditations

The requests for new accreditations are still limited if compared with those of other European countries or members of the ENAEE. The origin of engineering graduates from a EUR-ACE accredited degree program (also due to the legal value of the qualification in Italy) is not yet adequately valued in the internal labour market and therefore the accreditation of the courses is not perceived as an interesting goal to achieve for a part of the academic community.

### Actions to be carried out

Develop a more systematic and extensive information and promotion activity about the advantages of the EUR-ACE label both aimed at stakeholders in the context of national and international conferences, scientific and technical workshops, and also using different information channels to reach a wider audience

### Indicators

- Information and promotion initiatives implemented

## 5.2 Extend the Agency's international visibility and accreditation activities

The growing demand for professional figures, especially in certain engineering sectors (e.g. those of information technology, ICT technologies and energy) concerns not only European countries, but also those of neighbouring geographical areas, such as North Africa and the Balkan region. This push also determines the birth of new institutions for higher education, including private ones, which aim to train the engineers required by the labour market either in those countries or in Europe. Certification according to international standards, such as EUR-ACE, therefore appears appropriate to ensure that engineering graduates from these areas and institutions are equipped with solid skills. Moreover, the governmental authorities of some nations (e.g. Tunisia), in order to allow to operate the considerable number of recently established private universities, have in fact requested the quality certification of engineering training according to the EUR-ACE standard. Any development of the Agency's activities in this direction is a natural evolution of the activities conducted by QUACING as part of the project funded in the Erasmus + MEDACCR program ("On-line Quality Assurance and EUR-ACE Accreditation of Engineering Programs in Mediterranean Area" –CBHE 586452-EPP-1-2017) in which a Study Programme evaluation model aimed at accreditation was developed.

### Actions to be carried out

- Develop the network of contacts with the university system of the countries of North Africa, starting with Tunisia, by participating in meetings and events concerning higher education in the engineering field.
- Carry out support activities for Study Programmes in North Africa that intend to apply for EUR-ACE accreditation using the resources available both in terms of documentation and expert evaluators.
- Participate in the preparation of projects, hopefully led by an Italian university (in the wake of the previous MEDACCR, QUEECA, etc. projects), to be presented in the context of European calls for tenders aimed at "Capacity Building in the field of higher education" (CBHE)

### Indicators

- Contracts for the accreditation of foreign Study Programmes
- Participation to projects for the extension of the EUR-ACE label to other geographic areas

## 5.3 Keep the accreditation requirements and procedures updated

During 2022, in view of the start of the second cycle of visits for the periodic accreditation of the Universities and Study Programmes, ANVUR has published the new requirements of the so-called AVA 3 Model. Then ANVUR will publish the new Guidelines for the assessment of periodic accreditation requirements. Furthermore, in the ENAEE General Assembly of November 2021, following a review process, the new EUR-ACE Framework Standard and Guidelines (EAFSG) were approved.

#### Actions to be carried out

- Carry out the revision of the QUACING Guidelines to maintain due alignment with national references (ANVUR) and the new ENAEE EASFGs.

#### Indicators

- QUACING Guidelines revised

### 5.4 Expand and strengthen the corporate structure

Taking into account the expansion prospects that could be introduced in the national reference legislation for the current Degree Classes with the extension to "professionalizing" classes with significant training content in the basic and characterizing areas of the engineering classes, in 2021 the National Council of Industrial Experts and Graduate Industrial Experts (CNPI) has joined, as an "ordinary member", the Association.

The involvement of other Bodies and Associations representative of sectors of the world of work (such as National Association of Industrial Companies - Confindustria) in the QUACING corporate structure constitutes an interesting development in order to acquire indications concerning the required specific skills of engineering graduates.

#### Actions to be carried out

- Promote opportunities for discussion aimed at defining a more structured collaboration and the possible entry into the QUACING corporate structure of Institutions and Associations (such as Confindustria) interested to the engineering profession and education.
- Review the composition of the Steering ensuring ample representation to the members of the corporate structure and greater operational effectiveness for the purposes of possible expansion of the Agency's activities.

#### Indicators

- Presence of new partners in the corporate structure
- Collaboration agreements

## 5.5 Strengthen the training and updating activities of the registered evaluators with attention to the enlargement of the female component

The need for training and continuous updating of the evaluators included in the QUACING Register of experts is an aspect of growing importance at European level and also underlined in the recent ENAEE EAFSG Forum in progress, concerns the periodic training / updating of the evaluators of the Agency. Furthermore, taking into account the progressive increase of graduates and teachers of Engineering, the possibility of increasing the female gender component should be pursued also through the involvement of Associations such as IEEE Women in Engineering.

### Actions to be carried out

- Plan the training / adjournment activities (to be carried out also online), of the expert evaluators present or to be included in the QUACING register that stimulate greater participation of male and female professors, professionals and students.

### Indicators

- Training activities carried out
- Number of experts and experts included in the QUACING Register

## 6. Resources

The financial, technological and personnel resources necessary to achieve the objectives must be carefully considered. They will be subject to in-depth and systematic evaluation and monitoring by the Board of Directors, in particular on the occasion of the approval of the budget and final balance.

In any case, as far as financial resources are concerned, the proceeds of the visits, excluding the expenses for the evaluation team, make it possible to manage the economic commitments associated with the activities to be carried out.

The technological resources required, essentially those necessary for the management of document flows and dissemination and promotion activities, are certainly already available or easily acquired without excessive economic burdens.

QUACING will continue to maintain an agile structure and therefore the personnel resources required are essentially those necessary for the accreditation activities. In any case, the Board of Directors will carry out a systematic monitoring of the commitments, defining the appropriate priorities on the basis of the availability actually present.