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**Engineering Educators Pedagogical Training (ENTER)**



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## **ENTER NETWORK DESIGN**

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## **ENTER NETWORK**

## **DESIGN**

The main outcome of the ENTER project will be not only development of the 3-levelled modular iPET programme “Innovative Pedagogy for Engineering HEIs’ Teachers”, but also establishment of the ENTER network based on creative cooperation and cross-cultural communication. ENTER network currently consists of 13 founding partners - operating members of ENTER consortium. Each of these institutions has autonomous pedagogical engineering training system but thanks to the project they get united into the ENTER network for widespreading the iPET system of pedagogical engineering training in Europe, Kazakhstan and Russia. ENTER network will be a cost-effective solution to the problem faced by the majority of HEIs, i.e. the lack of investment in academic staff upskilling. The network allows to share between partners the costs related to iPET programme design, development and international recognition.

The ENTER network approach aims at increasing the number of engineering educators enrolled in pedagogical and professional advanced training programs. Thus it aims at enhancing the quality of engineering education, first in ENTER member HEIs, and then in other HEIs of Europe, Kazakhstan and Russia. ENTER network is a complex mechanism which will work and evolve in the following directions:

- a) development and implementation of iPET programme for pedagogical engineering training;
- b) enforcement of a rigorous peer-reviewed quality control of iPET programme via ENTER quality management standards (QMS);
- c) implementation of iPET programme accreditation procedure under ENTER QMS;
- d) sustainable development of iPET network: seamless addition of new members, establishment of ENTER Register for keeping record of the trained and certified professional engineering educators.

Through the project lifetime the two main processes go in parallel - development of iPET programme and development of iPET programme quality management standards (QMS) (Fig. 1). Bearing in mind the need for international accreditation, these 2 processes are complemented by the process of selecting the EUR-ACE Accreditation Agency and defining the selection criteria it has to meet.

iPET programme has modular structure, i.e. iPET-3 includes modules of both iPET-1 (2 ECTS credits) and iPET-2 (8 ECTS credits). iPET-3 equals to 20 ECTS credits and leads to international accreditation as “Engineering Educator”. Modular structure ensures a sustainable improvement path for educators and gives them possibility to undergo training per modules provided by different ENTER network members. Series of project workshops held in Almaty, Bratislava and eventually in Tallinn will form the curriculum and define subjects of the iPET

programme, outline and confirm educators' targeted competencies, approve the content and select teaching, learning and assessment materials and tools. Thus by the end of project meeting in Tallinn (end of September 2020) the iPET programme is to be finalized and ready for piloting within ENTER network.

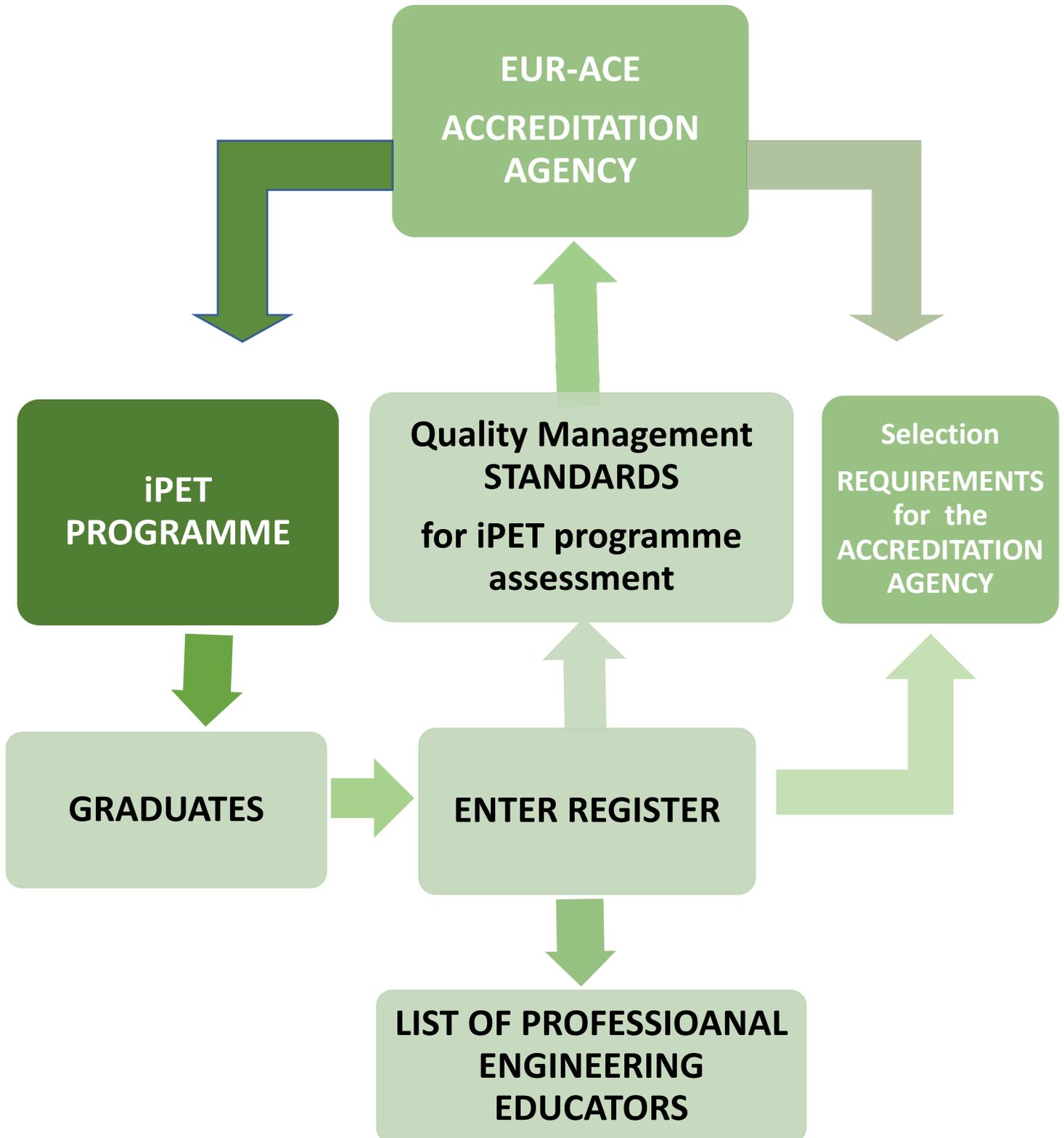


Fig. 1

At the same time development of Quality Management Standards (QMS) for iPET programme assessment will proceed during the series of project workshops in Almaty, Rostov-on-Don and eventually Kazan. ESG requirements will serve a basis for ENTER QMS. By the end of the project meeting in Kazan (middle of September 2020) the criteria and performance indicators for assessing the quality of iPET programme will be determined, crystalized and approved by Partners.

By the time ENTER QMS are finalized the selection of appropriate EUR-ACE Accreditation Agency will also be finished. The Agency is to meet the requirements defined by the ENTER Network - it should be an independent agency (preferably EUR-ACE member) be entitled to carry out professional accreditation. The ready QMS will be provided to the selected Agency. The Agency might make adjustments to the proposed ENTER QMS but should generally accept and follow them for quality assurance of iPET programme. As a result of accreditation process the iPET programme will become internationally recognised and get national license in Kazakhstan and Russia. The accreditation offered under ENTER label will not duplicate the existing offers such as International Engineering Educator Certificate ING-PAED provided by IGIP. ENTER accreditation, although referring to IGIP certification, will go further and will offer the accredited engineering pedagogical training which is customized and adapted to educators' and HEIs' needs in national and regional context and covers multiple areas of engineering.

In perspective ENTER network may offer accreditation under ENTER QMS to other engineering pedagogical training courses (different from iPET) existing and implemented in different universities beyond ENTER consortium provided such courses meet the ENTER QMS. Through extending the scope of accreditation the ENTER network will ensure its growth and addition of new members, thus reach sustainability.

iPET programme graduates along with graduates of other pedagogical training courses accredited under ENTER QMS will receive diplomas certifying their status of Professional Engineering Educators. Upon individual application the graduates will be recorded in the ENTER Register which is one of the key elements of ENTER network. ENTER Register will be formed of the ENTER consortium representatives, it will be responsible for keeping and updating the List of professional engineering educators (iPET programme graduates), continuous upgrading of ENTER Quality Management Standards, defining rules and regulations for selecting the Accreditation Agency.

The present design of ENTER network implies interest of present and new partners to EU-cooperation format of Capacity Building. It provides great sociological experience - building capacity of Engineering HEIs and being a part of new international collaboration. This multicultural network is also the unique opportunity to develop engineering educators' skills essential in the globalized and multicultural world.