

ANNUAL REPORT

2018-2019



What is FEANI ?

ANNUAL
REPORT

2018-2019

FEANI NATIONAL MEMBERS



	AT ÖIAB - Österreichischer Ingenieur-und Architekten-Verein		KZ KasZEE - Kazakhstan Society of Engineering Education
	BE CIBIC - Comité des Ingénieurs Belges / Belgisch Ingenieurscomité		MK IMI - Engineering Institution of Macedonia
	BG FNITS - Federation of Scientific Technical Unions in Bulgaria		MT COE - Chamber of Engineers
	CH SIA - Swiss Society of Engineers and Architects STV/UTS - Swiss Engineering STV		NL KIVI - Koninklijk Instituut Van Ingenieurs
	CY ETEK - Technical Chamber of Cyprus		NO NITO - The Norwegian Society of Engineers and Technologists TEKNA - The Norwegian Society of Chartered Scientific and Academic Professionals
	CZ CSVTS - Czech Association of Scientific and Technical Societies CKAIT - Czech Chamber of Chartered Engineers and Technicians		PL POT - Polish Federation of Engineering Associations
	DE DVT - Deutscher Verband Technisch-Wissenschaftlicher Vereine		PT Ordem Dos Engenheiros
	DK IDA - Ingeniørforeningen i Danmark		RO AGIR - The General Association of Engineers in Romania
	EE EAE - Estonian Association of Engineers		RS SITS - Union of Engineers and Technicians of Serbia
	ES IIE - Instituto de la Ingeniería de España INGITE - Instituto Nacional de Graduados en Ingeniería e de Ingenieros Técnicos de España		RU RUSEA - Russian Union of Scientific and Engineering Associations
	FI UIL - The Union of Professional Engineers in Finland TEK - The Finnish Association of Graduate Engineers DIFF - Ingenjörerna i Finland TFIF - Tekniska Föreningen i Finland		SE SVERIGES INGENJÖRER - The Swedish Association of Graduate Engineers
	FR IESF - Ingénieurs et Scientifiques de France		SI ZDIT - Association of Societies of Engineers and Technicians
	GR TCG - Technical Chamber of Greece		SK ZSVTS - Association of Slovak Scientific and Technological Societies
	HR HIS - Hrvatski Inženjerski Savez		TR Turkish National FEANI Committee TMMOB (UCTEA)
	IE Engineers Ireland		UA SPIO - Union of Scientific and Engineering Associations of Ukraine
	IS VFI - Association of Chartered Engineers in Iceland		UK EC - The Engineering Council
	IT CNI - Consiglio Nazionale Ingegneri		



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STATEMENT BY THE PRESIDENT

President Prof. José VIEIRA



In FEANI we are very concerned and committed to understand the societal needs and the role of the engineer as a professional with the technical skills and ethical courage to solve the great problems facing the planet for the benefit of humanity and protect the environment. Clearly society is facing new threats and challenges: growing need for alternative clean energy sources, food and fresh water shortages that are prevalent in many regions of the world, and growing concerns for the environment.

We believe that future technical solutions alone are not enough to meet business and societal needs and engineers must take leadership roles not only on technical projects but also in society at large. This type of concern materialized, in this period, in the launching of several actions, of which the commitment to the United Nations Sustainable Developing Goals (SDGs) and the signing of memoranda of understanding with federations from three continents: America, Africa and Asia-Pacific can be highlighted.

In March 2018 a Working Group was formed whose main objective was to mobilise the FEANI National Members to embrace and support the SDGs and by doing so to advance the sustainable development agenda within the FEANI network. One result of the work of this Working Group was the drafting of the FEANI Declaration on SDGs that was approved at the General Assembly in Valletta, Malta, in October 2018.

As the voice of engineers in Europe, we have worked to promote effective international cooperation in mutual recognition of engineering education and capacity building standards with other similar international federations. We believe that with these initiatives, we make a great contribution to provide global networking opportunities for members to communicate and facilitate the implementation of common projects in the field of professional development of engineers in different regions of the globe. Thus, in 2019, FEANI signed three bilateral memoranda with UPADI (Pan





American Federation of Engineering Societies), FAEO (Federation of African Engineering Organisations), and FEIAP (Federation of Engineering Institutions of Asia and the Pacific) in July, September and November, respectively. In these memoranda the parties agreed to cooperate and work together to establish common strategic programs for the development of the engineering profession in Europe and on those three continents.

STATEMENT BY THE SECRETARY GENERAL

Secretary General, Dirk BOCHAR

Since its foundation in 1951, the FEANI community has grown in number of National Members. Today the geographic boundaries of our network of 32 National Engineering Organisations largely coincides with those of the European Higher Education Area, comprising approximately 6 million engineers, covering all engineering disciplines. It was therefore justified that with the approval of our FEANI Strategic Plan 2018-2023 at the FEANI General Assembly in Vienna, October 2017, we could take the initiative to develop a new platform enabling the engineering community to have a larger impact on society. The establishment and development of this platform - which we entitled and inaugurated as the Engineers Europe Advisory Group (EEAG) - intends to be an instrument of which its first and foremost objective will be to ensure a more harmonized European voice of the engineers at European and international level. The preparation, inauguration and further development of the EEAG have definitely been exciting and challenging tasks.

Preparation : In order to be fully representing the interests of the engineering community and not merely those of the individual engineer, we realized that the input of all concerned stakeholders would be paramount. We needed to determine "what" exactly we wanted to achieve and with "whom" we would need to do that and in which "mode", in order to be successful. For this initiative to succeed, we organised a first preparatory meeting on **11 June 2018** in Brussels with eight other European Organisations involved with the engineering profession and engineering education. We identified three major goals to pursue in common :

- First, the need to become more involved with industry and European employer Organisations



- Secondly the further branding of the status and position of the engineer in society in the widest sense of the word : making sure we have sufficient engineers in the future (STEM), but also sufficiently well-educated engineers to meet future challenges (LLL).
- Thirdly we wanted to focus on the societal challenges of today : the digital society in its broadest meaning.

Development : With those three major and generic objectives at hand, we were able to start building a business case which would be appealing for others to get involved



in. Therefore we needed to identify and emphasize the advantages which the EEAG could offer the targeted stakeholders : the EEAG as a bridge between students, academics, businesses, organizations and policy makers. Reaching out to other European umbrella organisations working in the field of the engineering profession and engineering education seemed therefore a logical first step. To be convincing we looked for common ground and synergies while establishing a level playing field with the intention to have a menu which would be broad enough to attract various stakeholders and to indicate that our objectives complied and were in accordance with the priorities of the EU-policies. Having established the three major goals on “**what**” to do, we concentrated on the added value and possible longer terms outcomes the EEAG could generate. We came to the following list :

- **Education** : Developing more cooperative mechanisms between the stakeholders could ensure policy making dialogues about common issues affecting the engineering education such as, for instance, the development of common training frameworks, mobility instruments (European Engineering Education Database), the recognition of engineering qualifications and microcredentials, educational and professional standards, validation and accreditation of engineering programs, professional development of teaching staff, etc. At the same time and in doing this we would be supporting higher education institutions and our FEANI national member organisations in their internationalisation and modernisation efforts.
- **EU Policy making** : Advising the EU Institutions with a stronger voice on the “future of work” (e.g. the circular economy, robotics and artificial intelligence) and policy issues related to apprenticeships, non-formal education, future training needs of engineers (VET, LLL, CPD) for instance around digitalisation, media literacy and other emerging and enabling technologies.
- **Industry** : Identifying barriers and obstacles faced by the engineering industry (such as bridging the skills gap). These efforts could indirectly support the future European industrial competitiveness also in view of the challenges of an ageing workforce. Other subjects to consider would relate to labour market developments, employer needs, etc. while conducting surveys, interviews and academic sessions with the stakeholders concerned.

The next step related to identifying the most appropriate “**mode and format**” under which we could successfully attract stakeholders to sign up to the EEAG as a co-operative consortium. Making the EEAG a formal new body with official Terms of Reference would not be perceived as the most appropriate way forward. We therefore agreed to shape the commitment and support of interested stakeholders to the above ambitions into a Letter of Intent which expresses the wish to upgrade, reinforce and promote the voice of engineers in Europe. In this way we were able to attract the involvement and co-operation of representatives from other European umbrella Organisations and universities, respecting and guaranteeing their legal and financial independence. By **18 September 2018**, the first 11 stakeholders signed the EEAG Letter of Intent and the EEAG was inaugurated.



Having now officially established and started the EEAG as an informal network, we wanted to develop it further as a European forum exclusively for the involved stakeholder management to network, discuss, meet and exchange at a twice-per-year think-thank gathering. As a result two more EEAG events were organized on **7 March and 11 September 2019** and more stakeholders signed up. At year-end 2019 the EEAG had 27 associated partners (see **Annex** at the end of this Annual Report). We know that they are supportive to our intentions.

Next Steps : We realized that once we would have a sufficient number of stakeholders from various categories (academia, professional organisations, industry) signing up and supporting the EEAG initiative, we could officially launch the EEAG. However, we would also need to focus on a more hands-on action plan or particular project to continue capturing their attention, involvement and interest. We therefore asked many of them to engage as a partner in developing a common project, entitled **E4E** or “**Engineers for Europe**”. Twelve of the 27 partners did and a first preparatory meeting was held on **7 June 2019**.

This project embraces new trends in engineering education and boost industry innovation by co-creating and rolling out **five new tools** in six pilot countries (FR, DE, IE, IT, PL, PT).

“Engineers for Europe” (E4E)



Consortium Partners



Associated partners



It is a pan-European alliance bringing together engineering schools, companies and associations in a shared vision for 2030, to benefit students, lifelong learners, educators, employers, policymakers and society at large. Within the five main outputs E4E will monitor the engineering profession in Europe, list the industry’s core competences in a compass, register micro-credentials in engineering fields, validate engineering competence with a certification badge and match engineering expertise supply and demand in an app. This project will be submitted for funding under ERASMUS+ in 2020 and we trust, will receive a positive evaluation.

In any case and independent thereof, preparatory work has already started with regard to the **E4E monitor** with the development of three publications “Do we Know our Engineers”, “Engineering Education in Practice” and “What do Engineers want”. It is intended to up-date and refresh these studies in 2021, 2022 and 2023.

The **E4E-competences compass** will provide learners, educators and decision makers in academia, industry and the public sector with insights into the current, emerging and future skills needed in engineering.

The **E4E micro-credentials register** will draw on work already done by ENIC-NARIC centres and the European MOOC consortium and will list thousands of online and blended courses that have been positively assessed by E4E partners: it will serve students, graduates and successful professionals.

The **E4E competence badge** will validate an individual’s engineering skills, indicating learning outcomes linked to the eight EQF-levels. These badges will be kept in EuroPass compatible wallets and count towards individual learning outcomes.

Finally, the **E4E matching app** will connect learners, jobseekers, qualified professionals and project partners in engineering education, innovation and the labour market with temporary and permanent positions, funding opportunities, traineeships, coaching and mentorships.

E4E is truly an ambitious project which will ideally be finished by the end of our strategic plan. It has been rewarding as FEANI Management to be in touch with so many interesting and motivated partners, to hear and sense their thoughts and ideas regarding common concerns. We will in the E4E-project continue to work hard and further articulate our action plan in the EEAG. The EEAG is there to stay as an accomplishment of implementing our strategic plan.. ■



STATEMENT BY THE VICE-PRESIDENT

Vice President, Ralph APPEL



“We are living in somewhat uncertain, but exciting times”. What will appear to most people as an evergreen statement, has been proven quite true in the recent past. Climate change is upon us, smart mobility and energy change are on the table, concepts for circular economy are emerging. At the same time, the Corona-pandemic is confronting our society and economic systems with substantial new challenges. What does that have to do with engineers, some of you will ask?

Well, I believe, engineers are part of the solution. We need to and are capable of developing answers for the future. Take the example of product development. Our current linear economic system needs to be further developed into a “circular economy”. We can no longer afford to develop and sell products that, after a relatively short lifespan, end as garbage. The energy sector as well as the mobility sector need to develop solutions for low or zero carbon systems. The UN Sustainable Development Goals (UN SDGs) overall will require technical solutions in order to be achieved. Engineers are key in providing those solutions.

Internationalization and globalization have been a reality and a success for decades. We live in times of global division of labor and international trade. However, as we have seen on several occasions, the systems we have gotten used to, can be easily destabilized. The recent Corona-crisis is showing that engineers again play a vital role in preparing us for such events, e.g. by developing crisis proof communication infrastructures, by setting up

energy and water supply systems that can be controlled remotely and by working with doctors to build medical equipment that saves lives.

These are only a few examples that show the important role engineering and technology play in our modern lives and societies. Therefore, we as engineering associations cannot limit our role as “the Voice of Engineers” to topics related to our professional issues. Not only do we have to increase our efforts to be heard by political decision-makers on all levels in topics as mentioned hereabove, we must also continue to attract young people, by showing that being an engineer is not only about having a good job and a good income. It is about making a difference, about making the world better every day.

Is the engineering profession up to the task? Well, engineers are already pretty good in solving technical problems. Nevertheless, we must get accustomed to including non-technical perspectives into our problem-solving approaches. To that end, engineering education will have to be adapted to enable future engineers to cope with the upcoming societal challenges. Teaching and learning contents will have to change to include aspects like interdisciplinarity and dialogue skills, digital business models and data literacy to a larger proportion.

And FEANI? FEANI has started a change process at the General Assembly in Vienna in 2017. The member organizations have decided to follow the idea to further develop

FEANI into ENGINEERS EUROPE. Ever since, FEANI has successfully strengthened and enhanced its network, making FEANI’s voice stronger, to be heard in Europe and beyond.

I am looking forward to the continued successful development of FEANI as “The Voice of Europe’s Engineers”. ■

STATEMENT BY THE TREASURER

Treasurer, Ulf BENGTTSSON



Situation 2018

2017 was a year in which FEANI was able to take a significant turn in the corporate finances with a consolidated profit of EUR 85.296,- at year-end. Our corporate treasury had improved from EUR 366k in 2016 to EUR 454k in 2017, a positive tendency which continued in 2018. This together with the fact that the funds spent on project related services to the National Members doubled from 2017 to 2018 but still allowed for a positive consolidated result of EUR 4.458,- in 2018, was a rewarding observation and provided hope for the future in which further ambitious plans would come to fruition. At the same time total turnover in 2018 remained with EUR 568.005,- almost identical as in 2017 (EUR 569.870,-),

With the approval of the ambitious FEANI Strategic Plan 2018-2023 at the General Assembly 2017, we agreed to start a fundamental business and organizational transformation as indicated on the previous pages. For this to succeed - and the indications after one year of start-up and implementation seemed to indicate this was indeed the case - the FEANI Executive Board agreed to release the expected budgeted profit of EUR 35k for 2018 and to aim for a zero-result at year-end. This turned out to be a good decision to keep momentum and exposure in the setting up of the Engineers Europe Advisory Group (EEAG). In order to better meet its mission and to better interconnect with other stakeholders, FEANI continued in 2018 with opening doors to other stakeholder groups with the help of Hill+Knowlton as international strategy and communication consultants. This, in combination with the design and the protection of a new brand and examining the possibilities for EU-project funding, were activities which needed to happen in parallel, in order to take the EEAG further than merely its set-up and the start of an informal consortium. Once we had the official inauguration behind us and the stage was set, we pursued our efforts in 2019 with the development of a concrete work program to maintain credibility and enhance cooperation. The implementation of the FEANI Strategic Plan was and is progressing faster than expected. Through our investments we have built an external European network, in addition to our internal FEANI network of 32 member countries. Maintaining both networks is a huge task, but our perseverance led to a first initial success.

From the financial point of view another important structural change took place in 2018 with the successful revision of our corporate VAT-status. FEANI is now tax exempt for 58% instead of the previous 16%. This resulted in almost EUR 11k of VAT-recovery in 2018 from the previous years and will imply a systematic cost reduction of approximately EUR 14k p.a. for the following years.

Situation 2019

The EEAG evolved in 2019 from an informal consortium of like-minded partners into a partnership with common goal setting, resulting in the design of the Engineers for Europe or E4E-project on which work has already started, even without EU-funding. We developed and protected a new brand, we built an external network of meanwhile 27 European partners, screened the possibilities for EU-project funding, developed and sent in a large project proposal under ERASMUS+ and organized three conferences of the EEAG, with each time high level speakers and participants.

Further investments in implementing the appealing and challenging goals of the Engineers Europe Advisory Group and especially the revision of the "E4E" proposal required continued efforts for our repositioning and transformation. A co-operation contract was made with an external consultant and two EU-project experienced assessors, until the end of 2019. Despite a first qualification failure in July 2019, I believe that we must continue to pursue our endeavours and send in a modified project proposal later this year or in early 2020. Writing EU project proposals is a complicated and time-consuming effort. It will also require continued delicate administrative management, once approved. This, however, is an investment which will bring FEANI at a level where it deserves to be.

Unfortunately the funding remains uncertain. This is the reason why 2019 closed with a corporate loss of EUR 31k, which was, however, less than expected. This loss did not relate to excessive costs, but rather to lacking the budgeted income from three (3) FEANI National Member countries not having paid their membership fee. Nevertheless, every effort has been made in 2019 to meet the two most critical elements strategic goals : design and dispatch of an "EU project proposal" and developing the EEAG as an informal think-tank.

Situation 2020

Despite a 1,5% increase in membership fees, the departure of FI as a National Member will have an impact on the financial capabilities of the Organisation. Looking for alternative sources of income, be it from EU-funding or from corporate sponsorship from private stakeholders, will therefore become an inevitable necessity.

Having served as FEANI Treasurer for six years (2013-2019), I have enjoyed working together with the community of FEANI National Members, the Internal Auditors and the Secretary General. I am confident in expressing my support to the successful achievement of the corporate strategic goals. I wish FEANI a fruitful pursuit of these ambitious objectives, which I will keep on following from a distance. I thank all partners I have worked with over these years and my appreciation and thanks goes to all of them. ■

NATIONAL MEMBERS FORUM (NMF)

THE NMF Chair - Trond MARKUSSEN



In 2018-2019, the National Members Forum (NMF) regularly met twice a year in March/April and before the General Assembly in October, to exchange on the different priorities and challenges of the National associations. During the past years, the NMF meeting preceding the General Assembly has been combined with a conference on relevant topics for engineers. In 2018, the theme was “Digital transformation” and in 2019, we were in Iceland learning more about “Geothermal Energy”. Before the NMFs, the National Members had been asked to send an activity report with an overview of their relevant activities since the last meeting. These reports have been placed on the FEANI website together with the agenda for the meeting, allowing all members to have access to updated information on the activities conducted amongst

the other members’ nations. During each meeting, the representatives presented reports on their national activities and on the different regional meetings that took place in the past months. A survey has been conducted amongst the National Members to inquire whether they would be willing and able to establish a FEANI Working Group (WG) on three major identified topics for engineering: Science, Technology, Engineering and Mathematics (STEM), UN Sustainable Development Goals (SDG) and Digitalization. The survey resulted in the conclusion that a majority was in favor of creating a WG on STEM and SDGs. Indeed, these two topics have been of great interest in the discussions during the NMFs, with reports on local initiatives and regional working groups. In the meantime, the FEANI WGs on STEM and SDGs have been created and are progressively building up, chaired respectively by Ms. Vjera Krstelj (HR) and Mr. Thomas Kiefer (DE). Further on the subject of STEM, FEANI has been approached by the University of Regensburg to participate in an initiative called the Global Talent Mentoring Hub - a large-scale research-based mentoring program for outstanding youth in STEM - and National Members were invited to provide mentors for this project. Other topics of interest, which have been addressed, are for example Continuing Professional Development (CPD), life-long learning, or the CALOHEE project. The National Members have also been informed and consulted on the initiation and progression of the Engineers Europe Advisory Group and the Engineers *for* Europe project, which received a positive appreciation. Overall, in the past two years, the NMF has evolved towards a new format, allowing more time to presentations and dialogue on best practices and to regional reports, and will keep moving in this direction. ■

EUROPEAN MONITORING COMMITTEE (EMC)

The EMC Chair - Eli HAUGERUD



Between 2018 and 2019, the European Monitoring Committee (EMC) has regularly met three times a year in different countries in Europe. It has awarded 207 EUR ING in 2018 and 232 in 2019, in a quite stable trend. During the past two years, the EMC has addressed several topics of great relevance for its activities. There has been a long discussion on whether the three FEANI products - the EUR ING title, the Engineering Card and the European Engineering Education Database (EEED) - should be brought together. However,

considering the decrease of the awarded Engineering Cards and the countries issuing them, it has been decided to keep the Engineering Card and EUR ING separated and to rather focus on improving the value of the latter, the possibility of introducing a validity period and the demonstration of CPD and by assessing learning outcomes. This ongoing work on the EUR ING criteria is closely linked with the challenge, long discussed in the EMC, to revise the EUR ING special cases and to evolve towards competence-based assessment. The CALOHEE project, in which FEANI is an associated partner, has also been of long interest to the EMC, who supported FEANI's involvement in its different phases. The TUNING CALOHEE framework could also be a valuable reference in the revision of the EUR ING title. The EMC will from now on send representatives to the CALOHEE project meetings. Another important task endorsed by the EMC these past two years was to ensure the updating of the new EEED since the convergence of the FEANI Index and the EUR ACE database, in order to have a tool as complete as possible, considering that it represents a unique selling point for FEANI. The EMC has also considered and supported the Engineers for Europe project, initiated by FEANI and submitted to the European Commission under the Erasmus + program. The EMC will take an active part in designing and implementing new innovative tools to better connect the world of academia and the world of work in the engineering field. Overall, the Committee has investigated new potential paths to improve the value of the FEANI products and initiate new collaborations with external partners. In the coming years, the EMC will pursue its activities with the same prospect for openness and progress. ■

REPORTS OF THE NATIONAL MEMBERS

REPORT OF THE AUSTRIAN FEANI NATIONAL COMMITTEE

OIAV //



Österreichischer Ingenieur-und Architekten-Verein

Year of Adhesion: 1951

Declared engineers: 5 000

Number of EUR ING: 477

Member associations: The Austrian National Committee for FEANI connects with the following Member Associations: Österreichischer Ingenieur-und Architekten-Verein (ÖIAV), Verband Österreichischer Ingenieure (VÖI), Österreichischer Verband für Elektrotechnik (ÖVE)

Eschenbachgasse 9 - AT-1010 Wien

Tel: + 43 1 5873 536-0

office@oiav.at

www.oiav.at

The years 2018 and 2019 have seen a number of activities to address the challenges the lack of engineers in Austria, keeping the high quality of service in the fields of standardisation, testing and certification as well as becoming more attractive to potential members, especially focusing on students and young people. It also related climate strategy and an environmentally conscious attitude.

This included:

- the re-organisation of the ÖVE Student Branch
- activities to attract more students for engineering studies
- development of a new strategy to successfully present the ÖVE in the social networks to keep present members informed as well as to attract potential new members
- introduction of the new installation standard ÖVE E 8101
- the setting-up of an Austrian-wide robotics platform
- preparation of an EUREL Field Trip for students in the 2020 (which may be cancelled due to the COVID-19 measures)
- "Girls tech up" - an annual event for girls to attract them for an education in the field of STEM, particularly in electro technology, electronics and communication technology
- organization of events such as the CEN/CENELEC General Assembly in June 2020 meanwhile has been cancelled due to the COVID-19 measures
- re-design of the video platform ScienceClip.at by focusing on topics like digitalisation, decarbonisation as well as robotics; intensifying activities with schools and teachers
- redesign of OIAV, the communication magazine of the OIAV
- realignment and formulation of new goals for OIAV with special attention to "digitization in construction"



REPORT OF THE BELGIAN FEANI NATIONAL COMMITTEE



Comité des Ingénieurs Belges - Belgisch Ingenieurscomité (CIBIC)

Year of Adhesion: 2008

Declared engineers: 54 000

Number of EUR ING: 327

Member associations: The main Member Associations connected with CIBIC are the Ie-net ingenieursvereniging, Fédération Royale des Associations Belges d'Ingénieurs civils, d'ingénieurs agronomes et bioingénieurs (FABI), Union Francophone des Associations d'Ingénieurs Industriels de Belgique (UFIIB)

Rue Hobbemastraat 2 - 1000 Brussels

Tel: +32 2 734 75 10 - Fax: +32 2 734 53 15

The respective CIBIC member organizations were involved in a number of activities defending the interests of its member engineers: creating chances for engineers in education; raising awareness among politicians of the importance of "the calibration test" for engineering students; encouraging young people and girls to become engineers and therefore advocate structural measures in education, ensuring that young people are well prepared for the labour market and providing permanent training for engineers.

3th edition Week of the Engineer

For the third time, the "Week of the Engineer" was organized. From 18 to 24 November the organization has been putting the profession of the engineer in the spotlight through various events. The main challenge: industry 4.0 and especially its potential.

Engineering Radar

In November 2019 a third survey was conducted on the impact of the engineering profession facing the digital revolution and industry 4.0 to see to what extent the results would deviate from the baseline measurement of last year.

We could conclude that the vision and expectations of the engineers and companies have not substantially changed. For many engineers and companies it is still unclear how the technological change will redraw the industrial landscape. According to the survey participants, the biggest challenge will be to acquire new competencies and skills.

Events and Activities

A fourth edition of the energy debate was organized. Participation was also made in job fairs to familiarize



graduates with the labour market and guide them in their search for a job. To foster competence enhancement, training courses and seminars are organized in order to meet the needs of engineers and engineering companies.

Surveys concerning “Women in Engineering” and on “Jobs - starting the career of an engineer” as well as on “Salaries” were conducted.

The Working Group on “Patrimoine et Histoire” published a book on the use of matériaux ferreux dans les constructions. The Working Group on “energy transition” finalized its report. A “Code of Ethics” was also published.

A portal is being development where engineers and companies can meet each other in order to map the professional possibilities of engineers. ■





REPORT OF THE BRITISH FEANI NATIONAL COMMITTEE



British National FEANI Committee

Year of Adhesion : 1965

Declared engineers: 235 000

Number of EUR ING: 16 307 (active: 7 103)

Member associations: The Engineering Council of the United Kingdom was created by Royal Charter in 1981. Its Patron is HRH The Duke of Kent. It supervises the British engineering profession through licensed member institutions

From May 2020 our new address is:

**The Engineering Council
Northern & Shell Building,
10 Lower Thames Street,
London, EC3R 6EN
international@engc.org.uk
www.engc.org.uk**

The Engineering Council 2018-20 Strategic Plan has three main aims:

- provide Public Benefit - society must continue to have confidence that registered engineers and technicians will uphold the Engineering Council's (EngC) standards and exercise their responsibilities in an ethical manner
- maintain a Globally Recognised Standard
- meet Future Needs - this includes ensuring that systems and processes to remain fit for purpose for a future profession where the boundaries between the different disciplines of engineering may become less distinct and new technologies will emerge

Standards Review

The EngC is carrying out a five-yearly review of our Standards along with the rules and guidelines for carrying out registration and the processes that support it. The purpose of the review is to ensure that the Standard continues to be relevant, flexible and future-ready for the benefit of all

stakeholders. To remain relevant, it must accommodate changes in the knowledge and understanding, skills and behaviours required of engineering professionals and in the ways in which these are developed throughout their careers.

The revised standards documents are as follows:

- Registration Code of Practice (RCoP) - the rules for Licensed members
- UK Standard for Professional Engineering Competence and Commitment (UK-SPEC)
- Approval and Accreditation of Qualifications and Apprenticeships (AQAA)
- Accreditation of Higher Education Programmes (AHEP)
- Learning Outcomes for qualifications, apprenticeships and HE programmes



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Publication of the new suite of standards documents is expected to be in late-2020, with a transition period for implementation.

International Engineering Alliance (IEA) Annual Meeting

EngC hosted the IEA from 24-29 June 2018 in London, consisting of 150 delegates representing 45 bodies from 36 jurisdictions around the world. The meeting included a series of workshops and discussion forums, followed by business meetings of the three engineering Education Accords and four Competence Agreements.

Publicly Available Specification (PAS 525:2018) for Assessing the Competence of Professional Engineers

ECUK has worked with BSI to develop an internationally applicable Publicly Available Specification (PAS 525:2018) for assessing the competence and commitment of engineering professionals. This framework defines a standard for knowledge, skills and behaviours that are required to build and maintain competence within a rapidly changing profession. An overview of PAS 525:2018 is available on the FEANI website: <https://www.feani.org/publications/presentations>

EUR-ACE Review

Following the EUR-ACE review of EngC accreditation standards and processes that was conducted between November 2018 and March 2019, the ENAEE Label Committee extended the label authorisation for the full period of 5 years from 1 January 2019. ■



REPORT OF THE BULGARIAN FEANI NATIONAL COMMITTEE



Federation of Scientific Technical Unions in Bulgaria (FNTS)

Year of Adhesion: 2004

Declared engineers: 15 000

Number of EUR ING: 48

Member associations: FNTS brings together a number of 19 Associations and 34 Territorial organizations.

108 G.S.Rakovski Street - BG-1000 Sofia

National House of Science and Technique, - P.O. Box 431

Tel: + 359 2 98772 30 - Fax: + 359 2 98793 60

The Federation of the Scientific Engineering Unions (FNTS) in Bulgaria is a professional, scientific and educational, association - umbrella organization for 19 national associations - Scientific and Technical Unions / STU /, 34 territorial associations, which have more than 15000 professionals - engineers and scientists all over the country.

The Federation publishes its own newspaper "Science and Society". The members of the Federation publish 12 scientific journals. The Federation operates a Vocational training center licensed by the National Agency for Vocational Education and Training. The Federation is owner of SME - "INOVATICS" LTD engaged in R&D activities.

The main tasks and related activities of the Federation are:

- to promote the association as an important institution of the civil society,
- to increase the influence and prestige of Bulgarian engineers, economists, specialists in agriculture, technicians, scientists and inventors;
- to represent our members to government institutions
- to assist and encourage the creativeness, the professional interests and achievements of our members.



Discussion dedicated to Smart Houses was held in the Professional High School of Computer Systems and Technology in Pravets

The Federation and its members in 2018 and 2019 organized several hundreds of scientific and technical conferences, symposia, seminars, round tables and other events. The most prominent were International Conferences on:

- "Computer Systems and Technologies"
- "Intelligent Systems"
- "Automation and Informatics"
- "Power Electronics and Motion Control"
- "Energy Forum"
- "Metal Casting, Machines, Technologies, Materials - Innovations for Industry"



Future Engineers

- "Metrology and Metrology Assurance", as well as the
- "National Conference for Young Scientists and Engineers"

On November 7, 2019, within the framework of the XVI National Conference for Young Scientists and Engineers, a discussion dedicated to Smart Houses was held in the Professional High School of Computer Systems and Technology in Pravets. The discussion was attended by high school students, teachers and school management representatives. The discussion started with a presentation about this new area of control systems and their practical application in our homes. It was touching and encouraging to see the brilliance in the eyes of students who were introduced to these new technologies and the opportunities for professional realization. ■



Awarding the best scientific papers from the "National Conference for Young Scientists and Engineers"



REPORT OF THE CROATIAN FEANI NATIONAL COMMITTEE



Croatian Engineering Association (HIS)

Year of Adhesion: 2010

Declared engineers: 20 000 **Member associations:** HIS is non-governmental and non-for-profit association founded in 1878. HIS is association of 37 members, Engineering societies of different professional orientation and 10 supporting members mostly from HEI.

Berislavičeva 6, HR - 10000 Zagreb

Tel: + 385 1 48 80 985 - Fax: + 385 1 48 72 491

tajnistvo@his-hr.hr

www.his-hr.hr

HIS, Croatian Engineering Association following its strategic process in order to gathering and bring together of engineers/engineering societies and organizations for better positioning of engineering profession and stronger influence to economy growth and quality of life enhancement.

European Young Engineers -EYE

13 January 2018 HIS supported participation of EYE Croatia to join EYE Council meeting in Luxemburg, where EYE Croatia became a 23rd member of EYE.

CROATIA ENGINEERS' DAY

2 March 2018: under the auspices of Government of the Republic of Croatia, HIS together with Croatian Academy of Engineering, marked their day at University of Zagreb, the Faculty of Civil Engineering, covering key topic of: how to track challenges and perspectives of "INDUSTRY 4.0". A fourth era of change characterized by quantum jump driven by trends of digitalization, connectivity, service orientation, advanced materials, innovative processing technologies as well as collaborative advanced manufacturing networks needs the creative new professions and engineers with

obligation to maintain their professional competences and skills by continuous professional development commitment.

22 February 2019: the Engineers' day held for the fifth time brought together engineering and science, universities and companies this time took place at the University of Zagreb, Faculty of Chemical Engineering and Technology. The focus was on question and importance of all Croatian engineering professions to have equivalent regulatory framework due to equivalent competition to the labour market. Topics were also on regulated professions. Special attention were devoted to continuation on activities and cooperation with FEANI in projects for international mobility relaying on the competence. Also engineering education in Croatia, formal and non-formal and CPD is always under the interest of HIS members with a number of ideas to be considered.

Projects

EU Project (CPD4GB) concerned "Continuous Professional Development in Green Building Through Lectures and Presentations". Support was given to the partnerships of civil society organizations and HEI for the implementation of socially useful learning programs.

FEANI Activities

In order to contribute to the work on mobility through FEANI effective instruments as the FEANI EEEED (previously INDEX), the EUR ING and the Engineering Card, HIS continued with evaluation of HEI's engineering programmes. Some of them were evaluated successfully: University of Zagreb, Faculty of Forestry (2018) and Faculty of Food Technology and Biotechnology (2019) Croatian FEANI National Committee were organized with task to cooperate with FEANI for HIS, Reviewing of HIS PMC and PRC procedures and carefully started promoting STEM Strategy.

28 - 29 June 2019: FEANI CEG meeting in Zagreb. The FEANI General Secretary Mr. Dirk Bochar presented the FEANI Progress report and invited FEANI National members for even intensive cooperation since objectives, what FEANI is striving for, are so needful for the engineering profession in Europe. The members of the CEG: AT, BE, CH, CZ, DE, HR, LU, NL, PL, SI, SK, UA, represented at the meeting give short overviews of the current activities of their National organizations. Next day CEG visited the Faculty of Textile Technology, University of Zagreb, Construction and Production of intelligent closing were presented by colleagues meritorious for innovations that provided acknowledgement from respectable institutions in the world.



The HIS General Assembly

23 November 2018: new HIS members admitted were: the Croatian Leather and Footwear Society (HDKO), the Society of Engineers and Technicians "Otok Ivanic", the City of Ivanič - Grad (DIT OIG) and the Geodetic Society of Zagreb (GDZ). Among many activities during the 2018 year it was decided to work on increasing the engagement of societies, the members of HIS, in sharing experience and best practice in mutual projects for CPD.

25 November 2019: Mr. Zdravko Jurčec dipl. engineer in Civil engineering is the new elected President of Croatian Engineering Association, HIS. In the ambitious programme presented at the General Assembly he emphasize his intention to continue with strategy and efforts to contribute in stronger and better coordination of engineers, better involvement of engineers in development of education as well as in development of economy. He asked professor dr.sc. Vjera Krstelj, past President of HIS in two mandates, to stay for charring the HIS National Committee for FEANI since he wants to continue and even intensify the cooperation with FEANI and generally the best practice exchange internationally. Mr. Davor Podgorčić, dipl. Engineer, the past HIS Secretary General will stay in same positions in the HIS National Committee for FEANI. ■



REPORT OF THE CYPRUS NATIONAL COMMITTEE



FEANI Cyprus National Committee

Year of Adhesion : 1970

Declared engineers: 2 300

Number of EUR ING: 90

Member associations: Technical Chamber of Cyprus (ETEK), Cyprus Civil Engineers and Architects Association (CCEAA) Cyprus Professional Engineers Association (CPEA)

8, Kerverou Street - P.O.Box: 21826

1513 Nicosia, Cyprus

Tel: + 357 22 877644 - Fax: + 357 22 730373

cyprus@etek.org.cy

www.etek.org.cy



The Cyprus FEANI National Committee organized on May 20th 2019, the FEANI South Regional Meeting in Nicosia, at Cyprus Scientific and Technical Chamber's Central Offices. The attendees of the meeting were the FEANI Secretary General and representatives from Spain, Italy, Portugal and Cyprus.

The organizations that form the Cyprus FEANI National Committee organized several educational seminars and information events for the engineering profession.

On-going activities and challenges include:

- the preparation of an update of the FEANI Education Database (EEED) for Cyprus, 7 engineering programmes have been identified at the December EMC meeting in Stockholm.
- continuous training and development for the Cypriot engineers and the promotion of engineering profession in Cyprus



- actions to improve the status for the engineering professions in Cyprus
- actions to integrate E-government to all actions for the development of Cyprus in general

- the promotion of the engineering profession and the status of engineers in Cyprus: technical support to the Government about topics related to Health and Safety, Sustainable Urban Planning and Development of Cities, Energy Policy - Renewable Energy Sources, National Policy for Sustainable Transportation, Mobility and Road Safety, Environmental Policy - Environment Protection

We have also participated in several international meetings such as:

- ECEC- European Council of Engineers Chambers General Assemblies
- ECCE - European Council of Civil Engineers General Assemblies
- Architects Council of Europe General Assemblies
- EAMC - Engineering Association of Mediterranean Countries General Assemblies
- Lisbon Civil Engineering Summit 2019
- 16th European Conference on Earthquake Engineering - Thessaloniki 2018 ■





REPORT OF THE CZECH FEANI NATIONAL COMMITTEE



Czech Association of Scientific and Technical Societies (CSVTS)

Year of Adhesion : 1996

Declared engineers: 50 000

Number of EUR ING: 125

Member associations: Czech Association of Scientific and Technical Societies (CSVTS) and Czech Chamber of Certified Engineers and Technicians (ČKAIT) are the two main Member Associations in the Czech Republic.

Novotného lávka 5 - CZ-116 68 Praha 1

Tel: + 420 221 082 295 - Fax: + 420 222 221 780

dah@csvts.cz

www.csvts.cz

The CSVTS is an umbrella associating 67 independent learned, scientific, technical and engineering societies. Its mission is to defend their professional and societal interests in the country and abroad by representing them in communication with local political and professional bodies as well as with international professional federations and associations. One of the most important things is to mediate actual information and global development trends of the science and its applications in order to guarantee sustainable, resilient, and safe development, and welfare for the humankind in the severe situation of the climate change and the need of greenhouse gases exhalation reduction.

2018 saw the:

- expert collaboration with the Confederation of Industry of the Czech Republic implementing a dual education system in secondary vocational schools
- first stage of a project solution of the Ministry of Regional Development: "Infrastructure of forest economy"
- support of secondary level students competition in the field of Science and Technology (evaluators' activities, winners' rewards and choice and support for participation of students and young engineers in foreign competition (e.g. The Beijing Youth Science Creation Competition)
- initial activities of ČSVTS in the European Young Engineers (EYE) and the admission into ordinary membership of the EYE



EYE CSVTS platform



In Melbourne with Swiss colleagues

Activities in 2019 included the:

- signature of agreements of co-operation with China Association for Science and Technology and Institution of Engineers India
- active participation at the World Conference on Science Literacy in Beijing
- establishment of the CSVTS EYE Platform
- organization of the CSVTS- ZSVTS workshop at the occasion of the 100 years anniversary of the foundation of the Czechoslovak Republic
- preparation of the WEC2023 and participation at the WFEO meetings at the Global Engineering Congress in London
- China Association for Science and Technology (CAST) - Czech Association of Scientific and Technical Societies (ČSVTS) Round Table on Academia, Research Institution and Industry collaboration, Technology and Knowledge Transfer on the high scientific and political ministerial level

- promotion of the World Engineering Convention 2023 at the Czech government
- support to Czech primary school pupils in the national mathematical contest PANGEA and to Czech secondary school students securing their participation in "Beijing Youth Science Creation Competition" and "China Adolescents Science and Technology Innovation Contest"
- wide range of professional conferences, workshops, seminars in the scope of mechanical, energetic, food, agriculture, forest, electrical, civil, chemical, mining, transportation, aerospace, materials and bioengineering fields
- publishing activities, including edition of books for children and students and participation in public debates (TV and radio)
- work on the EU Project: how ESIF has improved forestry infrastructure (forest road density)
- promotion of the World Engineers Convention WEC 2023 at the WEC 2019 in Melbourne, Australia, through a specific booth at the exhibition of the convention and official takeover of the convention trophy at the closing ceremony of the WEC2019. ■



Promotion of the WEC 2023 in Melbourne



REPORT OF THE DANISH FEANI NATIONAL COMMITTEE



English name: The Danish Society of Engineers, IDA

Year of Adhesion: 1960

Declared engineers: 83 000

Number of EUR ING: 354

Member associations: The Ministry of Education has an Advisory Committee covering all polytechnic and non-university education where IDA is represented and offers advice on short cycle engineering degrees.

Kalvebod Brygge 31-33, - DK-1780 København V

Tel: + 45 33 18 48 48 - Fax: + 45 33 18 48 88

ida@ida.dk

www.ida.dk

Technology Pact

In May 2018, the Danish government launched a Technology Pact and invited the President of the Danish Society of Engineers (IDA) to join the board. The Technology Pact aims at attracting more young people to study and work within STEM. IDA has been very active in addressing the need of this initiative, since Denmark expects a lack of some 10.000 STEM candidates in 2025.

The major activities of IDA in 2019 centered around the following professional areas:

The Voice of Technology - Realizing the Potential in New Technology and Integrate the Ethics

IDA has continued the dialogue with the Danish Government and the Danish industry about responsible algorithms. A conference at the Danish Parliament with the Danish Research Committee of politicians and other stakeholders focussed on technical research and the use of Artificial Intelligence.

Cooperation on Artificial Intelligence and Ethics

IDA has been deeply involved in the Danish "Siri Commission" dealing with Artificial Intelligence and Ethics. The President



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of IDA has been chairing the Commission which delivered its related report as well as a report on Artificial Intelligence to the Danish Disruption Council established by the Danish Government.

As a member of the Governments Expert Group for Data Ethics, IDA has been furthermore involved in counselling the Danish authorities about the use of data and especially personal data growing rapidly both among Governmental Institutions and in private companies and organizations.



Tech pagt Sif Meincke

Future Technology Policy

Through the initiative "Industry All", IDA has been contributing to the Commissions "High Level Round Table Industry 2030". This refers to the EU's new Industrial Policy as a consequence of the increasing influence of new technologies and digitalization.

Diversity in Tech and Science - Celebrating Women

IDA has also organized a conference entitled "*Diversity in Tech and Science - Celebrating Women*" with focus on women's influence and participation in technology. As a part of the conference, IDA awarded

this year's equality award (Agnes & Betzy prisen) to Mozghan Gerayeli for her efforts to help international engineers in Denmark return to jobs within engineering.

Clean Technology and Sustainable Development

IDA has developed a "Clean Tech Proposal" with 29 recommendations which for a large part has been adopted by the Government's Committee for Sustainable Growth and Development. IDA has via "Industry All" developed different policies aiming at changing the European Industries into models for Circular Economy and Social Responsibility.

Future Welfare: An Enhanced Action for Research and Education

IDA has as part of the development of the Government's new Strategy for Research been actively involved in Governmental



Thomas Damkjær Petersen

Working Groups targeting at more education and research in science and technology.

Research Alliance

IDA has initiated a Research Alliance in cooperation with the Danish Academy of Technical Sciences, The Confederation of Danish Industries and Danish Metal Workers' Union. The goal of the alliance is to increase the Danish public research budgets from 1% of GDP to 1.5% of GDP in 2030.

Politics in Denmark

During the Danish elections in June, IDA launched a campaign to get voters and Danish politicians to base political debates and discussion on facts. The campaign was viewed some 2.000.000 and shared 11.000 times on social media platforms (<https://ladfaktatale.ida.dk/>).

Fund for Lifelong learning for State employees

As part of the collective bargaining agreement for State employees, the State Sector Competence Fund was established. DKK 84,2 million has been allocated to finance competence development for the members of the Danish Society of Engineers and other trade unions for academic state employees. ■



REPORT OF THE ESTONIAN FEANI NATIONAL COMMITTEE



EESTI INSENERIDE LIIT

Estonian Association of Engineers

Declared engineers: 978

Number of EUR INGs: 45

Founded in 1921 as the Estonian Society of Engineers

Re-established in 1988 under the name of the Estonian Association of Engineers (EAE).

Membership of the Estonian Association of Engineers comprises 11 professional organisations, 2 universities, 1 higher school, 1 professional education institution and 4 companies of stature.

Estonian Association of Engineers is a non-profit organisation, acting in public interests. The Association is an umbrella organisation, bringing together the professional organisations of engineers, trainers of engineers and innovative employers, and all those interested in developing the engineering knowledge and technology.

MISSION - promotion of Estonian engineering sciences and development, innovation, and respective educational policy.

Vision - knowledge- and innovation-based society.

Ehitajate tee 5, 19086 Tallinn ESTONIA

Tel: +372 5236500

inseneronlooja@hotmail.ee

www.insener.ee

Usually one general meeting and six-seven meetings of the Board are held in year. The priority in activities is the valuation of engineering education and engineer's profession.

Key areas for activities were related to the Research and Technology Pact (PACT), involving the concerned parties and local self-government. The Association reached out to involve all parties into common activities (basic schools, gymnasiums, professional education institutions, universities, applied higher schools, entrepreneurs, amalgamations of companies, unions and public sector).

The activities organised by Association were:

- a Roundtable "From Research to Business"

- dissemination of information through Internet environment www.insener.ee
- finalising the composing of engineer's professional standards
- adjustment of results of reforms of the Foundation Estonian Qualification Authority to working principles of the Association
- a thematic Roundtable on "Digitalisation of Industry", organized together with Enterprise Estonia considering the digitalisation of industry as one of the important priorities

A priority was also on the cooperation between Engineers and employers and popularization of engineering. With the support of the Ministry of Social Affairs, our organization started the project RESTART "Back to Professional Work". Its target group are people with technical education who do not work in their speciality. The main goal of the project is to mitigate the shortage of engineers and technicians in the field of engineering by upgrading / refreshing the theoretical knowledge acquired at university on the basis of modern curricula and gaining practical experience.

We participated in a real-life teacher training camp, where the main theme was on the creativity of the Engineer.

As a result of the technology training, the Estonian Association of Engineers had signed a cooperation agreement with Old Town Educational College in 2018. This cooperation continued in 2019. The aim popularize engineering and technology education and introduce students engineering-related disciplines.



Roundtable Digitalisation of Industry

In 2018, the members of our Association started an project to establish Technology Museum. There was formed a foundation called the Estonian Science and Technology Museum. The museum's mission can be divided into two parts: the active promotion of technical sciences and the collection of the history of technology.

Every Year we elect Engineer of the Year *and* Engineering Student of the Year. ■



REPORT OF THE FINNISH FEANI NATIONAL COMMITTEE



The Finnish National Committee for FEANI (SFNC)

Year of Adhesion: 1960

Declared engineers: 78 600

Number of EUR ING: 697

Member associations: The Finnish National Committee for FEANI (SFNC) has representation of four Finnish engineering associations: Union of Professional Engineers in Finland IL, Academic Engineers and Architects in Finland TEK, DIFF - Ingenjörerna i Finland and Tekniska Föreningen i Finland TFIF.

Kansko (SFNC) c/o TEK, Ratavartijankatu 2 - FIN-00520 Helsinki

sari.taukojarvi@tek.fi

www.ilry.fi; www.tek.fi; www.tfif.fi; www.diff.fi

The Finnish National Committee for FEANI (FNC) has four engineering associations as members (DIFF, TIFF, IL and TEK).

The year 2019 was a strong year for the Finnish economy. Exciting opportunities were available for the engineering professionals, businesses and entrepreneurs. Some companies had already difficulties in finding suitable talent. Unemployment was low both for the new graduates and more experienced professionals. Particularly in some fields of engineering there was an employee's market and employers competed to recruit the best talent.

The Finnish engineering organizations took part in the collective bargaining negotiations for senior salaried workers representing those who work in expert, supervisory, management and executive roles. Negotiations in 2019 were mainly held concerning the private sector. The public sector negotiations will be carried out in 2020.

The year 2019 was a super year of influencing due to the Finnish parliamentary elections and all the collective bargaining.

Important themes in 2019 were:

- relevant membership services
- digital activities and learning
- environment and sustainability
- relevance to students and young engineers
- supporting the international talent in recruitment

SFNC's members organisations decided to leave FEANI for the time being. It has been a pleasure and privilege to be a part of the FEANI community for 60 years. We want to thank everyone we have met and collaborated with during these years. ■

REPORT OF THE FRENCH FEANI NATIONAL COMMITTEE



Ingénieurs et Scientifiques de France (IESF)

Year of Adhesion : 1951

Declared engineers: 160 000

Number of EUR ING: 2 770

Member associations: More than 140 associations are CNISF' members. These can be found in the IESF website.

7 rue Lamennais - F-75008 Paris

Tel: + 33 1 44 13 66 88 - Fax: + 33 1 42 89 82 50

ebison@iesf.fr

<http://www.iesf.fr>

Created in 1848, IESF is the federation of 180 French engineering and science Alumni associations.

Registered as a non-benefit association, it represents engineers with government authorities, industries, businesses and general public and promotes engineering and scientific careers and achievements. Headquartered in Paris, IESF has 25 regional offices and is a member of FEANI and WFEO. IESF board consists of 28 members. Its permanent team includes 5 people. The president of the board is Mr Marc Ventre.

IESF Main activities

- promotion of engineering and scientist careers in schools, forum and industrial fairs meeting students, parents and teachers
- yearly national survey on professional and socio-economic situation of engineers and scientists in France.
- delivery of international engineering certification (EUR-ING)
- annual organization of the National Engineering Day



- institutional Partner of the French authority in charge of delivering Engineer titles
- representation of French Engineers & Scientists as national member of FEANI and WFEO

2018-2019 Highlights

- promotion of engineering and scientific careers:
 - during the past school year, thanks to about 400 volunteers, more than 1000 events have been organized and 41000 students have been met including 50% of young girls



IESF

- in 2019 we issued our 30th survey covering about 50000 responses from engineers and scientists
- in 2018 we have registered one million engineers in our repertory
- launch in 2018 of a strategic committee with 2 major objectives :
 - make scientific and engineering careers more attractive and doctorate graduates closer to the business and corporate world
- on-going improvement of EURING diplomas delivery
- preparation of the new Labellis certificate service planned in January 2020
 - LABELLIS certifies the registration to the French Engineer and Scientist repertory of graduates from engineering schools validated by the French authority in charge of delivering engineer titles (CTI). Available in French and English, it is registered in both languages in the Ethereum blockchain in order to provide all the necessary tamper-proof security. The LABELLIS link allows any graduate to provide a proof of his/her engineering diploma thru a on line or paper QR code.
- publications
 - launch of the new IESF magazine and publication of papers on various topics: climate change, strategy for no carbon mobility
- IESF is also a partner of various national events including conferences, debates etc.
- activities with FEANI:
 - Active participation of IESF for the E4E project submission as France is a pilot country
 - On-going participation to the FEANI initiative for a "European Engineer Advisory Group" and to the FEANI STEM Working Group
- activities with WFEO:
 - appointment of François Lureau, former President of IESF to the WFEO Nominating Committee
 - IESF Energy Committee currently chairing the WFEO Energy committee for a 3 year assignment
 - participation of IESF President Marc Ventre to the WFEO annual meeting in London. ■



REPORT OF THE GERMAN FEANI NATIONAL COMMITTEE



Deutscher Verband Technisch-Wissenschaftlicher Vereine (DVT)

Year of Adhesion: 1951

Declared engineers: 210 000

Number of EUR ING: 2 851

Member associations: The German Federation of Technical-Scientific Associations (DVT) and its member organisations represent engineering, technology and natural sciences in Germany towards politics, companies and civil society. They are active in increasing the visibility of engineers and natural scientists and their work. In addition, the 30 members of DVT promote literacy in engineering and natural sciences and support political decision-makers and others with their expert knowledge.

Deutscher Verband Technisch-Wissenschaftlicher Vereine e. V.

c/o VDI Verein Deutscher Ingenieure e. V.

VDI-Platz 1 - D-40468 Düsseldorf

Tel: + 49 211 6214 305 - Fax: + 49 211 6214 97305

info@dvt-net.de

www.dvt-net.de

DVT has continued the process of reorganizing its activities and focusing on engineering topics, striving to make DVT the leading umbrella organization in Germany in the field of engineering. One cornerstone in this strategy is making DVT a communication and information exchange platform for its members. The creation of DVT member fora, very much like the National Members' Forum of FEANI, is an important step. The fora offer DVT's members the opportunity to discuss topics of common interest and do best-practice exchanges. In February 2018, the first forum took place at the VDE head office in Frankfurt/Main. The focus was on inspiring young people for engineering or the natural sciences.

DVT events and activities in 2018 and 2019 included:

- a members' forum on effects of digitalization on member associations
- a members' forum on promoting science literacy and interest in engineering and natural sciences
- intensified cooperation with international partners beyond FEANI (Brazil, China, USA)
- implementation of EU's General Data Protection Regulation
- formulation of cooperation agreement with TH Georg Agricola concerning EUR ING
- best practice exchange of DVT member associations on promoting interest in engineering and natural science among young people
- the VDE/TEC Summit 2019 in Berlin (topics: mobility of the future, artificial intelligence, smart homes)
- a VDI paper on engineering education and digital transformation
- a presentation at "World Conference on Science Literacy", Beijing, China
- a presentation on accreditation and engineering education at "International Forum on Engineering Capacity", Beijing, China
- the "German Engineers' Day" of VDI (main theme: "engineering tomorrow - how to make smart use of artificial intelligence") ■

REPORT OF THE GREEK FEANI NATIONAL COMMITTEE

TEE

ΤΕΧΝΙΚΟ ΕΠΙΜΕΛΗΤΗΡΙΟ ΕΛΛΑΔΑΣ



Greek National Committee FEANI

Year of Adhesion : 1952

Declared engineers: 100 000

Number of EUR ING: 529

Member associations: The Greek National Committee consists of representatives of the Technical Chamber of Greece and the six Engineering Associations.

Technical Chamber of Greece

Directorate of Public Relations, International and European Affairs

4, Nikis Str. - 105 63 Athens, Greece

Tel.: + 30 210 3291348 Fax: + 30 210 3291614

E-mail: greek@central.tee.gr

web.tee.gr

The Technical Chamber of Greece have developed, during the period 2018-2019, many and various activities so that the Engineers achieve common goals and face the tomorrow's challenges. The TCG also believes that the role of the profession of Engineer in society should be emphasized through its activities. At a glance:

- On 1st February 2018, **Mr. Dirk Bochar, FEANI Secretary General, had a meeting with Members of the Greek FEANI National Monitoring Committee (NMC)** at the building of the TCG (Syntagma, Athens). It was agreed to strengthen the cooperation between the European Federation of National Engineering Associations and the Technical Chamber of Greece through joint targeted actions. In this context, the TCG agreed to host the 3rd

annual Meeting of the FEANI European Monitoring Committee (EMC) in early December 2018.

- **18th Concrete Conference** (29-31 March 2018, Eugenides Foundation, Athens): The 18th Concrete Conference was organized by the Greek Concrete Department of the TCG and the National Technical University of Athens and in collaboration with the Technical Chamber of Cyprus.
- Conference on **"From the past to the future, from Ancient Greek Technology in Smart Cities. The role of the science of Civil Engineering in the evolution of humanity"** (27 September 2018, Eugenides Foundation, Athens): The Conference was organized in collaboration with the European Council of Civil Engineers-ECCE as part of the events organized in Europe during 2018 to celebrate the European Year of Civil Engineers. The honored speaker was the Emeritus Professor of the National Technical University of Athens, Mr. Theodosios P. Tassios. Among the distinguished invited speakers was Mr. Włodzimierz Szymczak, President of the European Council of Civil Engineers-ECCE. During the Conference there was a parallel exhibition of Exhibits of Ancient Greek Technology as well as film screenings. ■



- The National Technical University of Athens interdisciplinary team “Protection of monuments” and the Technical Chamber of Greece in collaboration with the National Geographic Society, the World Monuments Fund, the Ministry of Culture and Sports and the Ministry of Digital Policy, Telecommunications and Media of the Hellenic Republic organized the 1st International Conference on “**Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage**” [TMM_CH] on 10-13 October 2018, in Athens. TMM_CH International Conference was organized under the auspices of H.E. the President of the Hellenic Republic, with the support of the Hellenic Parliament, in cooperation with the International Council of Monuments and Sites-ICOMOS, the Organization of World Heritage Cities-OWHC, the European Society for Engineering Education-SEFI, the European Construction Technology Platform, the International Federation of Surveyors-FIG, the Culture Heritage Documentation CIPA and other major International and European organizations, associations and networks in the field of cultural heritage preservation.

- **High-Level International Interdisciplinary Conference - tufe 2018. Economy, Society and Climate change. The impact of mega trends in the Built Environment, Construction Industry and Real Estate** (7-10 November 2018, Eugenides Foundation, Athens): The 1st International Interdisciplinary Conference was organized by the Technical Chamber of Greece in cooperation with the International Federation of Surveyors-FIG, the International Union of Architects-UIA, the European Council of Civil Engineers-ECCE and the International Organization UNECE WPLA-Working Party on Land Administration with the support of the European Commission, Representation in Greece. FIG, UIA and ECCE, three major organizations of the technical world, signed a joint statement on the subject of the TCG conference emphasizing the common vision of professional engineers to follow the United Nations’ goals for 2030. There were more than sixty distinguished speakers from around the world, representing 5 continents of the planet. Engineers, representatives of international organizations, experts and academics had

the opportunity to exchange professional experiences and scientific knowledge in order to contribute effective-



ly in the fields of economy, society and climate change for the protection of the environment and the humanity. Modern issues such as renewable energy sources, digitalization of the construction sector, standardization of BIM (Building Information Modeling), smart cities, real estate management, dealing with natural disasters, have been discussed.

- **Participation in the 5th International Tourism Exhibition entitled “Athens International Tourism Expo”** (7-9



December 2018): The Technical Chamber of Greece participated in the 5th Athens International Tourism Expo with proposals for “smart” rooms (DigiHotel).

- The Technical Chamber of Greece, as a National Member in the European Federation of National Engineering Associations-FEANI, hosted the 158th EMC Meeting on 11 and 12 December 2018 in Athens.



- **“The Role of the Engineer Today: New Technologies, Good Practices in Big Projects”**: The event took place on 14 December 2018 at the Lecture Hall of the TCG (Syntagma, Athens).
- The National Technical University of Athens and the Technical Chamber of Greece co-organized the **“Researcher’s Night”** on 27 September 2019 at the Historical Patission Complex.
- Participation in the **Athens Real Estate Expo**, Athens, June 7-9, 2019
- Co-Organization with the Greek Body of Earthquake Engineering, of the **4th Panhellenic Conference on Earthquake Engineering & Technical Seismology**, Athens, September 5-7, 2019
- **Participation in the 6th Athens International Tourism Expo 2019** (6-9 December 2019) at the Metropolitan Expo. ■



REPORT OF THE ICELANDIC FEANI NATIONAL COMMITTEE



Association of Chartered Engineers of Iceland

Year of Adhesion : 1965

Estimated Number of Engineers in Iceland: 6 000

Declared engineers: 4 300

Number of EUR ING's: 17

Member associations: Association of Chartered Engineers in Iceland (VFÍ)

Engjateigur 9 - IS-105 Reykjavik

Tel: +354 5359300 - Fax: +354 5359311

vfi@verктаekni.is

www.vfi.is

Main key-activities and events over 2018-2019

- The Day of Engineering held for the fourth time in April 2018. The event gained significant publicity in media and is very important to encourage young people to study engineering. This event plays a vital role in recruiting new members. Attendance equals 13% of VFÍ members.
- The Family Day of Engineering was held for the second time in August 2018 and was a great success. The event was in Reykjavík's largest family park, and there was free admission for the members of VFÍ and their families. The main attraction was a fun exhibition from the University of Iceland Science Center, educating children and adults about the wonders of science and technology.
- VFÍ cooperated with the Icelandic government on national security issues, particularly hybrid threats.

- Supporting engineering students and sponsor the Science Center for the younger generation.
- VFÍ held courses in device programming for the children of VFÍ members.
- In October 2019, VFÍ celebrated the 100th anniversary of VFÍ's language committees. They make terminology in Icelandic for words in technology and science.
- FEANI's annual meeting was held in Reykjavík in October 2019.

Next, future key-activities and FEANI contributions

"Verkfræðingur" and "tæknifræðingur" are authorized professional titles in Iceland. VFÍ is the body responsible for ascertaining whether the applicant's education is entirely in accordance with valid rules. Therefore educational matters are of utmost importance.

Participation in FEANI has been useful in safeguarding the job title and quality of education in engineering. The FEANI EEED is fundamental in this matter. ■



Dagurverkfræðinnar_salur_net



REPORT OF THE IRISH FEANI NATIONAL COMMITTEE



Engineers Ireland

Year of Adhesion : 1966

Declared engineers: 18 524

Number of EUR ING: 1 352

Member associations: The Institution of Engineers of Ireland was founded as The Institution of Civil Engineers of Ireland in 1835. It received its Royal Charter in 1877. The Institution of Engineers of Ireland was established by Act of Government in 1969 and operates under the name of Engineers Ireland.

22 Clyde Road - Ballsbridge - IE-DUBLIN D04 R3N2

Tel: +353 1 665 1300

membership@engineersireland.ie

www.engineersireland.ie

President for 2019-2020 Ms Marguerite Sayers CEng FIEI

Director General : Ms Caroline Spillane

Secretary FEANI: Mr Damien Owens, CEng FIEI

Engineers Week 2020

Engineers Week is an annual week long activity that encourages industry and academia to open their doors to secondary students and show them what it means to be an engineer (<http://www.engineersweek.ie/>). This includes are several hundred events in schools, workplaces and public spaces.

Engineering 2020 Report

The report outlines developments in engineering employment, perspectives and education, based on engagement with 2,000 engineers, 1,000 representative members of the public and 100 engineering employers

<https://www.engineersireland.ie/Professionals/News-Insights/Campaigns-and-policies/Reports/Engineering-barometer>

Brexit

For many years Engineers Ireland has had mutual recognition agreements with overseas professional engineering institutions (PEI) especially in the UK and have put in place an agreement called the Access Pathways Agreement to continue recognition of engineering professionals post-Brexit. This agreement, put simply, ensures that engineers

who apply, are assessed, and achieve a registered professional title from Engineers Ireland, will continue to have that registered title recognized if they seek work in the UK post-Brexit. Correspondingly, engineers in the UK, that receive a professional title from one of their 35 professional engineering organizations, will have that title recognized if they wish to come to work in the Republic of Ireland.

Prefer Project

Engineers Ireland along with FEANI is participating in the EU project "Professional Roles and Employability of Future EngineerS (PREFER)". This project completed with a meeting in Leuven in February 2020 ([www. http://www.prefer-project.eu/](http://www.prefer-project.eu/)).

Engineering Education Workshop

A review of the Accreditation Criteria and Procedure commenced with workshops at the 'Engineering Education: Future skills, standards and mobility' conference held at Clyde Road on 30 October. Online consultations were also organised with industry and the engineering education community. A special issue of the Engineers Journal on engineering education was published in December. ■

REPORT OF THE ITALIAN FEANI NATIONAL COMMITTEE



Consiglio Nazionale Ingegneri (CNI)
Year of Adhesion : 1951
Number of EUR ING's: 10
Member associations: The Consiglio Nazionale Ingegneri was founded in 1925 in accordance with law n.2537 of October 23, 1925. Today CNI is the legal representative of Italian engineers with institutional duties for the defence of the important interests of the entire profession.
Via XX Settembre 5 - 00187 ROMA
Tel. : +39 06 853 54739 - Fax : +39 06 697 67050
segreteria@cni-online.it - esteri@cni-online.it - esteri@fondazionecni.it
www.cni.it



The National Council of Italian Engineers (CNI) is the institutional national body representing the professional category of the Italian engineers.

CNI is a non-economic public institution, established in 1944 and placed under the supervision of the Ministry of Justice.

CNI plays a significant role in:

- promoting, developing and safeguarding the figure of the Engineer in the society;
- providing the Continuing Professional Development and ensuring the quality of the professional performances.

Activities and objectives of CNI give high importance to the following topics: safety and security of people and goods, environment protection, safeguarding of the natural resources, sustainable development goals, scientific and technological progress and enhancement of the intellectual work.

CNI (in cooperation with UNI, our Italian National Standards Body) has created the Italian Agency for the certification of competencies (CERT'ing), with the specific aim to make identifiable the competencies of the Italian engineers, enrolled in our order system, by validating the competencies acquired during their work life. CERT'ing involves all roles of engineers and the certification system CERT'ing is being validated to the ISO 17024 and certified by ACCREDIA (Italian Accreditation Body).

CNI, in connection with other European Engineers Organizations and Institutions, has been working to the finalization of ENGINET (ALLIANCE) project for mutual recognition of certification of competences: to create a common platform to mutual recognize the certification schemes in use in the different organizations participating in the project. The project also aims to create a new path for the mobility of the engineers within European countries

As already presented during several FEANI Assemblies and meetings, CNI has also worked to WorkING project, which is a web platform designed to generate services and utilities

suitable to meet the growing need for references and support tools for engineers.

Another important presence inside FEANI concerns the representation in the EMC; regarding our future activities related to the FEANI scope of interest, we are interested in the remote maintenance of the FEANI INDEX (EEED), the reconsideration of the position of CNI concerning the Eur-Ing title, as well as the promotion of the mobility and the mutual recognition of the profession of engineer.

As part of our commitment inside FEANI, CNI is one of the six pilot countries of the E4E project, aiming at promoting new trends in the engineering education by developing future career paths and a set of services for the work of engineers.

Major activities in 2018-2019

Major Events and activities of CNI included:

- consolidation of the European project within the mutual recognition of certification schemes
- consolidation of the "WORKING" project
- confirmation of the PMC activity concerning EUR ING title
- launch of ENGINET project for mutual recognition of certification of competences
- participation and support in the Engineers Europe Advisory Group and the E4E project ■

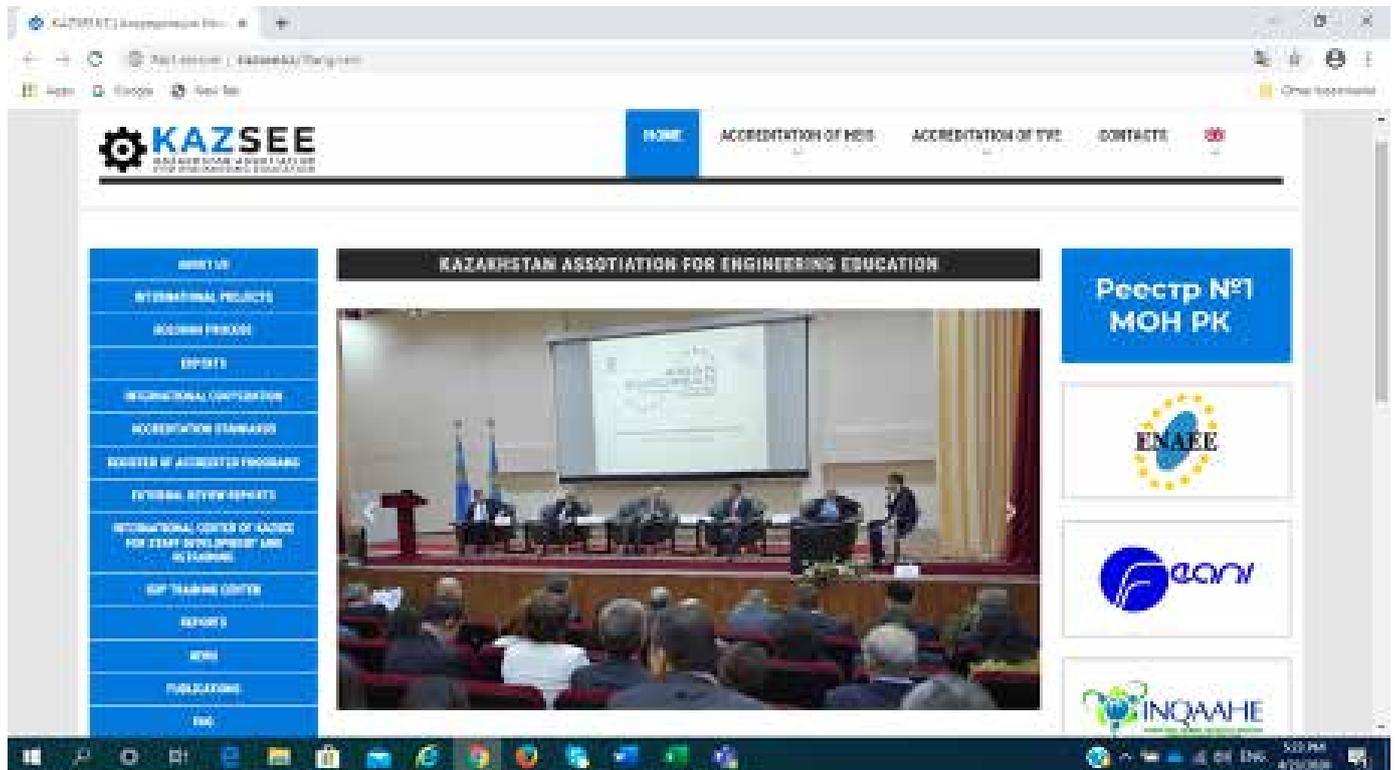


REPORT OF THE KAZAKHSTAN FEANI NATIONAL COMMITTEE



Kazakhstan Association of Engineering Education (KAZSEE)
Year of Adhesion : 2015

Microdistrict 1/36 - 050062 Almaty - Kazakhstan
Tel: +77272211462
Alimov.kazsee@gmail.com
www.kazsee.kz



REPORT OF THE MALTESE FEANI NATIONAL COMMITTEE



Maltese Chamber of Engineers and Kamra tal- Periti (Chamber of Architects) have joined to form "Inginiera Malta"

Year of Adhesion: 1978 (Chamber of Engineers), 1920 (Kamra tal- Periti (Chamber of Architects)). These Chambers joined forces in 2018/2019 to form Inginiera Malta

Declared engineers: 529 members of the Chamber of Engineers

Number of EUR ING: 158

Address:

Professional Centre - Sliema Road - GZIRA GZR 1633, Malta

Tel: +356 2133 4858 - Fax: +356 2134 7118

info@coe.org.mt

www.coe.org.mt

Engineers Malta

The formation of EEAG (Engineers Europe Advisory Group) acted as the catalyst for the Chamber of Engineers (CoE) to set up a joint committee with the Chamber of Architects and Civil Engineers (Kamra tal-Periti - KTP) to represent the interest of all engineers in Malta. The name of this committee, and hence the new FEANI National Member for Malta, is called "Engineers Malta".

Chamber of Engineers

STEM Education and Engineering: The European Centre for the Development of Vocational Training (CEDEFOP) expects that by 2025 around 26 per cent of all employment in Europe will be in professions related to science, engineering, healthcare, business and teaching. To address this challenge, the Education subcommittee within the Chamber of Engineers carried out study on the current situation in Malta particularly as regards to the education of youngsters in related STEM fields.

Continuous Professional Development: The Engineering Profession Act (Chapter 321) currently does not include a Continuous Professional Development (CPD) programme for warranted professionals. Locally, the Malta Federation of Professional Associations identified the need for professions to employ CPD programmes in order to encourage

professionals to undertake continuous training within their field. The Chamber of Engineers felt that the best approach to tackle this was to create a voluntary CPD programme. The Chamber of Engineers CPD Committee has drafted a CPD guideline document.

Further activities of the Chamber of Engineers in 2019 included:

- discussions with Government and the Planning Authority over the role of mechanical and electrical engineers in the building industry
- analyses of the downward trend of students entering university to study engineering
- setting up of a new strategy, to be implemented by the Council formed in February 2020. The strategy included improvement on the public relationships, communication methods (including new website) and local educational issues:
 - continuation of the discussion initiated in 2019 with Government and the Engineering Profession Board over a proposed revision of the law regulating the profession of engineering in Malta

- continuation of the discussion initiated with Government and the Engineering Profession Board over the admission of graduates from the Malta College of Art, Science and Technology to the Profession
- planning way forward on how to tackle the issue of the lack of uptake of engineering courses through our Education Committee
- participation in local STEM promotional events

Kamra tal-Periti - KTP

In 2018, the Kamra tal-Periti EGM in November 2018 approved a position paper for the new Maltese building and construction regulations.

In the framework of the Annual General Meeting in January 2019, the Kamra, together with the European Parliament Office in Malta organised a discussion regarding the upcoming MEP elections as well as on the role of European institutions in the built and natural environment, and its effects on the profession.

The Kamra has been also working with the Malta Building Industry Consultative Council (BICC) in discussing the setup of a new course in health and safety targeted specifically at professionals. It was also involved with the consultation reply on the Rent Reform White Paper, followed by specialised Housing Programme and Design Competition.

Further activities included:

- discussions with Government over the state of the construction industry and the profession which led to a Letter of Commitment from Government outlining a series of actions and reforms to be undertaken over the coming months
- 100th anniversary celebration of the Civil Engineering profession in Malta in 2019, including the second edition of the Emanuele Luigi Galizia Awards for excellence in the practice of the profession

- Periti Act: ongoing discussions with government on the revision of the law that regulates the profession of the architects and civil engineers in Malta
- Building Regulatory Framework proposal to reform the construction sector: active promotion of this reform and preparation of a detailed document for the establishment of local building regulations which prompted government to set up the Building and Construction Agency
- review of the Strategic Plan for the Environment and Development: KTP has given a strong opinion regarding the distinction of development zones in Malta and is of the opinion that this is reviewed concurrently with the Rural Policy forming part of a strategy to safeguard the rural environment
- involvement with drafting of a National Strategy to address the social and economic impacts of COVID-19 in collaboration with Chamber of Advocates Malta, Kunsill Nutarili ta' Malta (Malta Notarial Council), Dental Association of Malta, and The Malta Institute of Accountants. In addition to this, the KTP has made separate proposals to safeguard the safety of all involved on construction sites
- attendance to various events and media appearances such as at General Meetings and Assemblies of ECCE, ACE and UMAR; organization of "Sustainable Communities" design competition in collaboration with Housing Authority and the Parliamentary Secretariat for Social Accommodation; MASP 2019 Conference - Reinventing Places through Innovation focusing on "Architecture & Spatial Planning"; Ta' Qali Action Plan; signing of the Davos Declaration 2018 calling for a high-quality Baukultur, etc.
- cooperation with the Malta Chamber of Commerce, Enterprise and Industry on matters of national economic policy of common interest to the business community and the architecture and civil engineering profession ■



REPORT OF THE NETHERLANDS FEANI COMMITTEE



Royal Netherlands Society of Engineers KIVI

Year of Adhesion : 1959

Declared engineers: 18 000

Number of EUR ING: 668

Member associations: The Royal Netherlands Society of Engineers KIVI was founded in 1847. It is the national Engineering association of the Netherlands, with professionals of all disciplines of engineering as its members. The association provides a large number of activities for its members, aimed at a continued professional development.

PO Box 30424 - NL-2500 GK Den Haag

Tel: +31 70 391 99 00 - Fax: +31 70 391 98 40

www.kivi.nl

The Royal Netherlands Society of Engineers (KIVI) is the largest engineering society of the Netherlands, with over 18.000 members and sections for all engineering disciplines. Our primary objective is to support engineers in their professional development and help advance their careers. In order to do so we provide in-depth and cross-sector knowledge sharing and networking. For 2018 and 2019 the following stood out:

The international dimension: the Chartership Structure

At this time when technological developments take a quick flight, it is important that engineers develop continuously. KIVI facilitates this as much as possible in an ecosystem of industry, higher education and knowledge institutions. Knowledge and networks are, of course, also outside the Dutch borders.

In 2018 and 2019, KIVI continued the work on strengthening KIVI's international position. It invested a lot in building up and maintaining the international network with a focus on the mutual recognition of the qualifications Chartered and Incorporate Engineer. With the Chartership structure KIVI has

provided its members with a way to achieve a widely recognized international quality standard.

In this context, KIVI signed in 2018 a mutual recognition agreement with the Institution of Engineers Singapore (IES). With the agreement, Chartered Engineers from the Netherlands can gain professional recognition of their qualifications and expertise when they practice in the Singapore and vice versa. It will help engineers hone their practice overseas and acquire valuable experience. The increased mobility of engineers will also provide the industry with greater access to engineering expertise.



Joanne Meyboom-Fernhout

2018 FEANI Central European Group Meeting

On 31 August 2018 KIVI hosted the Central European Group for the annual meeting. It was a nice and fruitful meeting with lively discussions, for example about the initiatives the organisations are taking in the field of sustainability and in attracting young engineers. An interesting visit to the Science Center Delft was a part of the additional program.

Annual theme: Circular Economy

KIVI launched the "Circular Education Deal", to stimulate to get the circular economy "bottom up" integrated in education. The annual conference, held on 19 November 2018 at Saxion Hogeschool in Enschede, was a success. It turned out that the annual theme "Circular Economy" is of particular interest to the younger engineers and entrepreneurs. Various companies showed that the circular economy is not just talking, but that it is a contemporary commercially attractive way of working.

KIVI-Chair "Energy in Transition"

The KIVI chairs have been established to make a connection between scientific research and professionals in the business world. KIVI already had three chairs: Big Data Science, Architecture in Health and Dynamics Based Maintenance. The implementation and acceptance of new technology in the existing housing stock is a major global challenge. Therefore KIVI awarded the designation "KIVI Chair" in 2018 to the Energy in Transition research group at The Hague University of Applied Sciences. Dr.ir.ing. Sander Mertens has been appointed as lecturer. The professorship focuses on linking knowledge about various energy systems, sustainability, environmental impact, economy and autonomy to be able to make the next step in the transition to renewable energy sources in the residential and working environment.

Prins Friso Engineering Prize

During the yearly organised Engineers' Day, KIVI awards the annual Prince Friso Engineering Prize for the engineer that distinguishes himself/herself in terms of expertise, innovative capability, social impact and entrepreneurship. In 2018 it was awarded to Nima Tolou, for developing battery-free sensors and other microwatt devices that can derive

their energy from their environment. The range of applications is huge: from the Internet of Things to the health-care sector, where batteries can be used in pacemakers that can be charged by the movement of the heart itself, for example. In 2019 the Prince Friso Engineer Prize was awarded to Maja Rudinac, as the driving force behind service robot Lea (Lean Empowering Assistant), that helps vulnerable people retain and regain their freedom of movement and independence. Both Nima and Maja received the award in the presence Princess Beatrix and Princess Mabel.

The Online Professional Development Tool

The Online Professional Development (OPD) tool provides a system that supports engineers in their daily working life while providing a structure for professional development. This results in a collection of experiences and professional competence over time which can be exported for multiple uses. The OPD became online available for all KIVI members. This tool is highly appreciated and it also turns out to be interesting for companies and universities. It has already led to several so-called collective memberships of KIVI.

Changes in the KIVI organisation

At the KIVI General Assembly of June 2019, the first female president in KIVI history Ms. ir. Joanne Meyboom-Fernhout was elected president. Joanne studied mining engineering at Technical University of Delft. She works as managing director Siemens Smart Infrastructure and is a member of the board of Siemens Netherlands. Together with the executive board of KIVI she works on a new strategy for the future of KIVI and a reorganisation of the KIVI office. ■



REPORT OF THE NORTH MACEDONIAN REPUBLIC FEANI NATIONAL COMMITTEE



Association of Engineering Societies-Engineering institution of Macedonia (EIM)

Year of Adhesion: 2010

Declared engineers: 7 205

Member associations: Engineering institution of Macedonia is a professional, non-political, non-profit organization established on March 21, 1920, associating 18 engineering societies. EIM is representing young engineers from North Macedonia through the Young Engineers Club and the Club of Engineering Ring Winners.

Dame Gruev 14a - 1000 Skopje, North Macedonia

tel: +3892 3229 040

imi@engineer.org.mk

www.engineer.org.mk

EIM is a unique professional organization uniting engineers with their different interests, building attitudes and policies that would contribute to improving position and the role of engineers in society, especially in valorization of engineering education, expressed through appropriate competence and qualification required on global labour market. In 2016, EIM received the highest national award by the president of the country for achieved results in stimulating and coordinating the development of science and new technologies in all engineering disciplines.

RECOGNITION "INGENEERING RING"

The recognition "Engineering Ring" is unique in the region and beyond. EIM and the Chamber of authorized architects and authorized engineers have awarded the best graduated young engineers for 17 years. The Recognition is patronized by President of the Republic of North Macedonia and aims to promote engineering sciences among the youth and to encourage young engineers in their further professional development. Until now, 170 young engineers, now excellent professionals and scientists, have been awarded. In 2018 EIM celebrated a 15-year jubilee since the first edition of the recognition. In that honour a Monography "15 years Engineering Ring" was issued. In 2019 the recognition changed its shape. Namely, the gold engineering ring is part

of the recognition where the coat of arm of the President of the Republic of North Macedonia is placed.



Jubilee 15 years engineering ring

YOUNG ENGINEERS

To support young engineers in mapping their professional career and favoring the concept of multidisciplinary cooperation which can open new perspectives in their communication, EIM established the Young Engineers Club in 2018 and in the same year it became a member of European Young Engineers. Promoting collaboration among the young engineers, EIM will organize the 46th EYE Conference - Bridging engineering perspectives, at the end

of October 2020 in Ohrid (<http://eyeohrid2020.engineer.org.mk/>). Spreading engineering ideas among students, EIM signed a memorandum of cooperation with National Board of European Students of technology-BEST and participated in their activities: European BEST Engineering Competition 2019 and the panels "Women in engineering" and "From teaching to career: practical work and education".



Agreement with EYE is signed

WOMEN IN ENGINEERING

To raise awareness about gender balance and initiating greater involvement of women in engineering, EIM was the initiator for establishing the WIN (Women IN) platform. As a part of the platform's activities in this period, two international conferences were organized: Second International Conference Women in Energy 2018: Initiative to promote gender balance (<http://win2018conference.wina.org.mk/>) and Third International Conference Women in Industry 2019: Leaders joining to advance gender equality (<https://women-inindustry.mk/>).



Women in industry Conference 2019

NATIONAL STEM PLATFORM

The national STEM Platform was established at a satellite event of the WIN 2018 Conference. The special focus of the platform is supporting gender balance in STEM through activities for bridging the gender gap in education and the job market participation; sharing best practices in implementation of gender equality strategy and organization of workshops on career development for young engineers.

SKILLS FOR SUSTAINABLE ENERGY EFFICIENT CONSTRUCTION

In May 2018, EIM became a partner organization in the Horizon 2020 project "Toward market-based skills for sustainable energy efficient construction" (<http://trainee-mk.eu/>). The main task of EIM is to provide sustainability of the project results through the newly established Knowledge and Skills Management Centre. The core activities of the Centre are: support for personal development of engineers and workers through professional guidance for EE skills; implementation of an approach for recognition of previous learning; creation of Database of certified trainers and certified workers for EE; organization of trainings for Building Information Modelling, Renewable Energy Sources and EE construction; promotion of best approaches for successful market recognition of EE skills. ■



Trainee certification



REPORT OF THE NORWEGIAN FEANI NATIONAL COMMITTEE



Norwegian National Committee for FEANI

Year of Adhesion: 1965

Declared engineers: 134 000

Number of EUR ING: 196

Member associations: The two Norwegian Engineers organizations, Tekna (The Norwegian Society of Graduate Technical and Scientific Professionals) and NITO (Norwegian Society of Engineers and Technologists) are both recognized by the national authorities. This means that both organizations are represented various official bodies, among them the Council of Engineering Education, and other official bodies concerned with engineering matters.

PO Box 1636 Vikta - NO-0119 OSLO

Tel: +47 22 05 35 00

epost@nito.no

www.tekna.no

www.nito.no

The Norwegian economy has continued to recover after four years due to the decline in the oil and gas sector. Unemployment is still high and TEKNA and NITO have been working with different initiatives to address this challenge. This involves emerging discussions about further qualification of the workforce due to new technologies, digitalization and globalization: how to help the workforce to be ahead of the coming changes through lifelong/continuous learning ("on the job training" together with university and governmental schemes). Tekna passed 80.000 members, while NITO passed 90.000 members.

UN Sustainability Goals (SDG)

The SDG have taken a major part in activities, strategic development and focus throughout 2018 and 2019. The SDG were integrated into the association policies. Both member organizations have been working systematically to do their part

in reaching these ambitious targets, from decent working conditions to combatting climate change. Also, to note that Oslo became the "European Sustainability Capital 2019".



Mr Markussen with Mr Bochar

Association membership

Continuous growth of the organizations is of great importance, also including students before they graduate, in order to have credibility as “the engineers’ voice”. Therefore, both Tekna and NITO are present at the universities during matriculation and the weeks thereafter. Both member organizations are working on increasing the numbers of employees to be members of a union.

Cyber Security, Digitalisation and CPD

There has been a strong focus on Cyber security and Civil protection, the engineer’s role in this debate and the lack of competence within this area. The government decided to build “Digital21” as a source of advice and guidance on digitalization for industry and commerce. Tekna and NITO have taken an active part in Digital21. Political influence on the premises for lifelong learning and CPD, also for those with Bachelor- and Master degrees, is considered important.

Political Context

From March 2019 onwards, the trade unions in Norway negotiated agreements and wages. Our members negotiated locally, at each workplace. Norway held municipal and regional elections on 9 September 2019. During August and September, Tekna and NITO hosted events, met with local politicians and took other action to promote issues of importance to its members and citizens.

In August, participation was made in “Arendalsuka”, a week where politicians, journalists, leaders and universities meet to discuss current issues and do networking. In this framework, a seminar on 5G was conducted. Tekna’s major event was a “No planet, no Business” panel debate on sustainability. There were also debates on ICT security and support practice in STEM educations.

NITO and Tekna supported IPCCs report on CCS (Carbon Capture and Storage) and to implement full scale CCS and support CCS as an industry in order to keep global warming below 2 degrees.

FEANI Norway

1th of July 2019 Tekna and NITO switched the Leadership positions of the Norwegian National Committee. This means that Tekna’s Vice president Vidar F. Hansen, replaced Trond Markussen as President, while NITO’s General Secretary Steinar Sørli, replaced Ivar Horneland Christensen as General Secretary. ■

REPORT OF THE POLISH FEANI NATIONAL COMMITTEE



Polish Federation of Engineering Associations

Year of Adhesion : 1992

Declared engineers: 51 000

Number of EUR ING: 405

Member associations: "The Polish National Member of FEANI, i.e. the Polish Federation of Engineering Associations (PFEA) as well as its Member Associations function on the basis of and in accordance with the Polish Law on Associations (Act of April 7 1989). Polish Federation of Engineering Associations is a non-governmental and self-financing organization, which does not get subsidies from the government."

ul. Czackiego 3/5 - PL-00 043 Warszawa

Tel: +48 22 250 22 22 Tel: +48 785 870 461

sekretariat@not.org.pl

www.not.org.pl

As 2018 was the 100th anniversary of regaining independence in Poland, PFEA and its member associations have been involved in number of thematic conferences, seminars and meetings. During the whole programme, the contribution of Polish engineers to regaining and building Polish country and economy was emphasized. One of the most important events of 2019 (World Convention of Polish Engineers) closed the engineering celebrations of 100th anniversary of regaining independence.

During 2018 and 2019 a number of technical conferences were organized by both the Federation and member associations:

World Convention of Polish Engineers

The Polish Federation of Engineering Associations organized the 4th World Convention of Polish Engineers and the 26th Congress of Polish Technicians - "Engineer of the Future" in Cracow, from 13 to 15 June 2019. The event was attended by 350 engineers from Poland and abroad. During the event, the competition "Technicus" for the Best Technical Book of the year was summed up.

Golden Engineer Plebiscite

Organization of two finals of the Golden Engineer Plebiscite (24th and 25th). The Gala of the anniversary 25th final of the Plebiscite took place on 27 February 2019 in the Presidential Palace with the participation of the President of Poland Andrzej Duda.

Technical competitions

The "45th Technical Knowledge Olympics" - a competition for secondary school took place on 11 May 2019, with participation from 7.312 students. 24 winners were selected. In organizing "46th Technical Knowledge Olympics" PFEA decided to modify the existing form of the Olympics. For the first time in history, the first stage of the Olympics was held online (18 October 2019).

"Numerus Primus inter Pares" - a competition with the aim to select the best technical journal from the previous calendar year in terms of dissemination of knowledge and technical culture - a technical and popular-technical journal. The summary of the competition was in 26 May 2018 (31th Edition) and in 11 May 2019 (32th Edition).



Technical Competitions

“Young Innovator” - a competition for primary school students, with its final on 12 June 2018 (11th Edition) and on 3 June 2019 (12th Edition).

Two Finals (8th and 9th) of the Innovation Laurel (7 November 2018 and 10 December 2019) - the aim of the competition is to promote modern products, technologies and services. The winners of the competition are companies or individuals whose innovative products may be of interest to the Polish economy.

Technical conferences

- VI Conference in the cycle “We are united by professional education” - 9 May 2018
- Fifteenth Edition of Engineering Forum, a core event for PFEA - June 2018, in Poznań (“Technology in Recycling”)
- European Technology Forum (PFEA was a co-organizer) - 25-26 September 2018, in Katowice
- Mazovian Technical Days 2018 and II Mazovian Technical Days - 4 October 2019
- “Vocational education for industry 4.0 and the growing services market” - 17 October 2019
- “Professional education in the times of partitions and in the 20 years of Independent Poland” - 24 October 2018
- “Directions of energy development in Poland” - 14 November 2019



World Convention of Polish Engineers

PFEA representatives actively participated in significant meetings concerning the engineering community

- participation in the Days of Polish Education in Greece - March 2019
- participation in the celebration of the 100th anniversary of the Association of Polish Electrical Engineers in Lviv - 26-28 September 2019
- a delegation of Polish engineers participated in the World Engineers Convention (WEC), organized by the World Federation of Engineering Organizations (WFEO) in Melbourne, Australia - 20-22 November 2019

Others

In 2018 PFEA was awarded the Prime Minister’s Award of Honour “Meritorious for Invention”.

Celebration of the 70th anniversary of SIGMA NOT (April 2019) which publishes 33 trade magazines, including the Technical Review which has been published for 153 years.

PFEA is issuing the title of “NOT Expert” who certifies the specialist competence of engineers associated with the organisation.

In 2019, the 15th edition of the Safe Practices and Environment Programme was summarised. The main objective of the project is to disseminate knowledge about the dangers that cause accidents at work and occupational diseases, ways to counteract them. ■



REPORT OF THE PORTUGUESE FEANI NATIONAL COMMITTEE



Ordem dos Engenheiros

Year of Adhesion: 1954

Declared engineers: 56.138

Number of EUR ING: 128

Member associations: The Portuguese FEANI committee was created in 1993, following an agreement signed between the Ordem Dos Engenheiros and the Ordem dos Engenheiros Técnicos. There is no formal coordination of the two institutions.

Ordem Dos Engenheiros - Av. Antonio Augusto de Aguiar, 3-D - 1069-030 Lisboa

Tel: +351 21 313 26 00 - Fax: +351 21 313 26 15

tafonseca@ordemdosengenheiros.pt

ordemdosengenheiros.pt

Activities in 2018 and 2019 concerned:

- interventions in the legislative process on Higher Education titles and degrees, regarding its effects in Engineering Education, in engineers activities and in their professional mobility
- follow-up to the OECD study carried out in Portugal on the regulated professions, regarding the risks associated with increasing deregulation
- interventions towards other professionals in the sense of access to engineering activities, examples of which are (Architects/Direction of Work) and (Nutritionists / Food Engineering)
- legal diplomas impacting some relevant legal regimes: a decree-law on buildings rehabilitation (July 2019), regulatory order regarding euro structural codes national use (September 2019), a law introducing changes in buildings fire safety proceedings (October 2019)
- preparatory activities for the Committee's contributions to the three reports to be produced under the *E4E-Engineers for Europe* project



Portuguese delegation at FEANI ABM 2019

Ordem Dos Engenheiros

- National Engineer's Day 2018, annual meeting day, honouring personalities and relevant Institutions and with public delivery of diplomas and other symbolic materials for the granting of degrees and professional titles
- closure of 2018 Year Program on Climate Change and 2019 Year Program on Material Efficiency
- elections and inauguration of the associative bodies for the term 2019-2022 (March 2019)

- announcement of program “2020 Year on Water Efficiency and Circular Economy”



Ordem Dos Engenheiros Técnicos

- activities related with mobility among engineering professionals in the Community Portuguese Speaking Countries which will result in conferences scheduled for Lisbon, Luanda and São Tomé
- initiatives on sustainability issues, as own activities and in cooperation with similar Institutions in Portuguese-speaking countries
- admission as a member of ISHCCO
- participation in the review of different legislative documents on engineering activity, including the revision and publication of the Engineering Act Regulations for Technical Engineers
- creation of Macaronesian Engineering Association ■



REPORT OF THE ROMANIAN FEANI NATIONAL COMMITTEE



The General Association of Engineers in Romania (AGIR)

Year of Adhesion : 1996

Declared engineers: 12 500

Number of EUR ING: 245

Member associations: In Romania, the first durable, professional engineering association, was founded in 1881, under the name of Polytechnical Society. The Romanian General Association of Engineers was founded in 1918. Both associations coexisted until they merged in 1949. In 1989, the Romanian General Association of Engineers has been reconstituted as a lawful successor of the original associations.

Calea Victoriei nr. 118 - RO-010093 Bucharest

Tel: +40 21 3168993/4 - Fax: +40 21 312 55 31

office@agir.ro

www.agir.ro

Major activities in 2018-2019

Scientific Symposium of the Romanian Engineers from Everywhere - SINGRO

The 13th edition of the Symposium was organized in collaboration with the Transilvania University of Brasov, dedicated to the 100th anniversary of the reunification of Romania in 1918 and to the AGIR Centenary. The theme was "The Role of Engineering in the Development of Romania".

The AGIR Centenary

This 100th AGIR anniversary event was celebrated in November 2019 at the Gheorghe Asachi Technical University, where it was founded.

Workshop: "Natural Resources Intended for Textile Industry - Present and Future"

The event was organized by AGIR, Academy of Technical Sciences of Romania (ASTR), Academy of Agricultural and Forestry Sciences Gheorghe Ionescu-Șișești (ASAS) and the National Institute for Research and Development of Textiles and Leather Products (INCOTEP). Topics were the development in the production of textile fibres, natural leather and the capacity to put them into value for Romania.



SINGRO 2016

The General Assembly 2019 of AGIR

Through the GA meeting, the importance of the AGIR structures at central and territorial level was emphasized in order to increase the contribution of the engineering community to identify and address the major problems of the development of the Romanian society at present. The adopted documents create the necessary prerequisites for the further improvement of the activity of AGIR and in the context of Romania's membership in the European and Euro-Atlantic structures.

Symposium on Technological Progress – Research Results, 14th edition

As in previous editions, the event had on the agenda scientific papers from the various technical-engineering fields. Punctual results were presented, as well as inter and multi-disciplinary synthesis works, theoretical ideas, experiments and definitive achievements, from laboratories of companies, educational institutions and research institutes.

AGIR National Forum

The Forum was dedicated to the elaboration of a set of documented proposals regarding the valorisation of the resources in the South-West Oltenia Region. The meeting was part of the actions aimed at forming and encouraging the culture of constructive dialogue, synergistic dialogue between professional associations and local administration, respectively the county councils.

AGIR Awards Competition

The AGIR awards were established in 1995. They are awarded to individuals and institutions for special engineering works (designed, designed and applied) and to original books, of high technical-scientific level, on several sections. ■



AGIR Awards



REPORT OF THE RUSSIAN FEANI NATIONAL COMMITTEE



Russian Union of Scientific and Engineering Associations (RUSEA)

Year of Adhesion : 2007

Declared engineers: 110 000

Number of EUR ING: 6

Member associations:

1. Interregional Scientific and Technical Society of Woodworking Industry
2. Russian Society of Geodesy, Cartography and Land Management
3. The Russian Geological Society
4. Russian Engineering and Technical Society of Railway Workers
5. The Russian Ceramic Society
6. Scientific and technical society of oil and gas workers named after academician I.M. Gubkin
7. Russian scientific and technical society of radio engineering, electronics and communications named after A. Popov
8. Russian Scientific and Technical Welding Society
9. The Russian Scientific and Technical Society of Shipbuilders named after Academician A.N. Krylov
10. The Russian Chemical Society named after D.I. Mendeleev
11. Society of Aircraft Builders
12. Nuclear Society of Russia
13. Tunneling Association of Russia
14. Euro-Asian Geophysical Society
15. Russian Union of Textile and Colorist Chemists
16. Scientific and technical association of scientists and specialists in transport construction
17. Nanotechnological Society of Russia
18. Russian Scientific and Technical Vacuum Society named after Academician S.A. Vekshinsky
19. Hoisting and transport scientific and technical society: regional associations of specialists
20. Association of Technical Universities
21. A non-departmental expert council on aerospace matters
22. The Russian Youth Polytechnic Society
23. All-Russian public organization "Academy of Engineering Sciences named after A.M. Prokhorov"

Kursovoi pereulok, 17 - RU-119034 Moscow

Tel: + 7 495 6951608 - Fax: + 7 495 6951629

usea1866@gmail.com

RUSEA activities included a number of events and events, in particular:

- conducting an interagency Seminar on the problems of scientific and technological development of Russia on 31 October 2018, in Moscow
- conducting an interagency Seminar on the problems of scientific and technological development of Russia on 26 December 2018, in Moscow
- organising a Round Table on the theme “The national system of professional public accreditation of educational programs of higher education in compliance with international criteria” on 11 February 2019, in Yaroslavl
- summing up and rewarding the winners of the All-Russian competition “Engineer of the Year” from February 19 to 21 February 2019, in Moscow
- summing up and rewarding the winners of the Award of the RUSEA on science and technology “Hope of Russia” on 21 February 21 2019, in Moscow ■



REPORT OF THE SERBIAN FEANI NATIONAL COMMITTEE



The Union of Engineers and Technicians of Serbia (UETS)

Year of Adhesion : 2007

Declared engineers: 5100

Member associations: The UETS has individual members and 45 collective members in the Republic of Serbia: 20 republic's professional associations, 7 republic's multidisciplinary engineering-technicians' associations, 1 provincial engineering technicians' association, 17 municipal and regional engineering-technicians' associations.

Kneza Milosa 7a/1 - SER-11000 Beograd - Republic of Serbia

Tel: + 381 11 3230067 - Fax: + 381 11 3230067

office@sits.rs

www.sits.org.rs

Various events were organized in 2018 and in 2019:

- the 150th anniversary celebration of the Union of Engineers and Technicians of Serbia held under the auspices of the Serbian Academy of Sciences and Arts in May 2018
- exhibition "150 Anniversary of the Union of Engineers and Technicians of Serbia - from the Technicians' Society to the Contemporary Association" held in the Museum of Science and Technology in Belgrade from 27th November 2018 - 8th January 2019
- a Scientific Conference entitled „Past, Present and Future of Engineering and Architecture in Serbia“ (co-organized with the Serbian Academy of Sciences and Arts) held in May 2018
- six multidisciplinary Round Table discussions titled „The Future Effects of Climate Change on Cities in Serbia“ (co-organized with the Academy of Engineering Sciences of Serbia)
- 49th International Congress and Exhibition on Heating Refrigeration and Air Conditioning held in December 2018 in Belgrade and 50th International Congress and Exhibition on Heating Refrigeration and Air Conditioning, held in December 2019, organized by the Union of Mechanical and Electrical Engineers and Technicians of Serbia
- scientific conference "The Fourth Industrial Revolution" held under the auspices of the Minister of Innovation and Technological Development in December 2019



4th Industrial revolution



Conference in Serbian Academy of Sciences and Arts May 2018

- 40 International Conference “Water Supply and Sewage” held in October 2019
- competition for the annual award “The Path of Nikola Tesla” established In order to promote the research spirit of Nikola Tesla and encourage young innovators in the areas of all technical professions
- two architecture and urban planning competitions for the best designs organized by our member the Association of Architects of Serbia (The Young Innovators Competition)



International Conference Water Supply and Sewage 2019

Furthermore, UETS worked with the Serbian Chamber of Engineers concerning reorganization and engineering faculties and industry and for a process of its constitution in new formats. Conferences and scientific meetings took place in several fields: textile engineering, architecture, environmental protection, civil engineering, mechanical engineering and establishment of three new municipal associations (more than 150 different activities). Professional (Specialist) exams in cooperation with the Ministry of Mining and Energy were organized. Also several publications were issued (magazine Technics and several documents and proceedings). ■



REPORT OF THE SLOVAKIAN FEANI NATIONAL COMMITTEE



Slovak National Committee for FEANI (SNKF)

Year of Adhesion : 1995

Declared engineers: 19 500

Number of EUR ING: 141

Member associations: The Association of Slovak Scientific and Technological Societies (ZSVTS) currently embraces 46 member societies active on different fields of science and technology such as transportation, civil or mechanical engineering, industrial chemistry, communication technologies, energetics.

Kocel'ova 15 - 815 94 Bratislava - Slovak Republic

Tel: + 421 2 5020 7649

E-mail: zsvts@zsvts.sk

http: www.zsvts.sk

ZSVTS considers for very significant our activities in the Science and Technology Week in Slovakia 2019, where ZSVTS participated in the following events:

- participation in the Science and Technology Festival: several members of the ZSVTS participated in a survey of youth technical projects. The event was held in Bratislava.
- professional event – seminar Chemistry in Practical Life: ZSVTS in cooperation with the Slovak Society of Industrial Chemistry and the Slovak Society for the Environment prepared a professional event, which was opened by Mr. Dušan Petráš, president of ZSVTS and moderated by Mrs. Božena Tušová, Vice president ZSVTS. The event had 3 parts: presentations of organizers, presentation of the laureates of the Scientist of the Year of the Slovak Republic and the handing over ZSVTS awards.
- Price of Science and Technology: the support the Awards for Science and Technology that was carried out in Bratislava. ZSVTS nominated for the award for the year 2019 these representatives: category Science and Technology - Mr. Hatala; category Life-long merit in Science

and Technology: Mr. Feher, Mr. Verbich (Figure 1), Mr. Schwendt; category Science and Technology up to 35 years - Mrs. Dupláková; category Science Populariser – Mr. Tuma, Mr. Ferianc, Mrs. Tušová, Mr. Rusko.

- accompanying events of ZSVTS: ZSVTS and its member organizations has carried out within a broader week of the day 16 professional events of the conference type, symposium, course, seminar, competition, tour of professional works. ■



Mr. Otto Verbich during his awarding



REPORT OF THE SLOVENIAN FEANI NATIONAL COMMITTEE



Slovenian National Committee for FEANI

Year of Adhesion : 1996

Estimated number of engineers: 10 460

Number of EUR ING: 105

Member associations: The first interdisciplinary society of engineers was formed in Slovenia in 1911. In 1945, engineers and technicians united into the joint Association of Engineers and Technicians of Slovenia and now is changed in The Slovenian Engineers Association which has been working from then.

Zidovska 1 - SI-2000 Maribor (Secretariat of NC SI FEANI)

Karlovska 3 - SI-1000 Ljubljana (Slovenian Engineers Association)

Tel: +386 2 250 13 23 - Fax: +386 2 250 13 24

zdi@zdi-mb.si

www.zdit-mb.si/feani

The Slovenian National Committee of FEANI (NC SI) is organised as a part of the Slovenian association of Engineers (SIZ). Relationships are held with the universities in Ljubljana and in Maribor and contacts kept with to the Deans of technical faculties.

Erasmus+ Project

NC SI FEANI was an active partner together with FEANI, VDI, HIS, DSVTS, U.PORTO in the project NFIF "Creation of a system for the documentation and validation of non-formal and informal learning outcomes (NFIF)". In this Erasmus+ project the goal was to create the methodology of self/expert validation and assessment of informal and non-formal education of engineers (reference to the C part of the Engineering Card to upgrade the information about the education after formal education).

EEED and Contributions to FEANI

The PMC FEANI has completed the merging of the FEANI INDEX and the ENAEE databases within the EEED. We have updated data of the Slovenian HEIs' which provide engineering programs that are included into the INDEX and/or have the EUR-ACE label.

The NC SI FEANI sends a member in the FEANI European Monitoring Committee (EMC). ■



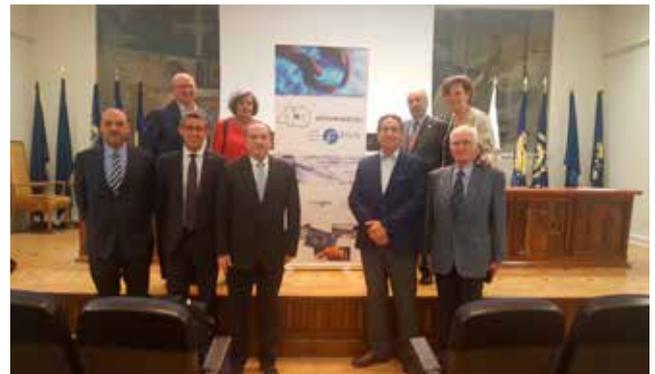
REPORT OF THE SPANISH FEANI NATIONAL COMMITTEE



Comité Nacional Español de la FEANI
Year of Accession: 1952
Estimated number of engineers: 265.000
Number of EUR ING: 3.992
Member associations: The FEANI national member for Spain is the Comité Nacional Español de la FEANI. This committee is constituted by eight delegates, belonging to IIE (4) and INGITE (4), and represents the Spanish engineering profession, as a whole, in FEANI. Both member bodies have close connections with technical universities, governmental institutions and industry, either directly or through the associations or federations belonging to each institute.
General Arrando, 38 - E-28010 Madrid
Tel: + 34 91 308 4652
email: snceani@iies.es
www.feani.españa.es
www.iies.es / www.ingite.es

Second Institutional Act of Engineering and 40th Anniversary of the SNC

The Spanish National Committee for FEANI (SNC) organized the second “Institutional Event of Engineering” together with its 40th anniversary of SNC (collaboration of the two Institutes, IIE and INGITE). The event was entitled “EUR ING convergence, profiles & opportunities” and included participation from the world of politics, academics and first-level professionals.



Participation in FEANI

The SNC appointed three members to the FEANI Working Group on the UN Sustainability Development Goal (SDG). Monthly meetings of the SNC are held in Spain. Participation and collaboration is ensured at meetings of the FEANI Regional meeting South and other FEANI meetings such as the GA, NMF and EMC meetings.

Meetings and Events

Each of the two member institutes has been holding conferences and meetings to promote the most outstanding common aspects for the promotion of recognition for the knowledge and talent of its engineers, such as:

- IIE:
 - Work meetings of Technical Committees in multiple areas of Engineering
 - Conference "The axes of economic power. Geopolitics of the world board "
 - Conference "Corporate Communication and Social Networks"
 - Seminar "Successful Sector Masters. Complementary training for Engineers"
 - "JOIN2019 - Young Engineers Congress, 5-6 April 2019
 - Conference "Engineers in the Spanish Public Administration"
- INGITE:
 - Meeting with student associations, representatives of the Branches of Engineering Degrees
 - Visits to the NATO Operations Center on its 70th anniversary
 - Meetings of official recognition and technical work with the national regulatory authority ENAC
 - Communications and relations with engineering schools to
 - Contrast the implementation of common models of professional
 - Progress and European projection

CONFERENCES ORGANIZED BY THE INSTITUTO DE LA INGENIERIA DE ESPAÑA ALONG 2019

Dates

- 14/01/2019 – Jornada con D^a María Teresa Estevan Bolea Premio Mundial 2018
- 21/01/2019 – De tu idea a tu empresa
- 30/01/2019 – Los ejes del poder económico.
- 06/02/2019 – Jornada Innotren 2019, Innovación en el sector Ferroviario
- 14/02/2019 – Másteres Sectoriales de éxito. Formación
- 20/02/2019 – Las Autopistas Ferroviarias en la Península Ibérica
- 25/02/2019 – Comunicación Corporativa y Redes Sociales
- 27/02/2019 – Ingeniería Artificial
- 04/03/2019 – Evolución y Avances en la Pesca
- 12/03/2019 – Infraestructuras
- 20/03/2019 – Ingeniería y Arbitraje
- 20/03/2019 – Mitos y Realidades de la Cuestión Ambiental y de la conservación de la naturaleza
- 25/03/2019 – Europa y África: la ingeniería y los enlaces, el estrecho de Gibraltar
- 28/03/2019 – Contribución de la Defensa al avance tecnológico y sus aportaciones a la ingeniería
- 01/04/2019 – Políticas de Ingeniería e Industria
- 04/04/2019 – Energía, Agricultura y Medio rural. Ante el marco estratégico de Energía y Clima
- 04/04/2019 – Agenda 2030 ODS 17 la trazabilidad de proyectos ODS
- 09/04/2019 – Cristobal Colón, noble Genobés, Grande de España
- 11/04/2019 – La Energía Fusión Nuclear
- 22/04/2019 – La Inteligencia Artificial y los Seguros en la gestión de
- 25/04/2019 – Networking con RRHH
- 29/04/2019 – Innovadores Hispánicos Pioneros de las ingenierías Aeronáutica y Aeroespacial
- 06/05/2019 – 1ª Feria Internacional de Defensa, Feindef
- 06/05/2019 – 1ª Centrales Nucleares, Actores, Políticas y
- 07/05/2019 – Digital Twin ¿Qué ocurrirá si no unimos realidad y datos?

- 08/05/2019 – 40º aniversario del Traspase Tajo desarrollo
- 21/05/2019 – Colaboración entre empresas
- 22/05/2019 – Agua y Economía en los ODS
- 27/05/2019 – Las tecnologías de Blockchain y sector Marítimo
- 29/05/2019 – Gestión de las infraestructuras en los Aeropuertos en Latinoamérica
- 30/05/2019 – La inventiva en la ingeniería
- 03/06/2019 – Presente y futuro del
- 04/06/2019 – La gobernanza de los puertos. Fachadas marítimas y dominio público portuario
- 05/06/2019 – Presentación Libro Juan Miguel Villar Título de Ingeniería Geopolítica del tablero mundial complementaria para Ingenieros de Éxito el Aeropuerto de Teruel 17: Modelos de Gobernanza, Capital Humano, las ONG en emergencias. Tecnologías. Tajo-Segura, Infraestructura de progreso y para España. Agua y Agenda 2030 Programa Galileo en España Villar-Mir
- 11/06/2019 – Turismo Sostenible
- 13/06/2019 – Homenaje a la ingeniería en situaciones de emergencia, el rescate de Totalan
- 17/06/2019 – Eficacia en la Contratación del Sector Público
- 24/06/2019 – Plásticos, Sostenibilidad y Economía Circular en la Industria Química
- 27/06/2019 – La Estrategia Nacional de Ciberseguridad 2019
- 04/06/2019 – La Carrera Espacial
- 18/09/2019 – Una nueva generación de sponsors para la fragata F-110
- 19/09/2019 – Jornada de presentación del Comité
- 30/03/2019 – Ley de cambio climático y transición energética
- 01/10/2019 – Centros de Investigación en Ingeniería Marítima
- 09/10/2019 – Presentación del Comité Ingenia
- 10/10/2019 – Jornada de Casos de Éxito
- 14/10/2019 – Jornada sobre tráfico marítimo y clima
- 15/10/2019 – Reutilización del agua
- 16/10/2019 – Jornada Planificación y Diseño de Infraestructuras Multimodales
- 22/10/2019 – Presencia versus Productividad
- 24/10/2019 – Dobles másteres habilitantes
- 30/10/2019 – Horizonte Europa, nuevo programa marco de investigación e innovación: retos y oportunidades
- 04/11/2019 – Propulsión con Energías Alternativas
- 07/11/2019 – Semana de la Ciencia: el Sistema Internacional de Unidades
- 13/11/2019 – Ingeniería Española y el Acceso Universal a la Energía
- 20/11/2019 – Día del Fuego en Madrid
- 20/11/2019 – Jornada con el Ministerio de Defensa
- 25/11/2019 – La importancia del agua en el medio rural
- 03/12/2019 – Ordenación y Estrategias del Espacio Marítimo ■



REPORT OF THE SWEDISH FEANI NATIONAL COMMITTEE



Swedish National Committee for FEANI

Year of Adhesion : 1960

Estimated number of engineers: 150 000

Number of EUR ING: 328

Member associations: The Sveriges Ingenjörer is an exclusive service and professional organization for Sweden's graduate engineers and student members at the Swedish technical universities and institutes.

Sverige Ingenjörer,

Malmskillnadsgatan 48 - PO Box 1419 - SE - 111 84 Stockholm

Tel: + 46 8 613 80 00

Jenny.grensman@sverigesingenjorer.se

www.sverigesingenjorer.se

Lifelong Learning and the Importance of CPD

During 2018-2019, much focus has been on the needs for continuous professional development (CPD), including graduate engineers who already have a university diploma.

The Swedish Association of Graduate Engineers (Sveriges Ingenjörer - SI) has, under the name of "A Contract for Competence", started a discussion with representatives for employer organizations and universities to try and elaborate on a model to give engineers access to specialized upskilling throughout their careers. In addition to this collaboration, its report "Time, Money and Collaboration" targets the need for better continuous professional development in the companies. As a member of the Association of Nordic Engineers (ANE), the Association also participates in an interesting work financed by Erasmus +, investigating what kind of higher education an engineer will need in the future. ANE has also made a report on the state of CPD among our members.

The Association, in cooperation with major national HEIs and Sweden's most important employer organizations for Industry and Services have elaborated on a model for Continuing Professional Development on a national level to provide advanced CPD, the project "Study Friday a New Approach to Lifelong Learning", including seven proposals.

Employment Security

The Association has put a lot of effort into explaining at smaller company level the complex Swedish legal framework for employment security, hindering companies from growing. It was highlighted that employment security promotes innovation and creativity in the work place.

Strategy on Salaries

Every year, the members of the Association answer a survey about their professional situation. Over the years, it was noticed that engineers, though relatively well paid, are lagging behind other white collars when it comes to income development during their career. To stop this, in the context of the collective Bargaining last Autumn, the Association has

adopted a specific "Salary Strategy". This embraces different activities like communication with members and addressing the problem at employers' and politicians' level.

Sustainable AI

During fall 2018, the Association has been initiating "AI discussions" where experts from society and industry come together and debate on the subject of "Responsible AI" and what an organization such as SI can do to influence the technological development to the benefit of a sustainable future. Initial focus has been on ethical questions. The goal is to come up with a policy recommendation as well as a material for the use of the regional organisations.

Work around the clock

The flexible working life where engineers can work where ever and whenever is presents also challenges. To frame the flexibility in a sustainable way for our members' health and careers we have started a project trying to define a healthy, modern working life.

Globalization and the Nordic Trade Union Model

In August 2019, the Association hosted an event where local representatives from the Nordics came together to discuss how to strengthen and safeguard the Nordic cooperation model between employees and employers. As a follow up we will create stronger support for our local representatives to build knowledge and relations in order to keep and gain influence at the workplace. ■



REPORT OF THE SWISS FEANI NATIONAL COMMITTEE

SWISS ENGINEERING
STV UTS ATS

sia



Swiss National Committee FEANI/WFEO

Year of Adhesion : 1951

Declared engineers: 127 000

Number of EUR ING: 891

Member associations: The engineers of Switzerland are jointly represented in FEANI by the two largest and oldest professional associations in engineering and architecture: the Swiss Society of Engineers and Architects SIA and Swiss Engineering STV. With a combined membership of 27'000 individuals and 2'500 companies, the interests of engineering and architecture professionals are represented with a strong voice in the public arena as well as in political discussions, while offering pertinent membership services, a strong network for professional relationships and continued career development opportunities.

Swiss National Committee FEANI/WFEO c/o SIA Selnaustr. 16 Postfach - CH-8027 Zürich

Tel: +41 44 283 15 15 - Fax: +4144 283 15 16

feani@sia.ch

www.sia.ch / www.swissengineering.ch

Engagement around FEANI

The Swiss National Committee FEANI/WFEO (NK CH) is composed of SIA and SwissEngineering. In terms of personnel changes, in January 2018, Mr. Hannes Treier became the newly elected president of NK-CH for a term of three years. There was a renewal of the National Committee with two new additions from SwissEngineering: Mr. Francisco Borge and Vasileios Papageorgiou, President and Vice-President of the Professional Group International Swiss Engineers respectively.

The following people were delegated to FEANI Task Forces and activities to help in shaping FEANI's future:

- Mr. Hannes Treier to the TF of the Status of Professional Engineers and elected to the Executive Board at the General Assembly in October 2018
- Mr. Stefan Arquint to the TF on Strategy

- Mr. Patrik Thalparpan as member of the European Monitoring Committee (EMC); in 2019 Dr. J.-Martin Hohberg replaced Mr. Patrik Thalparpan in the EMC
- Dr. J.-Martin Hohberg regarding Common Training Framework (CTF) activities
- Mrs. Jeannine Keller-Nielsen to the WG SDGs and WG STEM.

Developments in Swiss EEED Management

Under the leadership of Dr. J.-Martin Hohberg NK-CH was able to apply for remote maintenance of the EEED listings and since Fall of 2019 this was authorized through the EMC.

After discussions within the Committee, higher professional schools will not be included in the EEED and will therefore do not receive automatic recognition for the EUR ING title.

However, they can still acquire the EUR ING title via special case with 15 years of experience as an engineer.

Themes and Goals within the Member Organisations

With FEANI shifting its focus from mobility of engineers within Europe to social and political engagement, the member organisations within the UK-CH have also been able to analyse their engagement and goals in these areas. The UN Sustainable Development Goals have been a helpful starting point in viewing our activities through a broader lens.

Both member organisations drafted and launched new mentoring programs in 2018-2019, matching young engineers with experienced engineers. However, the mentoring can

flow in both directions. There may be areas, for example when it comes to digitization or new software, where the younger “mentee” actually provides insight for the older “mentor”.

Although both member organisations have been active in terms of climate change and climate adaptation for years, in 2018-2019 both have taken substantial steps to make their positions to the public and their members clear. These steps have taken the form of position papers, mission statements, modernised and revised guidelines for engineers, as well as direct appeals to politicians and local governments. ■



REPORT OF THE TURKISH NATIONAL FEANI COMMITTEE TMMOB

tmmob
TMMOB MÜHÜRÜNE VE KİMLİK OYUNLARI BİRLİĞİ



Turkish National FEANI Committee TMMOB

Year of Adhesion : 2017

Member associations: 23

Number of EUR ING's: 7

Selanik Caddesi No 19 Kat 1

TR-06640 Yenisehir-Ankara

+90 312 418 12 75

<https://www.tmmob.org.tr>

Major activities in 2018-2019

The Union of Chambers of Turkish Engineers and Architects' (TMMOB) membership to FEANI was approved by the FEANI GA as from 1 January 2017. There are about 550.000 TMMOB members. TMMOB has been maintaining activities with its 24 Chambers, 213 branches of its Chambers and 50 Provincial Coordination Councils. TMMOB aims to represent the engineers and the architects of our country in professional, economic, social, and cultural areas; protect and improve their rights and interests on the basis of the common interest of our people; ensure their professional, social and cultural development; and provide a common ground to use their professional experiences for the benefit of public. In this respect, it comprehends, interprets, and then informs the public on the social, political, and economic dimensions of the developments in their professional areas and in policies concerning their professions. It also prepares suggestions concerning the formulation of such policies for the common benefit of the public and to struggle for the enforcement of them.

Meetings and Reports

In 2018, TMMOB with its chambers organized more than 100 symposiums, congress and workshops and prepared related



reports. More than 4.000 people participated into these activities. Prominent examples are listed below:

- Computer Engineers Council
- 4th Geothermal Resources and Natural Mineral Waters Symposium
- Coastal Engineering Symposium
- 13th National Chemical Engineering Congress, Lift Symposium
- 19th International Metallurgy and Materials Congress



REPORT OF THE UKRAINIAN FEANI NATIONAL COMMITTEE



Ukrainian National FEANI Committee (USEAU)

Year of Adhesion : 2014

Member associations: 39

Number of EUR ING: 1

Union of scientific and engineering associations of Ukraine (USEAU)

21 Sichovikh Striltsiv St, Kiev, 04053, Ukraine

Ukraine - Tel: +38 (044) 272 14 61 - Fax: +38 (044) 272 42 44

info@snio.org.ua

<http://snio.org.ua/eng/>

The main direction of USEAU activity in 2019 was the further development of National Register of Engineers. After the number of meeting and consultations we preliminary agreed the structure of this Register.

The holder of National Register of Engineers will be a new body. It is on the stage of official registration in the Ministry of Justice of Ukraine. The name of this new organization is Engineers for Ukraine (E4U). E4U Board consists of 13 honorable persons with engineering/natural science backgrounds.

It was agreed that the Register should be built as cooperation efforts of the number of organizations: as a rule, one institution will be responsible for filling one level. In some cases, e.g., for school pupil level, we plan that it should be at least three organizations.

USEAU was authorized by FEANI to hold the Register of Engineering Cards and EUR ING in Ukraine. ■

The screenshot shows the website for the Register of Certified Engineers. At the top, there is a navigation menu with links: ABOUT US, OUR PROJECTS, ENGINEERING DATABASE, NEWS, CONTACTS, EN, and a search icon. Below the navigation is a header with the text "REGISTER OF CERTIFIED ENGINEERS" and a background image of a pen on a blueprint. The main content area features a vertical list of qualification levels on the left, labeled "Step / Кваліфікація" on the y-axis:

- IV Honorary members →
- III Highly qualified engineers →
- II Primary qualification →
- I Future engineers →

To the right of this list is a box titled "Register of Certified Engineers" containing the text: "The Certified Engineers Registry is a unified certification system designed to cover all stages of a professional life - from school to honored engineer." Below this text is a "read more" link. At the bottom of the page, there is a footer with contact information in both Ukrainian and English, including the address: "Kiev, eng. Chekhov Striltsiv, 21, 04-210" and phone number: "(044) 272-14-61".



FEANI – European Federation of National Engineering Associations
 Prof. Dr. José VIEIRA
 President

Jose Vieira



ASD – AeroSpace and Defence Industries Association of Europe
 Mr. Jan PIE
 Secretary General

Jan Pie



BEST – Board of European Students of Technology
 Ms. Antonia NANAU
 President

Antonia Nanau



CECIMO – European Association of the Machine Tool Industries
 Mr. Filip GEERTS represented by Mr. Vincenzo RENDA
 Director General

Filip Geerts



CEMBUREAU – The European Cement Association
 Mr. Koen COPPENHOLLE
 Chief Executive

Koen Coppenholle



EFCA - European Federation of Engineering Consultancy Associations
 Mr. Kevin RUDDEN represented by Mr. Jan VAN DER PUTTEN
 President

Jan van der Putten



ENAAE – European Network for Accreditation of Engineering Education
 Prof. Bernard REMAUD
 President

Bernard Remaud



EU STEM COALITION
 Mrs. Beatrice BOOTS
 Executive Director

Beatrice Boots



EYE – European Young Engineers
 Mr. Chris WATERS
 Secretary General

Chris Waters



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 Decaan, Faculteit Industriële Ingenieurswetenschappen

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Marc Goossens



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 Verein zur Förderung des MB am tgm**
 Prof. Gabriele SCHACHINGER
 General Manager

Gabriele Schachinger



c/o REGUS EU Commission
Schuman Square 6/5
B-1040 Brussels
+32 2 234 78 78
secretariat.general@feani.org
www.feani.org



c/o REGUS EU Commission
Schuman Square 6/5
B-1040 Brussels
+32 2 234 78 78
secretariat.general@feani.org
www.feani.org