European Council of Civil Engineers

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75th ECCE General Meeting

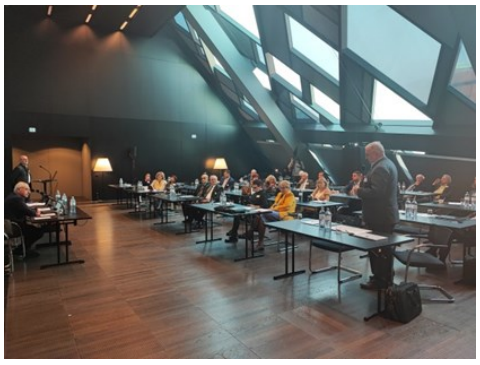
The 75th General Meeting of the European Council of Civil Engineers (ECCE) convened in Vienna on 3rd and 4th November 2022. The event was hosted by the Federal Chamber of Architects and Chartered Engineering Consultants of Austria.

Opening ceremony of the 75th ECCE General Meeting by ECCE President, Andreas Brandner

Austrian Federal Chamber Vice President and ECEC President, Klaus Thurriedl

Opening the general meeting, ECCE President Engineer Andreas Brandner highlighted the important role of civil engineers in tackling climate change and in achieving the goals set by the UN 2030 Agenda for Sustainable Development. He stated that civil engineers are at the forefront of addressing climate emergency and the subsequent challenges that our planet and society face and in order to succeed a shift in the way projects are approached is necessary. Brandner remarked that high quality education and CPD for engineers is required as well as high standards for accessing the profession, and committed that ECCE together with partner associations will continue working towards this direction ensuring the essential conditions for engineers.

Brandner referred to ECCE's involvement in current issues of the construction industry and focused on the duty and responsibility that civil engineers carry to ensure safety of infrastructure and buildings for users in the long term by promoting a holistic approach and by adopting appropriate measures for the inspection, monitoring and maintenance of buildings and infrastructures.



75th ECCE General Meeting

Brandner also remarked that ECCE is in the process of developing its Strategic Plan for the next years endeavoring to set a concrete mission and an action plan for ECCE which will be aligned to ECCE members' values and standards. The strategic plan will be finalized beginning of 2023. The ECCE president called for support and contribution by its members in this regard.

Klaus Thurriedl, Vice President of the Federal Chamber of Architects and Chartered Engineering Consultants in his opening speech focused on the future of licensed engineers in Europe. He remarked that the European Commission is making a new attempt to deal with a Common Training Framework for engineers in Europe and

that there is an open door and an invitation for ECCE and the European Council of Engineers Chambers (ECEC) to get involved and work on this very important issue.

Thurriedl highlighted that the EC with all the deregulation measures and infringement procedures against every single state in Europe jeopardizes the future of licensed engineers in Europe and this becomes a matter of survival for engineers. In his opinion the EC considers that engineers require a regulated profession in order to safeguard their money and their business, whereas the truth lies with the fact that engineers aim to ensure quality and independence in their profession which goes hand in hand with high quality education. Thurriedl concluded that we have a unique opportunity to lead the discussions and influence Brussels in the direction that is beneficial for engineers and the society subsequently, and for this reason we need to concentrate our joint efforts and work hard to achieve this.

The 75th ECCE General Meeting was held in hybrid format and more than 40 delegates from the ECCE member countries as well as invited guests from the Engineering Association of Mediterranean Countries (EAMC), the European Council of Engineers Chambers (ECEC) and the Engineers Ireland Civil Engineering Division participated in the event.

During the 75th ECCE General Meeting President Brandner presented ECCE's activity report since the last ECCE General Meeting that was held in July 2022, in Malta. He also delivered an overview of the latest news in the Construction sector including the High Level Construction Forum, the Construction 2050 Alliance and the New European Bauhaus in which ECCE participates. Special reference was made to the need for maintenance of the European Infrastructure which is a topic that was highlighted also in the 74th ECCE General Meeting when the Declaration of Valetta was released stressing the magnitude of the lack of proper maintenance of the European Infrastructure and the devastating results it brings. ECCE will undertake the creation of a Position Paper on this topic in collaboration with other European organizations which is expected to be finalized within the next year.

An important highlight of the 75th ECCE General Meeting was the presentation of the work that has been carried out so far in relation to the ECCE Strategic Plan for the next years. The report was presented by the ECCE Executive Board Member Perit Dr Jeanette Muñoz Abela, who gave an overview of the process and the results that have been assembled so far as well as the next steps for reaching a concrete and comprehensive plan for ECCE's future in the next years. Part of the process will be the meeting with the ECCE Past Presidents who will help us understand ECCE's past and will enlighten us with their experience as well as the meeting with the current Presidents of the ECCE member organizations who will bring valuable input regarding the mission and vision of ECCE in the future. The results of this work will feed into the planning of the ECCE strategy that will be concluded in the first quarter of the next year and will be finalized and ready for adoption in the 76th ECCE General Meeting, in spring 2023.

ECCE ExBo Member, Jeannette Muñoz Abela

The ECCE budget proposal and membership fees for 2023 were presented by the ECCE Vice President/ Treasurer Helena Endriksone and adopted by the General Assembly. Both topics will be thoroughly considered and further reviewed for the years to come as part of the ECCE Strategic Plan.

ECCE Vice President/ Treasurer, Helena Endriksone

The 75th ECCE General Meeting was an opportunity for ECCE members to openly share and discuss the main issues they face in practicing the civil engineering profession in their countries. This time the discussions focused on the requirements for obtaining a license to practice the civil engineering profession in each country, the requirements for Lifelong Learning, the liability insurance and the requirements for providing civil engineering services in other countries. Four presentations were delivered by representatives of the four regions of Europe (North, West – Central, East, and South) considering the questions set through a survey. Following the presentations a vivid and productive dialogue among the delegates stemmed from the results of the survey, which underlined the importance of holding space for exchange and open discussions in the General Meetings. In connection to the findings of the survey and the importance of providing a source of information to our members the ECCE Executive Board has decided to undertake the update of the book "Civil Engineering Profession in Europe", which was published in 2005 and populate it in a digital format with current data of all European Countries.

What is more, the President of the Cyprus Association of Civil Engineers Evangelitsa Tsoulofta from Cyprus which will be the host country of the 76th ECCE General Meeting delivered a presentation announcing the dates, the venue and the draft program of the meeting. The 76th ECCE General Meeting will be held on 25th and 26th May,

2023, in Nicosia and it will be combined with the 8th International Conference “Construction Safety and Health” that will take place on 26th and 27th May. Last but not least, the President of the Ordem dos Engenheiros of Portugal Fernando de Almeida Santos announced that Portugal would like to host the 80th ECCE General Meeting in May 2025, in Funchal, Madeira. The call for proposals for hosting the 77th – 79th ECCE General Meetings remains open.

The materials, presentations and photographs of the 75th ECCE General Meeting can be consulted at the ECCE website here.

The European Council of Civil Engineers would like to express its gratitude to the Federal Chamber of Architects and Chartered Engineering Consultants of Austria for the successful organization of the 75th ECCE General Meeting and their excellent hospitality.

ECCE’s position on Infrastructure Maintenance

The **Declaration of Valetta** which was announced during the 74th ECCE General Meeting, on 15th July 2022, in Valetta, Malta presents ECCE’s position on infrastructure maintenance. The Declaration of Valetta stresses the magnitude of the lack of proper maintenance of the European Infrastructure and the devastating results it brings. It calls ECCE members – the civil engineers all over Europe – for readiness to take responsibility for an independent and thorough status report and solution finding process to make Europe’s infrastructure fit for future challenges as the Green Deal.

ECCE’s position on infrastructure maintenance

Declaration of Valetta, 15th July 2022

Current situation

Most of the European infrastructure – traffic infrastructure rail and road, water and waste water infrastructure, energy generation and distribution, telecommunications dates from the 60s to 80s of the 20th Century.

Europe’s infrastructure is a vital and necessary part of our social and commercial welfare; therefore a sustainable and resilient infrastructure is a must.

Financial situation

Due to austerity politics and privatization money for maintenance and upgrade was lacking causing poor condition of infrastructure all over Europe.

Technical condition

Due to that and also tremendous changes in design loads and speeds,environmental impacts the technical condition is poor to very poor.

Failures and collapses are a reality and can be expected even more in thefuture.

What to do?

It is necessary to prepare a status report and further institutionalizemonitoring measures and regularly audits in a uniform manner immediately.

As a result budgets for maintenance and upgrading have to be set up.

Who can do this?

ECCE’s members – the civil engineers all over Europe – are ready to take the responsibility for an independent and thorough status report and solution finding process to make Europe’s infrastructure fit for future challenges such as the Green Deal.

We appeal to politicians and public all over Europe, **We have to do it now!**

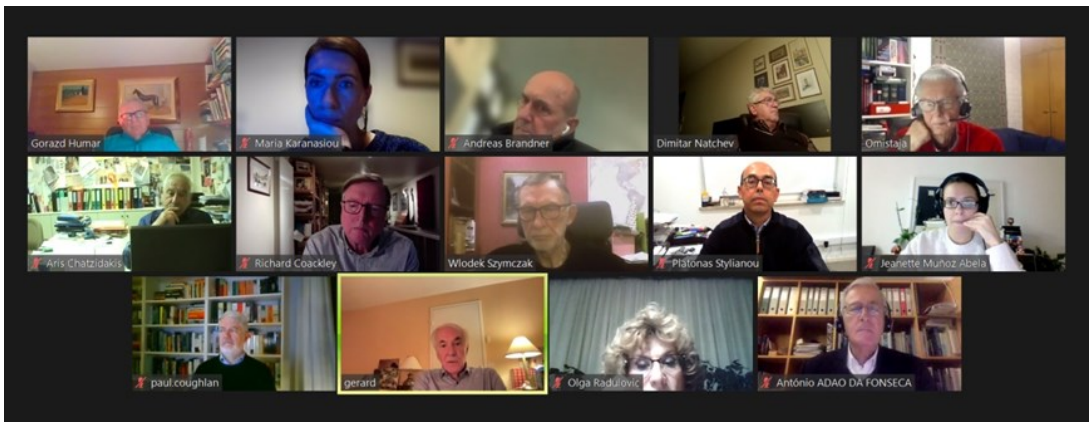
The ECCE Executive Board meets with the ECCE Past Presidents

The ECCE Executive Board held an online meeting with the ECCE Past Presidents on 21st November 2022. The purpose of this initiative is to establish a Past Presidents panel that will act as an advisory board to the ECCE President and Executive Board. When a president's term ends, it does not mean their services are no longer valuable. On the contrary, we believe that our association can benefit from leveraging the key attributes of its past presidents: historical knowledge of the board, association and industry/profession; robust networks and connections; and influence with members, partners and other industry contacts.

The first meeting of the ECCE Past Presidents panel aimed particularly in understanding what the experiences and challenges were for the ECCE Past Presidents as leaders of the organization. In this respect, a set of questions was prepared and disseminated to the Past Presidents in advance of the meeting aspiring to stimulate discussion around important issues that would help the current Executive Board to understand ECCE's past and use the valuable input of the Past Presidents in the ECCE Strategic Plan process.

The questions that were considered are the following:

- In which direction did you wish to guide ECCE?
- Ideas that were fulfilled/not fulfilled
- Past Strategic Plans and how did they work out
- Positive and negative experiences in your term
- Inclusion of members; how was this done, what role did the members have, what objectives did they need to fulfil?
- ECCE Articles of Association and bylaws updates in the past



Participants in this meeting where the following:

- Andreas Brandner (Austria) – ECCE President
- Platonas Stylianou (Cyprus) – ECCE Vice President/ President Elect
- Aris Chatzidakis (Greece) – ECCE Immediate Past President (President 2018 – 2021)
- Jeannette Muñoz Abela (Malta) – ECCE ExBo Member
- Paul Coughlan (U.K.) – ECCE ExBo Member
- Olga Radulovic (Montenegro) – ECCE ExBo Member
- Dimitar Natchev (Bulgaria) – ECCE ExBo Member
- Maria Karanasiou (Greece) – ECCE General Secretary
- Gerard Baron (France) – ECCE President 1994 – 1999
- António Adão da Fonseca (Portugal) – ECCE President 1999 – 2002
- Yrjö Matikainen (Finland) – ECCE President 2002 – 2005
- Richard Coackley (U.K.) – ECCE President 2005 – 2008
- Gorazd Humar (Slovenia) – ECCE President 2010 – 2012
- Włodzimierz Szymczak (Poland) – ECCE President 2014 – 2016 and ECCE Acting President 2016 – 2018

Apologies were sent by Fernando Branco, ECCE Past President 2012 – 2014 who could not attend the meeting due to prior commitments.

The meeting was very successful and the valuable contributions from the ECCE Past Presidents were food for thought for the ECCE Executive Board members. It was agreed that this type of meetings will be carried out in a regular basis because the ECCE Past Presidents panel consists of prominent engineers with vast experience not only in engineering but also in leadership and a profound understanding and knowledge of ECCE who have an important and constructive role to play in the future of the association.

The ECCE Executive Board meets with the Presidents of the ECCE Member Associations

The ECCE Executive Board held an online meeting with the ECCE Members' Presidents on 30th November 2022. The purpose of this meeting was to boost the cooperation between the ECCE member associations and in particular their leaders, giving the opportunity to each member to express their goals and aspirations for the future of the civil engineering profession and exploring how these goals align with ECCE's goals, values and mission.

The first meeting of the ECCE members' Presidents aimed particularly in exploring the Presidents' ideas on how they see ECCE's future and what kind of engagement and support they expect from their participation in ECCE. Such meetings will be held periodically as a means of bringing ECCE members together, exchanging ideas and views for the civil engineering profession and assessing where we stand and how we can improve and collaborate more effectively.

After a short round of introductions, the Presidents were requested to present their views on the following issues:

- Where you would like ECCE to go and what role do you wish ECCE to have?
- How would you like ECCE to help you?
- How does ECCE fit in your national strategy of the profession?

Participants in this meeting where the following:

Name	Country	Association	Position in the Association
Andreas Brandner	Austria	ECCE / Federal Chamber of Architects and Chartered Engineering Consultants	ECCE President
Platonas Stylianou	Cyprus	ECCE / Cyprus Association of Civil Engineers	ECCE Vice President/ President Elect
Helena Endriksone	Latvia	ECCE / Latvian Association of Civil Engineers	ECCE Vice President/ Treasurer and LatACE Vice President
Paul Coughlan	U.K.	ECCE / Institution of Civil Engineers	ECCE ExBo Member
Jeannette Muñoz Abela	Malta	ECCE / Chamber of Architects and Civil Engineers of Malta	ECCE ExBo Member and KTP Vice President
Dimitar Natchev	Bulgaria	ECCE / Union of Civil Engineers in Bulgaria	ECCE ExBo Member and UCEB President
Olga Radulovic	Montenegro	ECCE / Engineers Chamber of Montenegro	ECCE ExBo Member
Maria Karanasiou	Greece	ECCE	ECCE General Secretary

Name	Country	Association	Position in the Association
Alois Materna	Czech Republic	Chamber of Certified Engineers and Technicians	1st Vice President
Iuri Svanidze	Georgia	Georgian Society of Civil Engineers	President
Gábor Szőllőssy	Hungary	Hungarian Chamber of Engineers	Vice President
Raimonds Eizensmits	Latvia	Latvian Association of Civil Engineers	President
Žymantas Ružionis	Lithuania	Lithuanian Association of Civil Engineers	President
Andre Pizzuto	Malta	Chamber of Architects and Civil Engineers of Malta	President
Nikola Lukovic	Montenegro	Engineers Chamber of Montenegro	President
Kristinka Radevski	North Macedonia	Chamber of certified architects and certified engineers of the Republic of North Macedonia	President
Meri Cvetkovska	North Macedonia	Chamber of certified architects and certified engineers of the Republic of North Macedonia	President of the Civil Engineering Department
Andrzej Pawłowski	Poland	Polish Chamber of Civil Engineers	Chairman of the Foreign Cooperation Committee
Wlodzimerz Szymczak	Poland	Polish Chamber of Civil Engineers	ECCE Past President and Poland's National Delegate to ECCE
Humberto Varum	Portugal	Order of Engineers of Portugal	President of the Civil Engineering College of Ordem dos Engenheiros
Lubos Moravcik	Slovakia	Slovak Chamber of Civil Engineers	Vice President
Črtomir Remec	Slovenia	Slovenian Chamber of Engineers	President
Selçuk Uluata	Turkey	Turkish Chamber of Civil Engineers	President's appointee
Petro Shyliuk / Nikolay Kirjukhin	Ukraine	Ukrainian Council of Civil Engineers	President/ Vice President
Keith Howells	United Kingdom	Institution of Civil Engineers	President

Apologies:

Name	Country	Association	Position in the Association
Aris Chatzidakis	Greece	ECCE / Association of Civil Engineers of Greece	ECCE Immediate Past President
Klaus Thurriedl	Austria	Federal Chamber of Architects and Chartered Engineering Consultants	Vice President
Nina Dražin Lovrec	Croatia	Croatian Chamber of Civil Engineers	President
Evangelitsa Tsoulofta	Cyprus	Cyprus Association of Civil Engineers	President
Andres Piirsalu	Estonia	Estonian Association of Civil Engineers	President
Vassilis Bardakis	Greece	Association of Civil Engineers of Greece	President
Marica Mijajlović	Serbia	Serbian Chamber of Engineers	President

Both the Presidents of the ECCE Members Associations as well as the members of the Executive Board appreciated the opportunity to express their views and ideas and reflect on the most important issues that concern their associations and countries. This initiative will be continued in the future in order to enhance the cooperation among the members of ECCE and to enable the leaders of ECCE and its member organizations to build the future of civil engineering together.

Review of the ECCE online event "Engineering the New European Bauhaus: reframing the Bauhaus from theory to practice"

On 28th September 2022, ECCE organized its first online event on the topic "Engineering the New European Bauhaus: reframing the Bauhaus from theory to practice" in an effort to shed some light on the NEB framework from the point of view of civil engineers, bringing the focus from theory to practice.

ECCE President Andreas Brandner in his opening speech mentioned that the NEB initiative is self-defined as a creative and interdisciplinary initiative to connect the "European Green Deal" with our daily lives and experiences.

The New European Bauhaus initiative calls on all of us to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls.

Beautiful are the places, practices, and experiences that are:

- Enriching, inspired by art and culture, responding to needs beyond functionality.
- Sustainable, in harmony with nature, the environment, and our planet.
- Inclusive, encouraging a dialogue across cultures, disciplines, genders and ages.

He remarked that as civil engineers we need to be a vital part in this reframing process, as the European Green Deal will transform the EU into a modern, resource-efficient and competitive economy, ensuring that there will be no net emissions of greenhouse gases by 2050, that the economic growth will be decoupled from resource use and that no person and no place will be left behind. He also highlighted that the European Green Deal is our lifeline out of the COVID-19 pandemic. One third of the 1.8 trillion euro investments from the NextGenerationEU Recovery Plan, and the EU's seven-year budget will finance the European Green Deal. The tasks involved are manifold and can be solved primarily by us engineers.

Speakers at the ECCE online event were the following:

Ms Savina Carluccio

Executive Director, International Coalition for Sustainable Infrastructure (ICSI)

Dr Nikos Lagaros

Dean at the School of Civil Engineering and Professor of Structural Optimization at the Institute of Structural Analysis and Antiseismic Research of the National Technical University of Athens (NTUA

Ms Paula Kirk

Arup Global Leader, Climate and Sustainability Portfolio

The event was moderated by:

Dr Jeanette Muñoz Abela

Architect and Civil Engineer,
ECCE Executive Board Member

Ms Savina Carluccio delivered a presentation on **"Rethinking the role of engineers"**. She talked about how can engineers help in addressing the systemic challenges by delivering holistic solutions and pushing the boundaries of problem solving, collaboration and the engineering profession itself. She also touched upon the engineers and sustainable development, defining the competence areas where engineers can contribute the most highlighting the importance of raising the voice of engineers and placing them at the forefront of the race to resilience.

Dr Nikos Lagaros delivered a presentation on **"Sustainable structural design in AEC industry. The challenge of Structural Optimization"**. He talked about how the idea of applied structural optimization as a holistic approach on modern complex structural systems design is taking the step from a manmade reference design to an optimized tailored solution with respect to regulations and user defined design checks. He referred to the history of optimization dating back from the 15th Century linking it with today's state-of-the-art and how it can be applied in the AECI. He explained why do we need structural optimization and highlighted the environmental and economic impact and the value it brings into engineering. He also presented two case studies comparing the initial design construction data to the optimized design ones showcasing the percentile reductions in cost, concrete and reinforcement volume, GHG emissions and energy consumption.

Ms Paula Kirk delivered a presentation on **"Engineering a more sustainable and inclusive future"**. She focused on the three main themes of the New European Bauhaus; enriching, sustainable and inclusive. She presented projects that have been designed and delivered by Arup that demonstrate the values of the NEB.

Following the presentations, a panel discussion took place. The panel consisted of the three speakers as well as ECCE President Andreas Brandner, ECCE Immediate Past President Aris Chatzidakis, ECCE Vice President/ President Elect Platonas Stylianou and ECCE ExBo Member Paul Coughlan.

ECCE Vice President/ President Elect Platonas Stylianou stressed the importance of innovative solutions being embraced by civil engineers in their work and projects but without forgetting the importance of the safety factor. He remarked that the ECCE Position Paper on the "3S approach: Safe – Sound – Sustainable" highlights the importance of integrating structural/seismic upgrade of existing buildings, with energy efficiency improvements. He said that in order to have a truly holistic approach in the New European Bauhaus initiative we should not fail to remember the existing building stock and infrastructure where the NEB values should be applied as well.

ECCE Immediate Past President Aris Chatzidakis stressed that one of the main roles of civil engineers in the NEB should be to introduce aspects such as structural safety as part of sustainability and resilience in order to balance out the artistic and architectural aspects which seem to be prevailing at the moment. He said that of course beauty and aesthetics are very important but safety must come first. The NEB should also focus on reusing and maintaining the existing assets (building stock and infrastructure) in innovative ways. Civil Engineers need to be more present in the NEB contributing with their knowledge and technical expertise in best practices for achieving safe, sustainable, beautiful and inclusive solutions. He also stressed the important role that Public Authorities should play in this effort.

ECCE ExBo Member Paul Coughlan commented that despite the frustration with institutional inertia progress is being made and things are changing with Europe having a policy framework which is getting stronger and public and private sectors embracing the net-zero and circular economy principles. In his opinion what is missing is the technical know-how to deliver the NEB ambitions and this is where engineers need to come in. He said that the NEB is about the built environment and the interaction of society with it and therefore engineers need to be more seen in the NEB conversation. He stressed that it is of outmost importance to get engineers as a profession mobilized across all of the different points of influence they have if we want to reach our goals.

ECCE President Andreas Brandner thanked the three speakers for their insightful presentations, the members of the panel for contributing to the conversation with their valuable points, all the attendees for their questions and interest shown in the topic as well as the moderator for managing and leading the discussion. He remarked that all the interventions and points that were made have a common denominator which is clarity and interdisciplinary collaboration. In his point of view education and Lifelong Learning are key for civil engineers, providing the necessary tools that the civil engineer of the future must have to be competent to deal with the increasing complexity of the projects, to be able to communicate and cooperate effectively with all stakeholders of a project and to deliver the right solutions.

He highlighted that civil engineers are problem solvers and it is our duty to contribute to the New European Bauhaus and influence the decision making around it bringing in the conversation the topics of structural safety, sustainable holistic approach, structural optimization and investment in upgrade and maintenance of the existing building stock and infrastructure.

Watch the online event on ECCE's YouTube Channel.

ECCE participated in a meeting on the European standards for defining the minimum training requirements for civil engineers with the European Commission

On 6th September 2022, ECCE President Mr. Andreas Brandner together with ECEC President Mr. Klaus Thürriedl and a representative of the German Federal Chamber of Engineers Mr. Böhme participated in a meeting with a member of the EU Commission Mr. Petrov.

The purpose of the meeting was to discuss the need for defining the minimum training requirements for civil engineers and especially in which cases a standard might bring benefits for the consumers and engineers

FEANI was consulted on the topic as well and their view was that there is no special need for defining a European standard on the minimum training requirements for civil engineers.

It was agreed that ECCE, ECEC and the German Federal Chamber of Engineers will support the report on the need of a European Standard, as they are convinced that this might also be a benefit for us engineers to have uniform definitions of competences and requirements on lifelong learning, etc.

ECEC and ECCE will cooperate in supporting the European Commission with the necessary input from the civil engineering perspective on this issue.

Review of the Construction 2050 Alliance event "Sustainable finance, the impact of the European taxonomy on the construction sector"

The Construction 2050 Alliance is a partnership established in 2020 made of more than 50 European organizations representing the actors of the built environment working together to advance the needs and priorities of the wider construction and built-environment sector at the European level.

The Construction 2050 Alliance has been established to coordinate common political messages of the construction value chain and raise the political importance of the sector at the European level.

The C2050 Alliance organized a hybrid event on "Sustainable finance, the impact of the European taxonomy on the construction sector". The event was held on 18th October 2022, in a hybrid mode. ECCE as member of the C2050 Alliance participated in the event and was represented by the ECCE **Vice President/ President Elect Mr. Platonas Stylianou**.

The key messages shared in the event are:

1. The Taxonomy underlines again the construction sector's huge potential for achieving the EU Green Deal goals.
2. The Taxonomy may offer a European approach of "sustainable construction" based on existing EU Regulations and European sustainability assessment standards, but some criteria should be improved, and reporting methodologies clarified.
3. The Taxonomy can set a new benchmark for competitiveness of the construction sector.
4. The Taxonomy must create the conditions of mobilising capital to support the transition to sustainable construction.
5. Sustainability reporting obligations under the Taxonomy must be simple and proportionate.
6. Non-alignment with the Taxonomy must not cut off companies from financing and funding.

Further information on the event and the results of the discussion can be consulted at the link here.

ECCE participates in the Korean Society of Civil Engineers (KSCE) 2022 Convention

KSCE 2022 Convention was held from 19th to 21st October 2022, in Busan, Korea in a hybrid mode. ECCE was invited to partake in the International programme of the KSCE 2022 Convention as ECCE and KSCE have signed an Agreement of Cooperation.

ECCE President Andreas Brandner attended virtually part of the International Programme of the Convention and delivered a greeting speech on behalf of ECCE.

The theme for this year's International Roundtable Meeting was " 'Carbon Neutral' in Civil Engineering". We are facing and observing terrible natural disasters caused by the climate crisis, and the only solution to dampen it is believed to reduce carbon emissions. Each country in the world has proposed various plans for carbon neutrality of its own, and thus it's the right time for civil engineers to discuss and share plans and knowledge on how we could contribute to carbon neutrality in a more specific manner. This session focused on various efforts and approaches taken by each participating country toward carbon neutrality.

The Civil Engineering Leaders Network (CELeN) has been established by the KSCE in order to broaden and promote the international cooperation and thus, to contribute to the development of global construction community by establishing a network of civil engineers. The CELeN plays a role as an initiative to contribute to the development of international community by providing young civil engineers with the opportunities to globally learn, experience, and communicate. This year's CELeN Meeting theme was "What can be done to release and the sequestration of CO2 in the civil engineering industry?"

ECCE participates in the Engineering Association of Mediterranean Countries (EAMC) Board Meeting

On 27th July 2022, a meeting of EAMC took place in Rome hosted by the Consiglio Nazionale degli Ingegneri, which was held as a hybrid meeting. ECCE is member of the EAMCE and its permanent representative in the EAMC Executive Board is ECCE Past President Aris Chatzidakis.

ECCE President Andreas Brandner received a personal invitation by EAMC to attend the meeting in Rome.

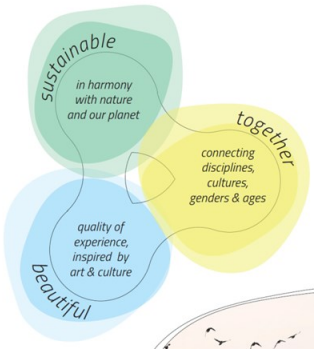
Present were EAMC President Adil Al Hadithi, EAMC Secretary General Nicola Monda, ECCE Past President Aris Chatzidakis (online), ECCE President Andreas Brandner, CNI Board Member Roberto Orvieto, Ordem dos Engenheiros President Fernando de Almeida Santos.

Topics of discussion were the reorientation and reorganization of EAMC and the further course of action were determined. An EAMC General Assembly in person or in hybrid mode is planned for January 2023.

ECCE President had the opportunity to meet and discuss with the CNI President Armando Zambrano about the joint future of ECCE and CNI. Zambrano donated to ECCE a three Volume Encyclopedia on Italian Engineering.

From left to righ: CNI Council Member Roberto Orvieto, OEP President Fernando de Almeida Santos, CNI President Armando Zambrano, ECCE President Andreas Brandner

New European Bauhaus news



New European Bauhaus: kick-starting the transformation

The New European Bauhaus initiative connects the European Green Deal to our daily lives and living spaces. It calls on all Europeans to imagine and build together a sustainable and inclusive future that is beautiful for our eyes, minds, and souls.

The New European Bauhaus is a creative and transdisciplinary movement in the making!

- It is a bridge between the world of science and technology, art and culture.
- It is about leveraging our green and digital challenges to transform our lives for the better.
- It is an invitation to address complex societal problems together through co-creation. By creating bridges between different backgrounds, cutting across disciplines and building on participation at all levels, the New European Bauhaus inspires a movement to facilitate and steer the transformation of our societies along three inseparable values:
  - ◊**sustainability**, from climate goals, to circularity, zero pollution, and biodiversity
  - ◊**aesthetics**, quality of experience and style, beyond functionality
  - ◊**inclusion**, from valuing diversity, to securing accessibility and affordability

The New European Bauhaus brings citizens, experts, businesses, and institutions together to reimagine sustainable living in Europe and beyond. In addition to creating a platform for experimentation and connection, the initiative supports positive change also by providing access to EU funding for beautiful, sustainable, and inclusive projects.

New European Bauhaus applications open for the 2023 Prizes

On 6th December the Commission opened applications for the New European Bauhaus Prizes 2023. Following the successful last two editions that received over 3,000 entries from all EU Member States, **the 2023 competition will reward 15 exemplary initiatives** linking sustainability, aesthetics, and inclusiveness - the three core values of the New European Bauhaus. In the context of the European Year of Skills, this year's edition will have a strand focusing on education and learning. For the first time, applications for projects and concepts in the Western Balkans will be also welcome. As last year, there will be specific prizes for people below 30 years of age. The **call is open until 31 January 2023 at 19:00 CET.**

The 2023 Prizes will reward existing projects as well as concepts developed by young talents under four categories:

- Reconnecting with nature
- Regaining a sense of belonging
- Prioritising the places and people that need it the most
- The need for long-term, life-cycle thinking in the industrial ecosystem

In each category, applicants can choose between three parallel competition strands:

- Strand A: **"New European Bauhaus Champions"**, devoted to existing and completed projects with clear and positive results.

- Strand B: **"New European Bauhaus Rising Stars"** dedicated to concepts submitted by young talents aged 30 or less. The concepts can be at different stages of development, from ideas with a clear plan to the prototype level.
- Strand C: **"New European Bauhaus Education Champions"** devoted to initiatives focusing on education and learning. Both completed projects, as well as initiatives with a minimum level of maturity, are eligible.

The 2023 Prizes will be awarded to **15 winners who will receive prize money of up to €30,000**, as well as **a communications package** to help them further develop and promote their projects and concepts.

How to apply
Applicants of all nationalities and backgrounds are welcome if their concepts and projects are implemented in the EU or the Western Balkans. They should submit their applications through the official **NEB prizes website**.

All the details regarding the application process are included in the applicants' guide, available in all EU and Western Balkans languages.

Call for external experts
Experts in the New European Bauhaus fields are sought for the selection of the best initiatives that combine sustainability, aesthetics and inclusivity - the three core values of the New European Bauhaus - for the evaluation of the awards.

The call is open to individuals with educational and/or professional backgrounds in at least one of the above areas, preferably in at least two. The interested experts can submit their **expression of interest** **until 31st January 2023**.

For more information please consult the **NEB website**.

European Urban Initiative: first NEB call for proposals

The European Urban Initiative (EUI) has launched its first Innovative Actions call - with an indicative budget of EUR 50 million - targeting innovative projects focusing on the New European Bauhaus.

The call will fund projects to deliver tangible, real-life examples of New European Bauhaus interventions that fully integrate the three NEB core values of sustainability, inclusiveness, and aesthetics.

The call is open until 19 January 2023 at 14:00 CET.

Info and applications

NEB Lab project on innovative funding

Can we imagine new ways of living that respect our environment and find innovative ways to finance them? How can we concretely support beautiful, sustainable and inclusive projects across Europe looking beyond traditional EU instruments?

These are some of the questions that are sought to be answered in the context of the NEB Lab project on innovative funding.

Following its first phase, which consisted of two pilots (philanthropy and crowdfunding), the **NEB Lab project on innovative funding entered a new phase**. The project will explore how to fund small, grassroots projects with low, seed-level financing to make a tangible impact on the New European Bauhaus community. The goal is to look into creating a '**one-stop-shop**' for small projects across Europe and offer the best funding solutions for each project via crowdfunding, philanthropy, or EU public funding.

More information on innovative funding can be consulted **here**.

EU funding programmes for reaching the NEB goals

The EU maintains various funding programs from which you may be able to apply for funds - depending on the nature of your business or project.

For your information, a collected overview of EU funding opportunities to support the achievement of the New European Bauhaus goals for 2023 and 2024 can be found **here**.

The combination of several EU funding instruments reflects the transdisciplinary nature of the New European Bau-

haus Initiative. Diverse calls for EU funding opportunities are presented on a regular basis depending on the area of activity and the type of impact sought.

Mobilising EU Programmes for the transformation of places on the ground (2023-2024)

Fully dedicated or contributing to the New European Bauhaus calls for proposals aiming at supporting the concrete transformation of the built environment and associated lifestyles at local level.

New European Bauhaus dedicated calls:

- European **Urban Initiative**
- **Affordable Housing** District Demonstrator
- **Urban greening** and re-naturing for urban regeneration, resilience and **climate neutrality**
- New European Bauhaus – innovative solutions for greener and fairer ways of life through **arts** and **culture**, **architecture** and **design** for all
- Demonstrating the potential of nature-based solutions and the New European Bauhaus to contribute to sustainable, inclusive and resilient **living spaces** and **communities**

Contributing calls:

- **Intelligent data** acquisition and analysis of materials and products in existing built works
- **PV integration** in buildings and in infrastructure
- Demonstration of **marine** and coastal infrastructures as hybrid blue-grey Nature-based Solutions
- **Eco-friendly consumer products** – low-toxicity/zero pollution construction bio-based materials
- Improving rural future through better **territorial governance** and **rural-urban synergies**
- Evidence-based interventions for promotion of **mental** and **physical health** in changing working environments (post-pandemic workplaces)
- **EIC Accelerator Challenge**: New European Bauhaus and Architecture, Engineering and Construction digitalisation for decarbonisation
- Fast-tracking and promoting built **environment construction** and **renovation innovation** with local value chains (Built4People Partnership)
- Supporting the creation of an **accessible** and **inclusive built environment** (Built4People Partnership)
- **EIC Pathfinder Challenge**: Architecture, Engineering and Construction digitalisation for a novel triad of design, fabrication, and materials
- Enhanced assessment, intervention and repair of **civil engineering infrastructure**
- Digital solutions to foster **participative design**, planning and management of buildings, neighbourhoods and urban districts (Built4People Partnership).

Detailed information can be consulted **here**.

Mobilising EU programmes for the transformation of the enabling environment for innovation (2023-2024)

Fully dedicated or contributing to the New European Bauhaus calls for proposals aiming at supporting innovation aimed at integrating sustainability, inclusion, and aesthetics in new solutions and products.

New European Bauhaus dedicated calls:

Climate-smart use of **wood** in the construction sector to support the New European Bauhaus
Localised and Urban **Manufacturing**, supporting **creativity** and the New European Bauhaus.

Contributing calls:

- Alliances for **innovation**
- Centres of **Vocational Excellence** (CoVE)
- Art-driven **digital innovation**: Towards human compatible and ecologically conscious technology
- Novel, sustainable and circular **bio-based textiles**
- Symbiosis in the **bio-based industrial ecosystems**
- **Innovation Lab**
- Circular design of **bio-based processes** and **products.**

Detailed information can be consulted **here**.

Mobilising EU programmes for the diffusion of new meanings (2023-2024)

Fully dedicated or contributing to the New European Bauhaus calls for proposals aiming at facilitating a process of questioning our perspectives and mind-set around the values of aesthetics, sustainability and inclusion.

New European Bauhaus dedicated calls:

- European **Youth Together**
- Unlock the potential of the New European Bauhaus in **urban food system** transformation

Contributing calls:

- European **cooperation projects**
- Assessing **urban farming** impacts
- **DiscoverEU Route** 2023
- European **Solidarity Corps** 2023
- **Arts** and **cultural awareness** and expression in **education** and **training**.

Detailed information can be consulted **here**.

27th Conference of the Parties of the UNFCCC (COP27)

What is COP27?

A defining moment in the fight against climate change.

Science has established beyond doubt that the window for action is closing rapidly. In November 2022, Egypt hosted the 27th Conference of the Parties of the UNFCCC (COP27) in Sharm El-Sheikh, with a view to building on previous successes and paving the way for future ambition.

A golden opportunity for all stakeholders to rise to the occasion and tackle effectively the global challenge of climate change facilitated by Egypt on the African continent.

It is the 2022 United Nations Climate Change Conference

Egypt assumes the incoming Presidency of COP27 with a clear recognition of the gravity of the global climate challenge and appreciation of the value of multilateral, collective and concerted action as the only means to address this truly global threat.

From Stockholm, Rio, Bali, Kyoto, Durban, Paris, Katowice, Glasgow to Sharm El-Sheikh

Global political will, supported by science heading to a paradigm shift through just and ambitious transformation.

The Intergovernmental Panel on Climate Change (IPCC) has provided the credible science, successive COP decisions laid out the collective governmental actions, The Convention and its agreements outlined the principles, legal obligations and guidelines for collective action.

Recent IPCC reports have highlighted the gravity of the climate crisis and the need for immediate and sustained political will, impactful action and effective cooperation. Building on Glasgow's momentum, COP27 sought to further enhance the scope of deliverables across the climate action agenda.

There is a need for progress on the ground on all aspects of our work; mitigation, adaptation, finance, loss and damage.

We are aware of the challenges and the opportunities related to climate action, and the potentials and needs of all including those who are in vulnerable situations and the vulnerable communities and we stand ready to engage with all parties to accelerate climate action.

Key takeaways from the COP27 climate summit

The decisions taken in the UN Climate Change Conference COP27 in Sharm el-Sheikh require all countries to make an extra effort to address the climate crisis – starting now. Or as UN Secretary-General António Guterres put it, “COP27 concludes with much homework and little time.”

The following five key takeaways will shape the priorities for climate action in 2023 and beyond to ensure the world can keep the worst consequences of climate change at bay.

Establishing a dedicated fund for loss and damage

COP27 closed with a breakthrough agreement to provide loss and damage funding for vulnerable countries hit hard by floods, droughts and other climate disasters.

This was an historic decision because for the first time, countries recognized the need for finance to respond to loss and damage associated with the catastrophic effects of climate change, and agreed to the establishing of a fund and the necessary funding arrangements.

Maintaining a clear intention to keep 1.5°C within reach

At COP27, countries reaffirmed their commitment to limit global temperature rise to 1.5°C above pre-industrial levels.

That means the global economy must “mitigate” climate change – in other words, we must reduce or prevent the emission of greenhouse gases to get us to where science says we need to be by 2030. In line with that, a mitiga-

tion work programme was established in Sharm el-Sheikh, aimed at urgently scaling up mitigation ambition and implementation. The work programme will start immediately and continue until 2026 when there will be a review to consider its extension.

Holding businesses and institutions to account

This new phase of implementation also means a new focus on accountability when it comes to the commitments made by sectors, businesses and institutions.

The transparency of commitments from businesses and institutions will be a priority of UN Climate Change in 2023. The UN Secretary-General asked UN Climate Change to come up with a plan early next year on how to ensure transparency and accountability with non-state actors.

Mobilizing more financial support for developing countries

Finance is at the heart of all that the world is doing to combat climate change. Mitigation, adaptation, loss and damage, climate technology – all of it requires sufficient funds to function properly and to yield the desired results.

On this crucial topic, COP27 created a pathway to align the broader finance flows towards low emissions and climate resilient development.

The COP27 cover decision, known as the Sharm el-Sheikh Implementation Plan, highlights that a global transformation to a low-carbon economy is expected to require investments of at least USD 4-6 trillion a year. Delivering such funding will require a swift and comprehensive transformation of the financial system and its structures and processes, engaging governments, central banks, commercial banks, institutional investors and other financial actors.

Making the pivot toward implementation

COP27 was expected to be a climate summit of “implementation” where climate pledges are turned into concrete action.

On the opening day of the conference, UN Climate Change Executive Secretary Simon Stiell called for aligning “every corner of human activity” with the 1.5°C goal, saying “Paris gave us the agreement and Katowice and Glasgow gave us the plan, Sharm el-Sheikh shifts us to implementation.”

The package of decisions adopted at COP27 have a strong focus on implementation – they aim to strengthen action by countries to cut greenhouse gas emissions and adapt to the inevitable impacts of climate change, as well as boost the support of finance, technology and capacity building needed by developing countries.

Notably, nations resolved to make the transition to low-emission and climate-resilient development ambitious, just and equitable. They went one step further at COP27 by deciding to establish a work programme on ‘just transition,’ which is expected to build on and complement the work to urgently scale up mitigation ambition and implementation.

Speaking about the year ahead, Stiell said UN Climate Change will help Parties and future COP Presidencies navigate this path to the new phase of implementation.

“The heart of implementation is: Everybody, everywhere in the world, every single day, doing everything they possibly can to address the climate crisis,” said Stiell.

More information can be consulted at the COP27 website.

Be an ECCE Member (EUCivEng)
ECCE Individual Membership

The European Civil Engineer

The profession of the Civil Engineering is mostly performed where the construction is being made, in Europe or in any part of the world.

Today, within the European Union, construction companies have activities in many countries, so civil engineers have to move to foreign countries and to work all over Europe.

To allow this professional movement EU published a Directive on Professional Mobility, to facilitate the recognition of Civil Engineers across Europe.

Nevertheless the Directive considers under this title, professionals with quite different academic or professional backgrounds, what can lead to unclear situations for society.

The EU Directive on Mobility proposes the creation of a European Database of Civil Engineers, interconnected through national organizations.

ECCE appeared in1985 to promote the quality of Civil Engineering with a professional recognition where academic/professional quality is guaranteed by the national organizations.

ECCE as representative of those organizations, and to promote quality in professional recognition, is opening its membership to individual members, allowing for their image recognition as European Civil Engineers.

ECCE goals:

- To present in Brussels the views of the European civil engineers.
  (ECCE participates in the High Level Tripartite Forum for Construction in EU)
- To establish international contacts with other associations.
  (ASCE, JSCE, KSCE, ECCREDI, Mediterranean countries, etc.)
- To promote the relevant professional information across Europe
  (Publication of e-journal, books, reports, etc.)
- To organize Conferences across Europe about Civil Engineering

May I become an Individual ECCE Member?

Yes, although ECCE is an association of national organizations, individual civil engineers may also be Individual Associate Members,with access to all the information and discussion forums, but they may not vote in ECCE General Assemblies.

Being an ECCE individual member you will have the reference EuCivEng.

And you get also the ECCE membership card!

What do I get as an ECCE Individual Member?

- **If you just want to be an ECCE member**, you will receive:

  The e-journal and all relevant information from EU Commission

- **If you want to come to our meetings**, you will get:

  Participation in 2 International conferences per year;

  Participation in 2 General assemblies per year;

  Participation in Brussels Engineers Day each 3 years;

  To be in contact with civil engineers across Europe (EU and nonEU).

- **But if you want to be eally active,**

  You are welcome to participate in the discussion forums or to propose position papers to be submitted to Brussels.

- The ECCE card identifies you, through your national organization, as a Professional of Civil Engineering in your country and a **EUCivEng** in ECCE.
- It is expected that in the future the card will allow an automatic civil engineering identification across Europe, according to the EU Mobility Directive, when national organizations implement their database of Civil Engineers.

How can I become an ECCE Individual Member?

Please send to ECCE headquarters (**ecce_sps@otenet.gr**):

1. **Registration Form**
2. Document from your ECCE National Organization as a proof that you are member of it
3. **Excel sheet with your information**
4. Photograph
5. **Excel sheet with your name and address**

After receiving the notification of acceptance of your application from the ECCE General Secretary, you will be asked to proceed to the **Payment of the Subscription Fee** according to the **Payment Details** that follow.

What are the Payment Details?

- To be an ECCE individual member there is an **anual fee of 20 euros**.
- If you are **older than 65 you pay only once 30 euros** and you become member with unlimited validity.
- You can pay in packages of 3 years (60 euros) or 5 years (100 euros),
  plus 8 euros, **with each package, for printing and posting the new card.**

Join us now!
Become an ECCE Member (EUCivEng)

News from ECCE Members

Austria

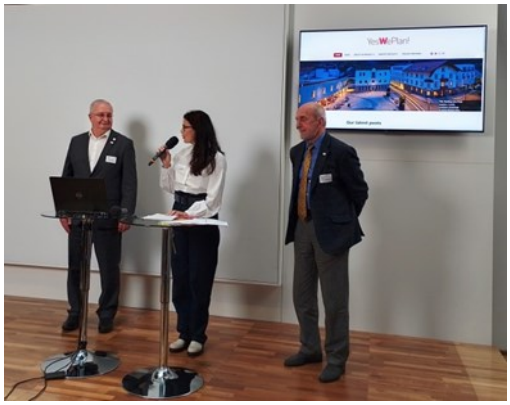
ECCE's participation in the Erasmus+ project YesWePlan!

At the end of 2019, the Austrian Federal Chamber of Architects and Chartered Engineering Consultants launched the **Erasmus+ project YesWePlan!**. The aim of the project was to combat gender inequality in the fields of architecture and civil engineering and identify the contributions of women to European building culture. As a result, the project produced data on women in these professions, its most important release is the Compendium 4 in 1 which summarises all project outcomes.

The project results were presented on 31 March 2022 in Vienna in the 'Haus der EU' and later discussed with the presidents of the European professional organisations: Ruth Schagemann for the Architects Council of Europe, Klaus Thürriedl for the European Council of Engineers Chambers and **President Andreas Brandner of the European Council of Civil Engineers**. Evelyn Regner, Vice President of the European Parliament, hosted the event and stressed the importance of gender equality, especially in technical professions. This event also concluded the project, though its effects are still unfolding.

The four different outcomes are: Recommendations for professional organisations, training institutions and employers; Country Situation Reports on the data from the individual partner countries; a Career Tracker delivering results from hundreds of surveys and interviews with affected women; as well as a collection of Best Practice Examples.

The **Recommendations** produce tools and methods for different institutions which help address inequalities and encourage means to improve the situation for women Architects and Civil Engineers. They address universities and other teaching facilities, professional chambers and organisations and employers.



ECEC President, Klaus Thürriedl, ACE President, Ruth Schagemann and ECCE President, Andreas Brandner

The YesWePlan! Recommendations, which are derived from the outcomes of the interviews in the Career Tracker, the Country Reports, and the Best Practice Examples, prove that there is a lot to be done to achieve gender equality in universities, professional organisations and employment, but there are many levers to improve equal treatment.

These levers are concrete, and in many cases easy to implement. The YesWePlan! team deliberately decided not to focus on purely political demands, as the professional group has little influence on their implementation. In the areas mentioned, the members of the profession are active themselves and are therefore in a position to positively influence the situation.

The tools for preventing unequal treatment are manifold and range from various awareness-raising measures, training measures, transparency measures and mission statements to the implementation of concrete support measures, mechanisms to prevent unequal treatment and also positive support measures.

Recommendations for Professional Organisations therefore include methods to help close the structural gender gap within the professional organisation with targeted training measures, a particular focus on diversity within the organisation and the implementation of quotas and other mechanisms. It is also recommended to actively combat the gender stereotypes that are evident in the field of Architecture and Civil Engineering by promoting the work of female Civil Engineers and developing institutions that actively work against discrimination in the work field. The recommendations for professional organisations correspondingly present processes that help female professionals working in the building industry improve their self-presentation and self-expression within their respective fields through further projects and training possibilities on self-confidence in the workplace. The achievement of gender equality in this sector is also dependent on the promotion of smaller, especially female owned businesses and the creation of projects such as Architectural Design Competitions.

ECCE President Andreas Brandner at the AnotHER VIEWture award ceremony, Copyright: Katharina Schiffl

The **Best Practice Collection** features projects that implement measures to highlight the role of women in building culture and contribute to a more levelled field in Architecture and Civil Engineering between men and women. These included the French ARVHA Femmes Architectes prize, annually awarded to women Architects for their brilliance in their respective field. It was this particular Best Practice Example that also inspired the **AnotHER VIEWture award**, an architectural competition that was held in Austria for the first time in October 2022. The award ceremony was attended by ECEC President Klaus Thürriedl and **President of the ECCE Andreas Brandner** as well as ACE Executive Board Member Daniel Fügenschuh. Therefore, this event brought together representatives from three important European organisations on Engineering and Architecture to talk about the significant topic of the role of women in the building industry. President Andreas Brandner held a speech on the implementation of the YesWePlan! Recommendations and inequalities women experience in the field of Civil Engineering.

AnotHER VIEWture award ceremony, Copyright: Katharina Schiffl

To read more about the YesWePlan! Project and the AnotHER VIEWture award, please visit their respective websites: **YesWePlan!** & **AnotHER VIEWture Award**.

Cyprus

Cyprus Association of Civil Engineers (CYACE)

The Cyprus Association of Civil Engineers (CYACE) was founded in 1992. CYACE's establishment was deemed necessary due to the continuous downgrading and marginalisation of the profession of Civil Engineers in both the private and the public sector. CYACE aims to protect, promote and enhance the profession of Civil Engineers by providing relevant information and educational activities/lectures to its members. Moreover, through interventions such as press releases and announcements, the organization intents to raise awareness to the public.

2022 is a significant year for our Association as we are celebrating 30 years since the establishment of CYACE back in 1992. In order to celebrate the 30 years of CYACE, our Association followed an action plan with various activities and initiatives open to its members which took place throughout the year.

Educational Activities / Lectures

The Cyprus Association of Civil Engineers organizes free educational activities and lectures on topics related to civil engineering. The primary purpose of these activities is to educate both the young and experienced Engineers on innovations, developments and trends in civil engineering and the construction sector.

- **Presentation**: Galvanic anode systems for steel reinforcement corrosion
  Date: 19th September 2022
  Speaker: Dr. Sergios Sergi
  Organizers: CYACE and University of Cyprus (Department of Civil and Environmental Engineering)

- **Workshop**: Inspection and Risk Evaluation of Buildings - Presentation of Visual Inspection of Buildings Forms prepared by the Scientific and technical Chamber of Cyprus (ETEK)
  Date: 28th of September 2022
  Speakers: Dr. Efthimis Lekkas, Aris Chatzidakis, Platonas Stylianou, Andreas Theodotou, Paris Skouloukos, Dr. Nikolas Kyriakides, Nikos Kalathas, Thomas Mitas, Xenios Papastauroy, Constantinos Constantinou
  Organizers: CYACE and ETEK
  Under the auspices of the Ministry of the Interior



- **Seminar**: Underground constructions with waterproof concrete
  Date: 12th of October 2022
  Speakers: Vivian Angelopoulou, Liborio Marchi
  Organizers: Phanos N. Epiphaniou with the support of CYACE


- **Presentation**: Concrete Recycling – From research to practical application
  Date: 15th of November 2022
  Speakers: Michalis F.Petrou, Pericles Savva
  Organizers: CYACE and University of Cyprus (Department of Civil and Environmental Engineering)


Educational and Research Centre of CYACE - Seminars

The Educational and Research Centre of CYACE, organized with great success and participation the following seminars, approved by the Human Resource Development Authority of Cyprus.

Shell and Thermal Bridges of Nearly Zero Energy Buildings (Nzeb)

Title: Shell and Thermal Bridges of Nearly Zero Energy Buildings (nZEB)
Dates: 6th of July 2022
Location: Cleopatra Hotel, Nicosia
Trainer: Dr. Paris Fokaidis
Organizer: Educational and Research Centre of CYACE

The aim of the Program was to inform and train the Researchers, regarding the way of planning and calculating the individual elements, which make up a 'Nearly Zero Energy Building (Nzeb)', that they can evaluate each factor that affects the energy efficiency of the building, to provide the optimal solution.


Study and design of metal constructions

Title: Study and Design of Metal Constructions
Dates: 1st and 2nd of December 2022
Location: Cleopatra Hotel, Nicosia
Trainers: Andreas Theodotou & Dr.Charis Gantes
Organizer: Educational and Research Centre of CYACE

The rapid development of metal constructions in recent years makes it necessary to train the designers in the new trends in the field of metal buildings as well as to guide them in the correct application of the regulatory provisions. In this way, the State achieves the goal of limiting damage while at the same time it protects the lives of its citizens, especially after an earthquake event.



Events & representation of CYACE in Cyprus and abroad

30th General Assembly of Cyprus Association of Civil Engineers

On Saturday the 10th of December 2022, was held with great success and participation the 30th General Assembly of the Cyprus Association of Civil Engineers, in Lemon Park in Nicosia. The General Assembly was under the auspices of the Minister of the Interior, Mr. Nikos Nouris, who gave a speech and opened the Assembly.

The keynote speaker was the Minister of Climate Crisis and Civil Protection of the Hellenic Republic, Mr. Christos Stylianidis. Mr. Stylianides is the "architect" of rescEU and through his own initiatives the European protection policy has been upgraded and improved and a new culture has been created aiming to prevent the consequences and impacts of natural disasters. His keynote speech on "European Civil Protection Mechanism - rescEU and its role in the resilience of the built environment" was particularly important in informing the Members of the Association on current issues.

During the Assembly, the 30th anniversary of the Association's foundation was celebrated. The 30-year history of CYACE and its action was presented through a poster exhibition and a special video.



Prior to the General Assembly of CYACE, the Regional Assemblies of the District Boards took place.

Regional Assembly of Paphos District Board, 5/12/2022

Regional Assembly of Larnaka - Ammochostos District Board, 6/12/2022

Regional Assembly of Nicosia - Keryneia District Board, 7/12/2022

Regional Assembly of Limassol District Board, 7/12/2022

Welcoming event of the students in the department of Civil and Environmental Engineering, University of Cyprus

The welcoming event for the upcoming students in the Department of Civil and Environmental Engineering of the University of Cyprus took place on Thursday the 22nd of September 2022 at the University of Cyprus. The president of CYACE Mrs. Evangelitsa Tsoulofta was invited to welcome the students and gave a motivation speech which was inspired by her own journey as a Civil Engineer.

Photography competition entitled "Fortification Projects in Cyprus through the Centuries"

As part of the celebration of the 30 years of history of CYACE, the Nicosia – Kyrenia District Council of CYACE organized a Photography Competition entitled: "Fortification Projects in Cyprus through the centuries."

The competition was held with the support of the Photographic Society of Cyprus, the Cyprus Scientific and Technical Chamber (ETEK) and the Federation of The Building Contractors Associations of Cyprus (O.S.E.O.K.).
The aim of the competition was to promote Cyprus' cultural heritage and the rich history of the fortifications in Cyprus through the centuries, highlighting the important role these projects had in the protection of the island. The competition was open to the public and everyone had the opportunity to participate.

Below you can find the three winners of the competition whose photos were exhibited during the Regional Assembly of the Nicosia – Kyrenia District Board of CYACE as well as during the 30th General Assembly of CYACE, together with 10 more photos which were awarded. The awarded photos as well as other selected ones photos decorated the Calendar of 2023 published by the Nicosia – Kyrenia District Board of CYACE.

1st prize: The heritage by Elias Lambrou

2nd prize: Larnaca's castle by Katia Ioannou

3rd prize: Paphos gate by Aimilios Chatziprokopi

Extended Meeting of Cyprus Association of Civil Engineers

The extended meeting of the Executive Board of CYACE was successfully held on Saturday the 8th of October 2022 at the Cultural Center, in "Giorgos Seferis" Hall in Platres. The extended meeting was attended by Members of the Executive Board, of the District Boards, former Presidents, Civil Engineers – Members of the General Council and Disciplinary Council of ETEK, Members of the previous Executive Board and Civil Engineers who voluntarily offer services to the Association and support its activities.

In the first part of the extended meeting the President of CYACE, Mrs. Evagelitsa Tsoulofta presented the various activities, events and actions of our Association during the period March to September 2022. Moreover, the participation and action of CYCACE in ECCE, FIDIC and CyJCCT was presented by CYCACE's representatives as follows:

- the European Council of Civil Engineers (ECCE) by the Vice President/ President Elect of ECCE and ex President of CYACE, Mr. Platonas Stylianou
- the International Federation of Consulting Engineers (FIDIC) by the General Secretary of CYACE and National Representative in FIDIC, Mr. Varnavas Lambrou and
- the Cyprus Joint Construction Contracts (CyJCCT) by the representative of CYACE in CyJCCT and the Coordinator of CyJCCT, Mr. Costas Allayiotis

The guest Speaker at the meeting was Mr. Yiannis Tsouloftas, General Director of the Sewerage Board of Limassol – Amathus (HALL) & Project Manager of the Temporary Coordinating Council of Limassol, who presented the topic "Provincial Organizations Self-Governed" related to the upcoming local government reform.

In the second part of the meeting an update on the actions of ETEK was presented by the 1st Vice President of ETEK and ex-President of CYACE, Mr. Andreas Theodotou. The meeting was completed with a discussion on current issues of concern to the Civil Engineering sector.


5th Hellenic Conference on Earthquake Engineering and Technical Seismology

The 5th Hellenic Conference on Earthquake Engineering and Technical Seismology was held with success and great participation on the 20th to 22nd of October 2022, at the Royal Olympic Hotel, Athens in Greece.
The Cyprus Association of Civil Engineers (CYACE) is an Institutional Supporter of the Conference.

The Conference was a continuation of the series of relevant scientific Conferences. The aim of the Conference was to bring together the scientific and professional community of Greek engineers and seismologists and to present the progress made in the latter twenty years in seismic assessment and mitigation danger.

Our Association was represented by Members of the Executive Board. The participants had the opportunity to gain important knowledge on the field of earthquake engineering and technical seismology, while at the same time they had the opportunity to meet and discuss with academics and colleagues from Greece as well as with the President and Members of the Association of Civil Engineers of Greece.


Global Infrastructure Conference FIDIC

As part of the International Conference «Global Infrastructure Conference» of FIDIC (11th - 13th of September 2022) in Geneva, Austria, meetings and events between the Presidents, Directors and Secretaries of the countries-members of FIDIC took place at the same location on the 10th to 11th of September 2022. Our Association was represented by its General Treasurer, Varnavas Lambrou.

At the "FIDIC Official International Contract Users' Conference and Awards" (November 29th – 30th 2022) in London, our Association was represented by the General Treasurer of the Association, Varnavas Lambrou and the Coordinator of the FIDIC Contracts Working Group, Platonas Stylianou.


Contact Information

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Lithuania

Civil Engineers' organizations of Baltic Countries Meeting

Civil engineers' organizations from Lithuania, Latvia and Estonia met in Klaipėda on 8th September 2022. ECCE Vice President/ Treasurer Helena Endriksone participated in this meeting together with others main representatives of Lithuania: LSIS President Žymantas Rudžionis and LSIS Director Robertas Encius; of Latvia: Chairman of LACE Board dr. sc. eng. Raimonds Eizensmits, and of Estonia: CEO of EACE Andres Piirsalu, EACE Managing Director Tiia Ruben.

The meeting began with a conference, the main topics of which were the definition of the professional qualifications of a civil engineer, preparation for the implementation of the European professional card of a civil engineer, innovations in the training of young engineers at universities, implementation of the "Green Course" in construction and sustainability challenges for civil engineers.

This was followed by a discussion on today's most important topics. It is strange that the problems in Latvia are exactly the same as in Lithuania. One of them is the implementation of fire safety in buildings, especially focused control at the construction completion stage. It is interesting that Estonia does not emphasize such problems. This encourages a deeper interest in how Estonians manage to avoid such problems and what effective measures have been implemented.

Previously, such meetings of the civil engineers of the Baltic countries were traditionally held annually, but due to the restrictions of the Covid-19 pandemic, the 2020 and 2021 meetings had to be postponed. The next meeting of construction engineers from the Baltic countries is scheduled for September 2023 in Latvia.

It was also agreed to organize an online meeting in November 2022, and in it to compare the professional standards of each country defining the professional qualifications of civil engineers, to discuss needs for improvements.
The participants of the meeting visited the object awarded in 2021 with the Gold medal in a contest Product of the year – the floating repair dock of the Klaipėda port, the largest such dock in the Baltic countries.

The participants attended also the the Builders' Day celebration in Palanga, during which Civil engineers of the year were awarded in three nominations – Civil engineer of the year - construction manager, Civil engineer of the year - designer and Civil engineer of the year - construction technical supervisor.

Portugal

Public presentation session of the Portuguese contribution to the book "Notes on the history of civil engineering - Volume III", published by ECCE

On October 13, 2022, the public presentation of the book **"Notes on the history of civil engineering - Volume III"**, published by the European Council of Civil Engineers (ECCE), took place at the National Association of Portuguese Engineers (Ordem dos Engenheiros de Portugal - OEP), in Lisbon, with particular emphasis on Chapter 5, entitled **"Recent developments in the Portuguese Civil Engineering"**, elaborated by several OEP members. OEP's participation in this publication, under the invitation of ECCE, stems from its membership of ECCE.

The Portuguese chapter brings together contributions from dozens of national Authors, under the coordination of three Portuguese Civil Engineers, one of whom is the Coordinator of the Southern Regional Council of the College of Civil Engineering of OEP.

The opening session of the book presentation ceremony was attended by the President of OEP, Fernando de Almeida Santos, the President of ECCE (with a recorded message), Andreas Brandner, the President of the National College of Civil Engineering of OEP, Humberto Varum, the former President of the same College, Rosa Maria Vaz da Costa, the three Coordinators of the Portuguese Chapter, Fernando Pinho, João Appleton and Válter Lúcio, many authors and other Colleagues with interest in the subjects.

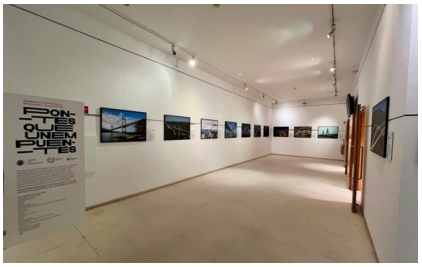
This session took place in a very pleasant atmosphere and was enjoyed by all those present.

Seminar on bridges “Pontes que Unem Puentes”

The National Association of Portuguese Engineers (Ordem dos Engenheiros de Portugal) and the Colegio de Ingenieros de Caminos Canales y Puertos, from Spain, promoted, as part of their bilateral cooperation, a Seminar dedicated to the theme Bridges ("Pontes que Unem Puentes”). The seminar took place on the October 14th, at the National Association of Portuguese Engineers Headquarters, in Lisbon. The session was attended by a significant number of Engineers and had the participation of the highest representatives of both professional associations, as well as designers and bridge construction and management companies.

In the morning, two technical sessions took place with a set of presentations of relevant projects of Portuguese and Spanish bridges, recently built or with undergoing rehabilitation, some of them with the involvement of Portuguese-Spanish consortiums. The structures evoked range from the 1812 Puente de la Constitución, in Cádiz, to the project for the new Bridge over the Douro (Metro). The afternoon was filled with a technical visit to the “25 de Abril” bridge.

As parallel event, it was inaugurated a photographic exhibition "Pontes que unem Puentes", at the National Association of Portuguese Engineers headquarters, that will be open until the end of January 2023, where 20 photographs of relevant Portuguese and Spanish bridges can be appreciated.



Slovenia

250 years since the construction of Jožef Mrak’s remarkable *klavže* dams

This year Slovenia has marked 250 years since the construction of the large masonry dams known as klavže in the area surrounding the town of Idrija in western Slovenia. Designed by the great master builder Jožef Mrak, a local man, these dams had the primary function of creating a large reservoir of water which, when released through the dam, served to transport timber downstream to the mercury mine in Idrija. The first of Mrak’s dams, on the Idrijca river and known as the Idrijske klavže, was completed in 1772. Four of these klavže dams still survive in the area around Idrija. The word klavže ultimately derives from the Latin word clausura meaning closure.

The story that leads us to the creation of the first klavže dates back more than 500 years, when the first traces of natural mercury were found in Idrija in around 1490. This discovery was followed by the rapid development of the Idrija mine, in which cinnabar ore was mined. Liquid mercury (quicksilver) was then extracted by smelting the ore. Mercury was becoming an increasingly precious commodity, above all for the extraction of gold and silver in mines located, for the most part, in South America and Mexico. Both gold and silver dissolve in mercury, which makes the extraction of these precious metals much easier. Mercury also had an extremely important military application, in that it was used as a detonator for firing projectiles.

As a result of the ever growing demand for mercury, the Idrija mine continued its astonishing development for centuries, with a constant expansion of its production capacities. The more mercury the mine produced, the greater the quantities of wood required, above all in the smelting plant, in which mercury was extracted through a distillation and evaporation process. Increasing amounts of timber were also needed to line and support the mine’s ever longer and deeper shafts. When wood began to grow scarce in the immediate vicinity of the mine, as a result of intensive felling, it became necessary to expand the wood extraction area to the wider surroundings of Idrija. This resulted in a new problem: how to transport large quantities of timber over distances that were constantly increasing. The only economical way to transport timber to the mine was by water, using the surrounding rivers and streams that flowed into Idrija. To begin with, simple dams consisting of stone blocks were built on these watercourses, creating relatively small reservoirs on the upstream side. Unfortunately, however, these dams were quite quickly destroyed by the largely torrential watercourses. The mine’s managers therefore decided to construct larger dams using cut

stone, that would allow larger quantities of water to collect in the reservoirs thus formed. Such dams are known as klavže in Slovenia.
In the second half of the eighteenth century, several large stone dams were constructed on the watercourses flowing into Idrija to facilitate the transport of large quantities of timber from the surrounding forests to the very centre of Idrija, where the mine was located. At the centre of each dam were two openings fitted with a sluice-gate mechanism. Once the reservoir behind the dam was full of water, these gates would be opened and the reservoir would empty rapidly. The rushing water would wash away the timber piled up below the dam and carry it downstream to the mine, in some cases over a distance of several kilometres. Once it reached Idrija, all the timber transported by the water was trapped by wooden barriers placed on a quieter stretch of the river. These barriers were colloquially known as rakes.

The largest of the four surviving klavže dams is the Idrijske klavže, built by Jožef Mrak in 1772.

The largest of all the *klavže* dams was the so-called *Idrijske klavže* on the river Idrijca, built in 1772. This dam is still standing today and, with its reservoir, serves the needs of a small hydropower plant. The reservoir behind this dam had a capacity of 210,000 cubic metres of water. Thanks to a specially designed sluice-gate mechanism, which could open very quickly, the entire quantity of water in the reservoir could flow out through the two openings in the dam in just 20 minutes, with an initial rate of flow reaching almost 400 cubic metres per second. This enormous quantity of water could easily transport up to 13,000 cubic metres of timber, carefully stacked in readiness directly below the dam, with a single emptying. In the space of around 20 minutes, the entire quantity of timber would be carried along the Idrijca to the immediate vicinity of the mine in Idrija – a journey involving a 400-metre drop in altitude.

Local man Jožef Mrak (1709–1786) outdid himself with the construction of the *Idrijske klavže* dam. As a young man, he had trained as a land surveyor and cave surveyor in the Idrija mine. A clever fellow, he quickly extended his expertise to other fields and before long had established himself as a master builder. As such, he was entrusted with the construction of three dams in total, the largest of them being the *Idrijske klavže* dam on the river Idrijca. The construction of the dam was extremely well thought out, with the builder having to take local geological conditions into account when laying the dam's foundations, which were anchored to the underlying rock. The resulting massive stone structure created a true gravity dam able to withstand the enormous pressure of the water in the reservoir behind it and, in particular, all the hydrodynamic effects that occurred during the rapid emptying of the reservoir. The solidity of the dam structure is the reason why all the masonry *klavže* dams have survived to the present day, with some minor repairs.

Dam on the river Belca Putrihove klavže on the river Belca

The only other region in Europe where similar stone dams were built in more or less the same period is the Austrian Tyrol. The *klavže* dams of the Idrija area are, however, bigger, both in terms of the size of the structures themselves and as regards the quantity of water contained in their reservoirs. The Idrija dams are among the first hydropower structures anywhere in the world, not of course for the production of electricity, which was not yet known at the time, but for the accumulation of potential energy (the retained water) that could be used for the efficient and economical floating of timber.

An interesting symposium was held in Idrija to mark the 250th anniversary of the construction of the *klavže* dams. Experts from a range of fields explained the importance of the dams for the development of the Idrija mercury mine and shed light on many aspects surrounding their construction. It is worth drawing attention to the fact that the builder of the *klavže*, Jožef Mrak, drew his own plans for their construction – plans which fortunately still survive. It is very probable that these are the oldest surviving construction plans in Slovenia. Mrak's oldest plan, for a wooden dam, is dated 1767.

The Slovenian Chamber of Engineers (IZS) commemorates Jožef Mrak by the fact that the highest award for engineering achievements it confers on its members bears the name of the surveyor, builder and hydrologist Jožef Mrak.

Author: Gorazd Humar

The Lantieri Bridge – A stone jewel in the middle of Vipava

Vipava is a small town in western Slovenia that is famous for its many small bridges: 27 in total. These bridges are the reason why some people call Vipava the "Venice of Slovenia". One of the most interesting Vipava bridges, crossing one of the numerous channels of the river Vipava (which gives the town its name), is the remarkably beautiful and unique Lantieri Bridge, built in 1669. The construction and architecture of this bridge, which is essentially a stone sculpture, are unique: nothing like it is found anywhere in the world. Every component part of the bridge is carefully carved from stone.

The old bridges of Vipava are the silent bearers of messages about the history and culture of this place. The same applies to the other stone bridges in the immediate surrounding area. Vipava's bridges are relatively small, but size is far from being the only measure of a bridge's importance. The Bridge of Sighs (*Ponte dei sospiri*) in Venice, for example, is not large, but it is one of the most visited bridges in the world. While the latter is certainly a wonderful creation in stone, its worldwide fame is perhaps due most of all to its connection with the famous adventurer Giacomo Casanova, who also visited Vipava as a guest of the Lantieri family and walked across its bridges. And since the size of a bridge is not the only thing that makes it important, it is worth taking a closer look at what it is that makes the Lantieri Bridge so special and unique.

Figure 1: The Lantieri Bridge, built in 1669, with the loggias in its central section Photo: G. Humar.

Historical background to the construction of the Lantieri Bridge

The noble Lantieri family played an important role in shaping Vipava and its history. Tabor Castle, the heart of the oldest part of the settlement, came into their possession in 1565. As military dangers subsided and the risk of Turkish incursions waned in the seventeenth century, the Lantieri family began to move from the cramped surroundings of the walled Tabor Castle to the flat area on the other (right) bank of the Vipava. It was there that the new palace of the Lantieri counts (as they now were) began to be built in the mid-seventeenth century. The design of the new building reflected new architectural fashions and an approach to spatial planning that was no longer as constricted as it had been in walled settlements. The architectonic arrangement of the other parts of the palace (stables, outbuildings, etc.) was subordinated to that of the main building. In the eighteenth century, when the baroque style established itself definitively in this part of the world, a longitudinal axis was created along the line of the building's central entrance hall. To the south, this axis crosses the square in front of the palace and continues through the castle park, with its fountain and avenue of trees, to the bank of the Vipava, some 500 metres away, while on the north side of the palace it crosses a stone bridge and traverses the courtyard surrounded by outbuildings. The original Renaissance palace, built in the mid-seventeenth century, was somewhat enlarged and thoroughly remodelled, with the result that just over a century after it was built – in 1762 to be precise – it gained the new Baroque appearance it still wears today.

The Lantieri family's distinguished guests

The Lantieri family hosted many distinguished and prominent personalities, both in their palazzo in Gorizia and in Vipava. In 1726 they hosted the Holy Roman Emperor Charles VI, the father of the later Empress Maria Theresa, in Vipava. Another guest worthy of particular mention was the famous Italian comic playwright Carlo Goldoni, whose father, Giulio, came to Vipava in 1726 as the physician of Count Francesco Antonio Lantieri and remained there for two years treating the sick count. Carlo Goldoni's memoirs contain an account of his own stay in Vipava in 1728 and offer vivid descriptions of life and customs there, including the frequent parties at the palace.

Other notable guests included the famous Venetian painter Rosalba Carriera and the great lover and adventurer Giacomo Casanova. The latter lived for some years in Gorizia as a guest of the Lantieri and Torriani families, remaining in the town until 1773. His memoirs include an account of his secret love for Countess Luisa Lantieri, née Wagensperg. Mozart's future librettist Lorenzo Da Ponte lived in Gorizia between 1779 and 1781 and was a popular guest with all the noble families of the town, including the Lantieris. All these guests would undoubtedly also have spent time at the Lantieri palace in Vipava, since this was where the family spent the greater part of the summer. In 1782 Pope Pius VI was a guest of the Lantieris in Gorizia for one night, an event commemorated by a stone plaque. It is also conjectured that the Pope spent a night at the Lantieri palace in Vipava en route to Vienna, although this has not been definitively established.

Figure 2: The year of construction of the palace – and the bridge – is carved into the keystone above the former entrance to the main palace building. Photo: B. Premrl.

The mystery of the date of construction of the Lantieri Bridge

Carved into the keystone above the palace's north door, which gives on to the stone bridge and the courtyard beyond, is a date that can be read both as 1659 and as 1669. Both dates are given by numerous authors as the year of construction of the Lantieris' new palace in Vipava. Deciphering the date is made more difficult by the fact that, in the place occupied by the third digit, we find both the number 5 and the number 6, the latter carved over the former. It may be that this inscrip-

Figure 3: The bridge runs from the courtyard side right up to the entrance to the palace. Photo: G. Humar.

tion indicates that the palace was built over a ten-year period from 1659 to 1669. Be that as it may, it is reasonable to assume that the date over the doorway also represents the date of construction of the stone bridge.

Further confirmation that the bridge was built in this period is provided by a copper engraving of the town of Vipava from around 1678. This copper engraving was made by the famous Carniolan historian Johann Weikhard von Valvasor during a stay in Vipava. A bridge extending from the courtyard gate to the palace doorway is clearly visible in the engraving. This image appeared in Valvasor's famous work *Topographia Ducatus Carnioliae modernae*, published just under a decade after the bridge was built.

Selecting the right stone to build the bridge

The stone bridge behind the palace was thus built contemporaneously with the palace itself, in all likelihood in the period 1659–1669. Since the main entrance to the palace was, at that time, from the courtyard side rather than from the front, as it is today, it was necessary to cross the stone bridge in order to enter the palace.

The bridge is built entirely of cut stone. All its component parts, from the piers on which it rests to the deck and balustrade, are made from carefully selected grey karst limestone of a type known as Repen, after the quarry at Monrupino (Slovene: Repentabor) near Trieste. Repen stone is of extremely high quality and has a homogeneous structure. The builder of the bridge knew what he was doing when he chose this particular type of stone, which is not as pleasing to the eye as white shelly limestone from Aurisina. The difference between these two types of karst stone is most visible when one compares the bridge and the arched doorway at the end of the bridge, where the latter is made of lighter Aurisina limestone and not Repen stone. The difference in colour is most visible on rainy days, when the colours of the different types of stone are intensified: when it rains, the stone of the doorway remains considerably lighter than the dark grey colour of the Repen stone with which the bridge is built. Repen limestone has one further excellent quality – low water absorption, which gives it excellent frost resistance and a long lifetime.

The master builder who built the Lantieri Bridge realised that, owing to the great height of the building, the bridge would remain in shadow for most of the day and be constantly exposed to humidity – and to freezing temperatures in winter.

The bridge structure

The choice of the type of structure needed to bridge the water-abundant channel of the Vipava flowing past the palace was not an easy one. The bridge-builder could not afford to be too choosy. A wooden bridge would not have been a good or lasting solution because of the short lifespan of its component parts. It should be pointed out that the entrance to the palace is located just over a metre above the normal water level of this channel of the Vipava, so when the water level is high following autumn rains it does not take much for it to flood the building's ground floor. Stone arch bridges were still the commonest bridge-building choice in the seventeenth century, but the Lantieri Bridge is not one of these either.

Details of the bridge:

- length 14.55 m
- width 2.65 m
- width at centre 4.32 m
- number of bridge piers 23
- height of bridge piers 1.54 m (approx.)
- number of balusters 58
- number of balustrade piers 24
- thickness of stone slabs 13–14 cm
- length of longest slab 2.60 m

An arch bridge providing access to the palace would have impeded the water flow to an excessive degree, with the result that such a bridge could have further exacerbated the problem of flooding. Only one solution thus remained – a bridge like the one that still stands today, designed in such a way as to impede the flow of water as little as possible. To achieve this, the bridge was placed on vertical piers almost two metres tall and cut from a single piece of stone. Self-supporting slabs of relatively thin stone (13–14 cm thick) were used for the deck. Some of these slabs were connected together using iron staples filled with lead. The traces of these staples can still be seen today on the surface of the bridge. Particular attention should be drawn to the hydraulically designed piers, which are wedge-shaped on the upstream side of the bridge in order to reduce water resistance, while they are flat on the downstream side. Such a bridge design enabled the optimal flow of water beneath the bridge.

The bridge superstructure widens at the centre into loggias, one on the right and one on the left. One can imagine how pleasant it must have been to sit on a bench in one of these loggias on a hot summer's day with the cool water bubbling away below.

Another curious and interesting feature of the bridge are the ornate balusters supporting the balustrade coping, not all of which are identical. Careful observation reveals that three of the 58 balusters have a different shape from the others. Whether this has some secret significance, we can only guess. We will probably never know the answer to this question, but, like the date above the doorway arch, this fact makes the Lantieri Bridge even more mysterious and interesting.

Figure 4: The third baluster from the left has a different shape to the others. Only two other balusters, of the 58 on the bridge, are shaped this way. Photo: G. Humar.

What makes the Lantieri Bridge unique?

I have already stated my firm conviction that the stone Lantieri Bridge is unique in terms of its construction. Although I have been trying for a number of years to find a bridge that is at least approximately similar, I have so far not found one anywhere in the world. Some years ago, in 2014, the European Council of Civil Engineers (ECCE) published a book entitled Footbridges, of which I was the editor-in-chief. The book covered more than 200 of the most beautiful and interesting footbridges from countries around Europe, including a number of historical structures, but despite the assistance of the many people involved in producing this book, in no country have I been able to find even one bridge with a construction that is at least similar to that of the Lantieri Bridge. Not even Venice, with its more than 400 bridges, has anything like it. All the bridges in Venice – be they stone, brick or cast iron – have an arch structure. Moreover, stone has practically never been used in bridge-building in the form of flat, load-bearing slabs as is the case with the Lantieri Bridge. The internal forces and stresses in flat stone load-bearing components are, in fact, completely different from those in stone arch bridges, where only compressive forces are present. In the case of flat slabs, there are also tensile stresses, which stone is not well able to withstand. On top of all this, flat stone slabs must not have any cracks, even tiny ones, since even the smallest crack can lead to the rapid collapse of one of the load-bearing parts of a bridge. This is the reason why the choice of Repen stone, with its very high level of homogeneity, was of key importance for achieving the strength and durability required for the bridge. I should also mention that the length of the longest stone load-bearing slab is a very respectable 2.60 metres, while its thickness is barely 13 centimetres. These stone slabs, furthermore, only have their ends resting on the bridge's piers. All this means that when talking about the masterful static and architectonic design of the bridge, and about its construction, we can only use superlatives.

Figure 5: View of the Lantieri Bridge over one of the channels of the Vipava, looking downstream. Photo: G. Humar.

Another important and unique characteristic of the Lantieri Bridge regards its piers, all of which are made from a single block of stone. Nowhere else have I ever found a stone bridge with fully monolithic piers. The usual method was for bridge-builders to construct masonry piers from several blocks of stone cemented together by mortar. Also interesting in our case is the shape of the piers, which are perfectly adapted to the structural requirements both of the bridge superstructure, where the deck slabs are laid, and of the bridge's underwater foundations. To cap it all, all the component parts of the bridge, including the balustrade are designed so as to create a remarkable architectonic whole. We could almost say that the bridge is a single stone sculpture, since every part of it was carefully carved by hand. This architectonic aspect, with the remarkable formal and geometric harmony of all the component parts of the bridge, are another reason why the Lantieri Bridge defies all categorisation.

Conclusion

In 2001, thanks to the efforts of the municipal administration and funding from the European Union's Phare programme, the Lantieri Bridge underwent a complete renovation. The bridge was dismantled and removed and then reassembled following the restoration of its individual parts, with quite a number of damaged elements needing to be replaced. The attentive eye will distinguish the new Repen stone elements from the original parts of the bridge dating from 1669, but time will gradually blur this difference. The important thing is that this unique stone monument has been preserved for us, as a testament to the skill of seventeenth-century master masons and to the taste and sophistication of the Lantieri family, who commissioned its construction.

The truly unique nature of the Lantieri Bridge elevates Vipava to the category of a very interesting tourist destination. For what would Venice be without its bridges? The same applies to Vipava.

Author: Gorazd Humar

Slovenian bridge designer Marjan Pipenbaher scoops awards for Pelješac Bridge

On 27 July 2022 one of the largest bridges in Europe was opened in Dalmatia, in the far south of Croatia. The Pelješac Bridge connects the Croatian mainland and the Pelješac peninsula and significantly reduces the journey time for those travelling by road to Dubrovnik. A long-cherished dream of successive Croatian governments and the recipient of significant financial help from the European Union, the bridge has finally begun to shine in all its splendour, three and a half years after the start of construction. The bridge was built by the China Road and Bridge Corporation (CRBC) and designed by the Slovenian structural engineer and bridge specialist Marjan Pipenbaher and his experienced team.

The 2,404-metre-long Pelješac Bridge ranks among the most demanding bridges in the world in terms of both the technological complexity of construction and the complexity of design. The initial technical conditions for the design were dictated by the highly specific characteristics of the site. The bridge is located in an area of extremely high seismic activity, exposed to strong and gusty winds from various directions. A further difficulty was represented by the complex geological structure below the seabed, which required special foundations consisting of driven steel piles that reach lengths of up to 120 metres. One might even say that the greater part of the bridge structure – certainly the most difficult part to build – lies under the water.

The bridge, which has a steel deck supported by steel stays fanning out from relatively low pylons, is designed as an extrados bridge with a semi-integral hybrid structure and five central spans. The biggest span is 285 metres long. The deck structure is 55 metres above the sea, which allows even the largest cruise ships to pass under the bridge. Marjan Pipenbaher's design paid particular attention to the architectonic aspect of the bridge, which, despite its imposing size, blends convincingly and unobtrusively with its surroundings.

Silver Order of Merit of the Republic of Slovenia

Shortly after the opening of the bridge, its designer Marjan Pipenbaher was awarded one of Slovenia's highest state decorations, the Silver Order of Merit, conferred on him by President Borut Pahor in recognition of his achievements in designing numerous bridges. The citation accompanying the decoration includes the following:

Marjan Pipenbaher was born in Ljubljana in 1957. He graduated from the Faculty of Civil Engineering, University of Maribor in 1981.

He began working in the design office of construction firm Gradis Design a year before graduating. Between 1984 and 1990 he was employed as a graduate teaching assistant at the Faculty of Civil Engineering, Transport Engineering and Architecture in Maribor, where he taught the subjects Statics of Linear Structures, Massive Structures and Prestressed Concrete. Since 1990 he has been managing director and senior bridge designer at the Maribor-based structural engineering firm Ponting Bridges, which he co-founded with Viktor Markelj. This internationally renowned firm specialises in designing demanding bridges and viaducts, deep foundations, high-rise tower blocks and other demanding engineering structures. In 2002 Marjan Pipenbaher founded the engineering consultancy Pipenbaher Consulting Engineers, which specialises in long-span bridges and also provides technical expertise and consulting services including non-linear dynamic analysis, seismic isolation design, geotechnical analysis and the preparation and organisation of wind-tunnel tests for long-span bridges.

The President of the Republic of Slovenia presents Marjan Pipenbaher with the Silver Order of Merit.

As well as being superlative engineering achievements, Pipenbaher's bridges are remarkable for the way in which they are integrated into their surroundings. The principal purpose of bridges is, of course, to enable the crossing of rivers and valleys, but Marjan Pipenbaher also ensures that his bridges make the landscape more beautiful – they are not mere accumulations of concrete elements but possess an inner mathematical harmony that shines with outward beauty and resonates in harmony with nature.

Marjan Pipenbaher has received numerous national and international prizes and awards for his professional work, research and teaching work at the Faculty of Civil Engineering, Transport Engineering and Architecture in Maribor.

These include:

- ECCS European Award for Steel Structures for the pedestrian and cycle bridge over the Drava in Ptuj, Slovenia
- Award of the Israeli Association of Construction & Infrastructure Engineers for outstanding achievements in infrastructure engineering (bridges category)
- Two awards from the Slovenian Chamber of Engineers (IZS) (2004, 2017) for multiple outstanding engineering achievements
- Puh Prize – national award for superlative achievements in bridge design
- Jožef Mrak Award – awarded by the IZS for innovation in structural engineering (Pelješac Bridge) Kolos Award – awarded by the Croatian Chamber of Civil Engineers for outstanding achievements in engineering (Pelješac Bridge project)
- Special Achievements Award of the business newspaper Finance
- Gold Plaque of the University of Maribor

The Republic of Slovenia has acknowledged bridge designer Marjan Pipenbaher's contribution to global expertise in the construction of demanding bridges by conferring on him the Silver Order of Merit.

Marjan Pipenbaher was presented with this high state decoration in a ceremony at the Presidential Palace in Ljubljana on 30 August 2022.

Highest award of the Slovenian Chamber of Engineers

Shortly after receiving the Silver Order of Merit, bridge designer Marjan Pipenbaher was presented with the Engineering Excellence Award, the highest award conferred by the Slovenian Chamber of Engineers (IZS). The presentation took place on IZS Day, which fell on 9 November 2022. The award citation ran as follows:

The Engineering Excellence Award is the IZS's highest professional award. Through his work, Marjan Pipenbaher is an example and a motivation for generations of young engineers and a great promoter of Slovenian civil engineering expertise.

Marjan Pipenbaher was presented with the award by IZS president **Črtomir Remec** and environment and spatial planning minister **Uroš Brežan** at a special ceremony in Ljubljana.

Turkey

Turkish Civil Engineering 18th Technical Congress and Exhibition Completed

The 18th Turkish Civil Engineering Technical Congress and Exhibition activities, first organized by the UCTEA Chamber of Civil Engineers in 1962, was held at the Süleyman Demirel Cultural Center of Istanbul Technical University on 7-8-9 November 2022.

The opening speeches of the congress were made by the President of the Organizing Committee Prof. Dr. Ahmet Cevdet Yalçıner and TCCE Chairman of the Board Taner Yüzgeç. Prof. Dr. Ayşen Ergin, as the invited speaker at the opening, gave a speech titled "The Vision Towards 2023 - Evaluation of the Civil Engineering History Process in the 100th Anniversary of the Republic and New Horizons".

In the congress, it was aimed to gather all national and international developments, changes, current issues, experience and knowledge in a common knowledge pool.

As an invited speaker to the congress, Prof. Dr. Aysen Ergin, Prof. Dr. Oral Büyüköztürk, Prof. Dr. Zekai Sen, Prof. Dr. Mehmet Ali Tasdemir, Prof. Dr. Haluk Gerçek, Prof. Dr. Elyas Ghaffori, Prof. Dr. Michael Fardis and Assoc. Dr. Katrin Bayer attended. 64 papers were presented in civil engineering sub-disciplines, 2 theme speeches were made. After the speeches and presentations, the questions of the audience were answered.

United Kingdom

New ICE president calls on all members to 'step up for the greater good'

Date 01 November 2022

In his Presidential Address, Keith Howells says that all members need to engage with the climate change issue.

Keith Howells is the 158th president of the ICE.

The new president of the Institution of Civil Engineers (ICE) has called on the silent "majority" of members to make their voices heard for the "greater good of the profession, industry, and of society".

"The truth is that only a small percentage of members are engaged … and the vast majority don't participate," said Keith Howells, the 158th President of the ICE.

Delivering the first in-person President's Address at One Great George Street in London since 2019, the former chair of Mott MacDonald said:

"I'm convinced that we could do so much more and be so much better if we drew on the untapped potential of that majority."

Howells acknowledged that to better engage the majority of members, the benefits of being involved in ICE programmes need to be made clearer.

Benefits such as the "kudos" of developing guidance that can become industry standards or taking part in research studies that can **influence government policy**.

Listening as much as speaking

"Please step up," he said. "Let us use your expertise for the greater good of the profession, industry, and of society. And help us do what we do better."

To this end, Howells said that he intends to make sure that his presidential visits over the next year will be as much about listening as speaking to members.

"I look forward to hearing your views about the profession and wider industry, how you see the future, and what more the ICE can do to help you as members," he said.

Climate change – the defining issue of our age

Howells also outlined the theme for his presidential year, drawing on his decades of experience in the industry.

"I've worked in over 30 countries, in both the developing and developed world, and it's been clear to me for many years that we can't continue as we have been. It isn't sustainable.

"There is little doubt that climate change is the defining issue of our age," he said.

Howells outlined the seven aims of the ICE for addressing the issue:

1. To raise engineering standards: specifically, by conferring professional qualifications on our members.
2. To put the decarbonisation of our industry at the heart of our agenda;
3. To transform the productivity of our industry through modern methods of procurement and construction, including the widespread use of data and digital technology;
4. To work with others to build resilience and mitigate the effects of climate change on our infrastructure;
5. To transform the availability of water, sanitation and affordable clean energy, particularly in the global south;
6. To develop a technology-focused mobility and transportation programme, to facilitate a reduction in the carbon intensity of transport;
7. And, to work with others to enhance the knowledge, insight and ethical understanding of engineers.

The strategy "recognises that the institution can most effectively achieve its charitable aims by supporting delivery of the UN Sustainable Development Goals (UNSDGs)," he said.

ICE Past Presidents **Rachel Skinner** (2020/2021) and **Ed McCann** (2021/2022) focused on the second and third aims, respectively.

Howells said: "This year, I want to drill down into how these aims interrelate and how we can build synergies between them to drive our ambition even harder."

"The first bullet is clearly at the heart of the ICE's purpose," the president said, referring to the aim to raise engineering standards through professional qualifications.

"[We] will begin consulting the membership on making elements of **CPD** mandatory, particularly those involving public safety."

He added: "We need to take our responsibility to maintain competence throughout our careers seriously, and we need to support the institution as it seeks to raise standards."

Director general Nick Baveystock steps down
Howells ended his speech by thanking ICE's director general, Nick Baveystock, who is leaving after 10 years in the role. He recounted Baveystock's achievements during that time, from **reforming the ICE's governance structure** to steering the organisation through the Covid pandemic.

Securing the **Chartered Infrastructure Engineer** title was another.
Howells said: "It cannot be underestimated how vital this forward-looking move to qualify a wider set of the built-environment workforce will be in tackling the issues I've talked about today."

President's Future Leaders
Keith Howells has also unveiled the seven **Future Leaders (pictured below)** he has chosen to support him during his presidency.

Each ICE president chooses a group of the brightest graduate and technician members to work on projects that are integral to the ICE's Plan and have an effect on the industry.

This year's President's Future Leaders are:

- **Lucy Davison**, assistant engineer at SYSTRA
- **Benjamin Delmond**, graduate water civil engineer at Jacobs
- **Rachel Hayden**, field engineer at Bechtel
- **Svetlana Joao**, structural engineer at TYPSA
- **Kyle McLean**, civil engineer at Mott MacDonald
- **Rohinee Pattani**, assistant engineer at SNC Lavalin Atkins
- **Blake Scott**, assistant consultant at WSP

By Anh Nguyen, content strategy manager at the ICE

ICE launches State of the Nation 2022 report

Date 18 October 2022

This year's theme is infrastructure productivity.

The ICE has launched its State of the Nation report and an associated toolkit to help improve productivity throughout an infrastructure lifecycle.

Improving efficiency at the design stage can optimise the use of construction space. Image credit: Shutterstock

What is State of the Nation?
ICE produces a State of the Nation (SoN) report each year, focusing on a timely topic that affects the UK's infrastructure and economy.
The report makes recommendations on how the sector can tackle the issue.

What is the topic of State of the Nation 2022?
This year's topic is improving infrastructure productivity, a key theme for ICE President Ed McCann's presidency.

The ICE believes that how infrastructure is delivered throughout its lifecycle will improve the sector's productivity.

Through this State of the Nation report, which is backed by best-practice case studies, our aim is to show how infrastructure productivity can be transformed, while delivering carbon reduction goals.

To support this year's report, the ICE is also creating an accompanying online toolkit, Driving Productivity: Infrastructure Lifecycle Guidance.

The guidance provides detailed advice on actions that can be taken to improve productivity throughout the infrastructure lifecycle.

This year's SoN report and toolkit

- Report: State of the Nation 2022: Improving infrastructure productivity
- Online toolkit: Driving Productivity: Infrastructure Lifecycle Guidance

Who has contributed to State of the Nation and the toolkit?
The ICE has worked closely with a steering group led by the Productivity community advisory board (CAB), which is made up of experts across the built environment, to develop the report.

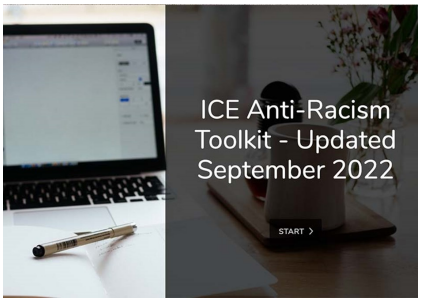
The Productivity CAB is co-chaired by Andy Alder, vice president of major programme and project delivery at Jacobs, and Darren James, chief executive of Keltbray.

The full list of CAB members can be found in the State of the Nation 2022 report.

By Anh Nguyen, content strategy manager at the ICE

ICE reconfirms commitment to anti-racism with updated toolkit

Date14 September 2022



The Anti-Racism Toolkit Version 2 builds on feedback and new insight from the first edition, published in 2021.

The toolkit offers practical advice, particularly for small and medium enterprises (SMEs).
The ICE has published a second version of its Anti-Racism Toolkit demonstrating its ongoing commitment to equality, diversity and inclusion (EDI).

The toolkit aims to help organisations with training and development materials as well as practical steps and guidance, enabling them to be better allies to Black and minority ethnic people working in the industry.

Dr Anusha Shah, ICE Vice President, said: "I really hope that organisations will find this toolkit useful: whether as a learning resource to become a better ally to Black, Asian and minority ethnic colleagues, or as a source of inspiration for action towards creating fair, respectful and inclusive workplaces."

Dr Anusha Shah, ICE Vice President

"The case studies and ideas it contains are practical and can be implemented right now," she added.

Why was the toolkit created?
The initial version was launched in 2021 following a 2020 survey led by the ICE's Fairness, Inclusion and Respect (FIR) Committee, chaired by Kate Cairns, which asked members a series of questions about their experiences of racism across the sector.

The survey found, among other things, that 81% of Black and minority ethnic members had experienced a degree of racism in the workplace. It also suggested a gender and generational gap, with women and younger engineers being more aware of racism.

The survey also found that minority ethnic engineers were six times more likely to be furloughed than white engineers during the Covid-19 pandemic.

Penny Gilg, vice chair of FIR committee

Penny Gilg, vice chair of the ICE Fairness, Inclusion and Respect Committee, said: "A year on from undertaking a **survey on racism** there isn't a week goes by where I don't tell someone the key findings and see their faces drop."
Gilg pointed out that while some tools like unconscious bias training may have become very common, they shouldn't be 'tick-box exercises' that are completed once a year and then forgotten.
She said that systemic problems in the industry remain, and they create unseen barriers and unintended consequences that mean that it's easier for some people to progress in the industry than others.
"That is why we must continue to be aware of and learn about these barriers," she said.
The original toolkit, which was developed with the Association for Black and Minority Ethnic Engineers (AfBE-UK), accompanied an updated **Fairness, Inclusion and Respect Action Plan**.

Gilg said: "We've updated our toolkit based on feedback and new insights, and we will continue to do so. Please use it, share it, and tell us how we can improve it further. We'd also love to hear how you have benefited from using it."

What is in the Anti-Racism Toolkit Version 2?
The toolkit offers practical advice, particularly for small and medium enterprises (SMEs), which, the survey identified, don't always have the same level of resources as larger corporations to help them tackle the issues.
It includes advice on how to deal with racism, such as how to make an action plan and develop company policy.
It explains how to be an ally and an active bystander as well as how to deal with aggressions and microaggressions, and how to talk about race with members of staff.

The toolkit also features industry case studies of corporations that have launched initiatives to develop and improve EDI.

These initiatives include reverse mentoring schemes, ethnicity pay gap reporting and employee networks.
A glossary is also available.

The updated toolkit follows a **memorandum of understanding** that the ICE signed with five built environment organisations earlier this year. This led to a 45-point **action plan** to jointly improve EDI.

By Ana Bottle, assistant digital content editor at ICE

ICE's top three priorities for the UK's new prime minister

Date 25 October 2022

With Rishi Sunak confirmed as the UK's prime minister, the ICE outlines what he should prioritise regarding infrastructure.

Prime Minister Rishi Sunak has warned of "difficult decisions" ahead. Image credit: ICE

It's been a whirlwind few weeks in Westminster.

After a Conservative Party leadership election over the summer, which saw Liz Truss installed as the UK's prime minister, she has since been replaced by Rishi Sunak.

Major challenges such as the cost-of-living and energy crises have not gone away, while Mr Sunak has warned of "difficult decisions" ahead as the UK enters into a "profound economic crisis".

Here are the top three infrastructure issues that ICE thinks should be in Mr Sunak's in-tray.

1. Quick action needed on net zero

Time is of the essence when it comes to climate action.

The Climate Change Committee's (CCC) **latest progress report** highlighted the gap between the UK's 2050 net zero target and realistic policy to achieve it.

Meanwhile, we're already seeing the effects of a warming world through the record temperatures across the UK this year.

During the leadership campaign over the summer, Mr Sunak pledged to create a Department for Energy and make the **UK energy independent by 2045** by massively expanding the nation's offshore wind capacity.

He also pledged not to build onshore wind farms, which is at odds with Ms Truss's commitment as PM to ensure planning consent for onshore wind is brought in line with other infrastructure.

Action is needed to:

- co-ordinate net zero across all levels of government – including to ensure infrastructure-related outcomes from levelling up and net zero are aligned, **as ICE recommended earlier this year**,
- ensure more focus is given to reducing energy demand, and
- fill in the gaps in the **Net Zero Strategy**, including plans to decarbonise the power grid by 2035.

Who pays and how to pay for a fair net zero transition are politically complex questions. Particularly now that inflation is squeezing the public's spending capacity.

Public support needs to be based on a realistic understanding of the changes that are needed to our infrastructure system.

At the same time, policy frameworks themselves need to be designed to benefit the public and protect livelihoods. Evidence shows that the net zero transition is affordable – delays and inaction are not.

2. More detail on next steps for the Integrated Rail Plan

We need to see real progress in delivering the Integrated Rail Plan (IRP).

While the £96 billion plan represents the biggest public investment in rail, detail is sorely lacking. Furthermore, we're no closer to certainty on when the public will see the benefits of improved rail services.

While Ms Truss only recently announced that she was committed to building the full Northern Powerhouse Rail proposals, it is unclear where Mr Sunak stands on the issue.

This lack of detail is why the ICE and the All-Party Parliamentary Group for Infrastructure recently **produced a report looking at how delivery of the IRP can be sped up**.

This includes the need for a National Transport Strategy, and what principles should be used for adding projects to the IRP's core pipeline.

Public transport has a key role to play in rebalancing the economy to level up underperforming regions and transitioning to net zero.

There's little time to lose in delivering the major strategic infrastructure projects needed to achieve those goals.

3. Keeping up momentum on delivery

Staying the course where things are working is important.

While new prime ministers like to put their own stamp on things, it's vital that we reinforce the progress made in previous years, such as the launch of the **National Infrastructure Strategy**.

We need to ensure the new PM continues the recent momentum on bringing greater efficiency to delivering infrastructure programmes.

This includes the refresh of the **Transforming Infrastructure Performance** programme and the publication of

the **Construction Playbook**.

The policy tools are in place. The emphasis should now be on driving implementation across government departments and seeing a step-change in the delivery of infrastructure projects and programmes.

Efficiency in delivery is even more important with inflation predicted to be running at 15% by early 2023.

What will the new PM's first few months look like?
The economic crisis, primarily driven by rising inflation and energy prices, is expected to dominate policy discussions once a new PM is in place.

A medium term fiscal plan on 31 October is likely to set out some of Mr Sunak's "difficult decisions", and will provide an indication as to where his policies differ from the previous PM's.

If energy prices remain as high as they currently are, the transition to a net zero energy system will ultimately result in a significant national cost saving.

The new PM needs to explain how investment in renewable energy, energy efficiency, and decarbonising transport are answers to the cost-of-living crisis, not the causes of it.

ICE will continue to work with decision makers across the political spectrum to ensure the public get the infrastructure they need and can trust it will be delivered.

By David Hawkes, head of policy at ICE

News from ECCE Partners

World Council of Civil Engineers (WCCE)

World Council of Civil Engineers (WCCE) 2nd Extraordinary General Assembly

WCCE's 2nd Extraordinary General Assembly of the World Council of Civil Engineers was held virtually on 29th September 2022. The celebration of such Extraordinary Assembly was required by WCCE by-laws as the procedure to propose any changes in the bylaws. The meeting was attended exclusively by WCCE member representatives regarding the matters addressed. All member organizations entitled to vote attended this milestone meeting. The General Assembly also launched several initiatives which will be finalized during WCCE's 17th General Assembly.

Main outcomes

New WCCE appointed treasurer
The General Assembly ratifies the Executive Committee's proposal to appoint **Mr. Nathaniel Matalanga as WCCE's Treasurer** due to the resignation of former WCCE Treasurer and current President Elect, Mr. Óscar Sánchez Zúñiga.

WCCE appointed liaisons to WFEO Standing Committees
The General Assembly ratified the appointment of the following WCCE appointed liaisons to WFEO Standing Committees.

- Anti-corruption - **Jorge Abramian, Emilio Colon**
- Disaster Risk Management - **Aris Chatzidakis**
- Education in Engineering - **Jeannette Muñoz Abella**
- Engineering and the Environment - **Alfonso Alberto González Fernández, Jeannette Muñoz Abella**
- Young Engineers / Future Leaders - **Lilian Mumbua Kilatya**
- Information and Communication - **Tito Fenech Cardoza**
- Engineering for Innovative Technologies - **Iuri Svanidze**
- Education & Capacity Building - **Emilio Colon**
- Water - **Adolfo Guitelman**
- Working Group on Infrastructure Report Card - **Andreas Brandner**

Updated Standing Committee Framework

Once reviewed the following proposals, the General Assembly agreed the creation of the following **Standing Committees - SC** and **Working Groups - WG**:

Argentina

- **WG Sustainable Development** to be chaired by *Ing. Juan Domingo Yacopino.*

Kenya

- **SC Young Professionals** to be chaired by *Eng. Lilian Mumbua Kilatya*

Nigeria

- **SC Circular Economy** to be chaired by *Eng. Aishatu Umar*
- **WG Transportation Infrastructure** to be chaired by *Eng. Joseph Olatunde Akinteye*

Host country renewal of current Standing Committees
Once reviewed the following proposals, the General Assembly agreed to renew the host country of the following Standing Committees for the period 2023 - 2025.

Argentina

- **SC on Water** to be chaired by *Ing. Adolfo Guitelman*

Puerto Rico

- **SC Construction and Ethics** to be chaired by *Ing. Emilio Colón*

Zimbabwe

- **SC Education & Capacity Development** to be chaired by *Eng. Martin Manuhwa*

Elections to WCCE's Executive Committee - Europe Continental Representative
The General Assembly ratified *Ms. Teresa Maria Soares Costa as elected Continental Representative to the Executive Committee on behalf of European countries for the period 2022 - 2024.*

Host for WCCE's 18th and 19th General Assemblies
The General Assembly agrees to celebrate:

- its WCCE's 18th General Assembly in Kenya, under the auspices of Institution of Engineers Kenya.
- its WCCE's 19th General Assembly in Cyprus under the auspices of the Cyprus Association of Civil Engineers.

Date for WCCE's 17th General Assembly
Last but not least, the General Assembly also confirmed that **WCCE's next General Assembly will be held on January 26th, 2023 in Porto, Portugal**

ECCE is an International Member of WCCE. ECCE's permanent representative in the WCCE ExCo is ECCE Vice President/Treasurer Mrs. Helena Endriksone. ECCE President Mr. Andreas Brandner, ECCE Vice President/ Treasurer Mrs. Helena Endriksone, ECCE ExBo Member Mrs. Jeannette Muñoz Abela and ECCE General Secretary Mrs. Maria Karanasiou participated in WCCE's 2nd Extraordinary General Assembly.

American Society of Civil Engineers (ASCE)

The American Society of Civil Engineers represents more than 150,000 members of the civil engineering profession in 177 countries. Founded in 1852, ASCE is the nation's oldest engineering society.

ASCE stands at the forefront of a profession that plans, designs, constructs, and operates society's economic and social engine – the built environment – while protecting and restoring the natural environment.

Through the expertise of its active membership, ASCE is a leading provider of technical and professional conferences and continuing education, the world's largest publisher of civil engineering content, and an authoritative source for codes and standards that protect the public.

The Society advances civil engineering technical specialties through nine dynamic institutes and leads with its many professional- and public-focused programs.

- Member strength: all career stages & students; all sectors & disciplines
- Local strength: 94 sections, 162 branches, 13 groups, 407 student chapters, and 119 younger member groups
- Technical strength: 9 specialty institutes

Get to know ASCE President 2022-2023 Maria C. Lehman, P.E., ENV SP, F.ASCE

Maria Lehman is GHD's Infrastructure Market Leader for the United States since May of 2020. Maria was the former Vice President for Critical Infrastructure for Parsons, COO and Acting Executive Director of the New York State Thruway Authority and Commissioner of Public Works for Erie County, NY. She has 40 years of diverse, increasingly responsible, multi-disciplinary technical and leadership experience, both in the private and public sectors, and in traditional and alternative delivery. She received her BS in Civil Engineering at the State University of New York at Buffalo, Magna Cum Laude, and is a licensed Professional Engineer in several states.

She has served as Principal-in-Charge, Project Executive, Program and Project Manager, and Project Engineer on more than 700 projects which required everything from scoping, planning, environmental studies, preparation of plans, specifications, and estimates, construction management and operations and maintenance; ranging in size from $10,000 to $3.9 billion. Her strength has been in the area of complex element coordination; well-developed project communications, government and community relations, including innovative finance and grants; and fast track implementation on complex projects. She has successfully led alternative delivery projects such as Design Build, Best Value, and Public Private Partnerships.

Maria has served ASCE since her days at UB, first as a student, then Younger Member. She co-founded the Northeast Region Younger Members Council in 1983, and stayed active in her Section, serving all Board positions including President in 1990, while her husband Carl was President Elect. She was a delegate to the NYS and District 1 Councils and became a Society Director in 1993, followed by Zone 1 Vice President in 2001. She has continuously served or chaired numerous Society-level Committees, Councils, and Institutes since 1993. She returned to the Society's Board of Direction in 2018 as Assistant Treasurer.

Maria has won numerous national, statewide and local awards including the ASCE President's Medal, Edmund Friedman Young Engineer Award, UB's School of Engineering Alumna of the Year, and the New York State Society of Professional Engineers Engineering Manager of the Year.

ASCE Strategic Plan 2023-2028

Approved by the Board of Direction in October 2022, ASCE's new strategic plan encompasses significant shifts in the profession and around the world since the previous plan. It also highlights ASCE's role as a top leader in infrastructure development.

Our vision
Engineered and natural systems work in harmony for the benefit of humanity

Our mission
Lead the civil engineering profession to sustainably advance and protect the health, safety and welfare of all.

Commitment to our members
Inspire, connect, and serve our global membership to maximize their professional and personal growth and magnify their lifelong professional impact.

Strategic shifts
1. **Innovate**. Define and drive creative development and renewal of future-ready infrastructure.
2. **Advocate**. Promote and facilitate civil engineering leadership in developing equitable solutions to global challenges.
3. **Inspire**. Energize and cultivate a diverse, inclusive, and engaged civil engineering community.
4. **Stimulate**. Accelerate development and adoption of emerging technologies, analytics, and systems thinking.
5. **Magnify**. Amplify our collective impact through a vibrant, engaged, and growing membership.
6. **Deliver**. Effectively manage our resources to provide exceptional value to members.

The ASCE Strategic Plan details each goal and includes strategies.

Japan Society of Civil Engineers (JSCE)

Japan and Its Need to Increase Its Number of Global Civil Engineers

The construction industry in Japan was a world-leader in the 1990s. As an earthquake-prone country, Japan's earthquake-resistant technologies are examples of top-level construction technologies recognized around the world. However, compared to the other major countries in the world, Japan's percentage of overseas projects is small, making up only a few percent of its total projects. In other words, the percentage of Japanese civil engineers working overseas is small. Compared to other countries, the percentage of Japanese civil engineers who move overseas and work for an overseas company is also small. This can be said for Japanese across the border and

not just those in the construction industry. Japanese based overseas are only 1% of the population, a small percentage when compared to other major countries in the world.

The reason why the percentage of Japanese working overseas is small is common knowledge; it stems from lacking English proficiency. This point was also made evident in an annual survey of civil engineering students at Hokkaido University, where I used to teach. Furthermore, it was observed that as a civil engineer, it is difficult to acquire the qualifications required overseas due to how the job market works in Japan. Another point that must be remembered is that many Japanese believe that living in Japan is better than living in another country and so cannot find a reason to live overseas. This is so-called introverted thinking. This point was also highlighted in the survey of civil engineering students at Hokkaido University.

Is this set of circumstances really a good thing? The civil engineering field has a close connection with global issues. In terms of decarbonization, the construction industry is responsible for about one-third of carbon dioxide emissions. It is obvious that civil engineering must take action globally. In the years to come, construction projects will be rolled out in developing countries, and many of these projects will be international. It is obvious that we must deploy construction projects with a worldwide perspective. In developed countries, the age of building infrastructure is over and we are entering an era of maintenance and repair. We cannot hope for an increase in construction projects like in the past. The involvement of major developed countries in construction projects overseas is normal. Why is Japan the exception? We should completely change this situation in which we are satisfied with just the domestic market in Japan with its constant demand for construction due to reconstruction from natural disasters. I wish Japan, as an industrial nation, would learn by observing other industries deploying projects across the globe.

I am not saying that the majority of Japanese construction projects should be done overseas. I believe we should start by increasing the current number of projects by about two or three-fold, and that it is natural for Japan, which has construction technologies equivalent to that of other developed countries, to have 10 to 20% of its projects as overseas projects. Civil engineers needed for this are Japanese and international civil engineers working in Japan, and in addition, overseas civil engineers working in partnership with Japanese companies. For this, we need initiatives spanning industry, government, and academia to formulate strategies in the public and private sectors, improve the treatment of human resources with career experience internationally in public and private organizations, and showcase global projects and civil engineers to students. Focusing predominantly on young civil engineers, JSCE currently provides schemes for civil engineers to develop themselves into global civil engineers. The Subcommittee for Making Civil Engineers More Internationally -Minde (Chairperson: Keitaro Konuma), which is one such example, holds lively discussions that also include female and international civil engineers. I hope we will see the fruits of these efforts in the years to come.

By Tamon Ueda
110th JSCE President
**Photo by Rumiko Ito*

You can access the latest JSCE International Activities Center Newsletter of December 2022 at the link here IAC News No.122, December 2022.

Korean Society of Civil Engineers (KSCE)

KOREAN SOCIETY OF CIVIL ENGINEERS

KSCE Journal of Civil Engineering

The KSCE Journal of Civil Engineering is a technical monthly journal of the Korean Society of Civil Engineers. The journal reports original study results (both academic and practical) on past practices and present information in all civil engineering fields.

The journal publishes original papers within the broad field of civil engineering, which includes, but are not limited to, the following: coastal and harbor engineering, construction management, environmental engineering, geotechnical engineering, highway engineering, hydraulic engineering, information technology, nuclear power engineering, railroad engineering, structural engineering, surveying and geo-spatial engineering, transportation engineering, tunnel engineering, and water resources and hydrologic engineering. Both theoretical and practice-oriented papers, including case studies and reviews, are encouraged.

Read the Volume 26, issue 12, December 2022

You can access the KSCE International Newsletter at the link here **KSCE International Newsletter**.

World Federation of Engineering Organizations (WFEO)

WFEO-UNESCO Joint Meeting for Member States – The strategic role of engineering for accelerating the delivery of the 2030 Agenda

This joint event presented the UNESCO-WFEO partnership and contributions to the SDGs by working with Member States, especially on engineering capacity building and education, and how it is relevant to the variety of regional and national contexts with regard to building more inclusive and responsible communities. It took place at UNESCO Headquarters in Paris, Room IV, Thursday 27 October 2022.

The World Federation of Engineering Organizations (WFEO) was created under the auspices of UNESCO in 1968, and represents some 30 million engineers through its 100 members, which are national and regional professional engineering institutions. WFEO is an NGO in official relations with UNESCO (associate status), as well as in liaison status at the United Nations ECOSOC and with other UN agencies and intergovernmental agencies. UNESCO and WFEO have now a +50-year history of fruitful cooperation. In 2018, a symposium was held at UNESCO to celebrate this anniversary. Engineering has always been a means to address UNESCO's priorities, and has become increasingly important in order to progress the Sustainable Development Goals.

Amongst recent achievements, WFEO had initiated the creation of a *UNESCO World Engineering Day (WED) for Sustainable Development* (approved by UNESCO's 40th General Conference, 2019), and since then has been coordinating the celebration of this Day worldwide, on 4 March of each year, bringing considerable attention to the role of engineers and engineering in achieving the 17 SDGs. The celebration of the World Engineering Day has greatly increased the awareness of SDGs in engineering communities and mobilized engineers all over the world actively engaged in the implementation of SDGs in engineering practices.

General introduction by Prof. José Vieira, WFEO President

In 2021, WFEO worked closely with UNESCO and made significant contributions to the second edition of UNESCO's Engineering Report, Engineering for Sustainable Development: Delivering on the Sustainable Development Goals, officially launched on 4 March 2021, in the context of accelerating actions to deliver on the Sustainable Development Goals. The report includes important recommendations on many fields of engineering which are relevant to the SDGs, with a special focus on the critical role of engineering capacity building and engineering education to train more engineers with the right skills.

Together, the Sector for Natural Sciences and WFEO have set a good example of how the sectors, Member States and NGOs in official relations can work together towards objectives that serve the common good.

The presentations and recordings of the event are available here are available in the links below and the photos are available in this page.

You can access the WFEO Flash-Info #47, October 2022 at the link here **WFEO Flash-Info #47, October 2022**

European Civil Engineering Education and Training Association (EUCEET)

The General Assembly of the EUCEET Association took place on 30th September 2022, in Tirana, Albania and a new administrative council was elected.

The Administrative Council is composed of the President, one Vice-President and five (5) elected members.

The Secretary General attends the meetings but with no voting right.

The EUCEET Association Administrative Council 2022-2024 is composed as follows:

Prof. Jose TURMO
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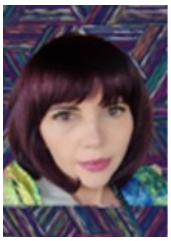

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EU News

Trans-European Transport Network (TEN-T): Council adopts its position to ensure sustainable connectivity in Europe

European Council
Council of the European Union

On 5th December 2022 the Council adopted its common position **(general approach)** regarding the Commission proposal for a regulation on Union guidelines for the development of the **trans-European transport network**.

Building a reliable, seamless, and high-quality trans-European transport network (TEN-T) will ensure **sustainable connectivity** across the European Union without physical interruptions, bottlenecks or missing links.

The network will contribute to achieving the EU's **sustainable mobility** objectives, the proper functioning of the internal market and the economic, social and territorial cohesion of the EU. It is intended to be developed step by step, with proposed deadlines in 2030, 2040 and 2050. The proposal therefore sets clear deadlines for the completion of the trans-European transport network: the **core** network should be completed by **2030**, the newly added **extended core** network by **2040** and the **comprehensive** network by **2050**.

The Commission proposal places particular focus on a new governance structure for the TEN-T policy and multimodality by setting ambitious goals, in particular for the development of railway infrastructure.

Read more

Member States adopt new sustainability reporting rules

On 28th November 2022, the EU Council gave its final approval to the "Corporate sustainability reporting" Directive (CSRD).

This means that companies will soon be required to publish detailed information on sustainability matters. This will increase a **company's accountability**, prevent divergent sustainability standards, and ease the transition to a **sustainable economy**.

In practical terms, companies will have to report on how their business model affects their sustainability, and on how external sustainability factors (such as climate change or human right issues) influence their activities. This will equip investors and other stakeholders better for taking informed decisions on sustainability issues.

The CSRD strengthens the existing rules on non-financial reporting introduced in the Accounting Directive by the 2014 **non-financial reporting directive** (NFRD) , which are no longer tailored to the EU's transition to a sustainable economy.

Read more

State of the Union address by President von der Leyen

On 14th September 2022, the President of the European Commission delivered the State of the Union address to the Parliament. The address takes stock of the achievements of the past year and presents the priorities for the year ahead. **DG GROW will play an important role in delivering many of these flagship initiatives**, among others: the **European Critical Raw Materials Act;** the **SME Relief Package**, including the **Late Payment Directive**; the **recognition of professional qualifications of third country nationals**; the proposal for the creation of an **EU Hydrogen Bank** …

Read more

Is the EU legal framework for products still fit for purpose?

Digital product passport, digital CE marking, software as a product, circular economy, modified products made available on the EU market: Is the New Legislative Framework (NLF) able to cope with the digital and circular economy objectives? The evaluation of the NLF assesses how the system has been performing since 2008 when it was adopted and whether it is able to preserve its relevance in the light of new challenges.

Read more

Access2finance website – the one-stop-shop on EU financial support: Major upgrade

Find out how to apply for loans and equity financing supported by InvestEU and other EU programmes, all in one place! The access2finance.eu website has over 1 million page views per year (hosted on YourEurope). It provides detailed information on how businesses can apply for EU loans and equity finance through one of over 1,000 financial institutions or investors. It offers a one-stop-shop for SMEs looking for loans and equity financing supported by the InvestEU programme, Cohesion Policy and funding from the European Investment Bank Group.

Thanks to a major upgrade of the website, businesses can now find out how to apply for finance supported by the InvestEU programme such as under the recently signed €25 million agreement with the Green Generation Fund targeting sustainable and female-led businesses. The upgrade also helps businesses to find tailor-made financing according to their specific needs such as size of company, region of activity (NUTS-3) and investment focus including financing available to the 14 industrial ecosystems.

More information How to apply for EU finance

More environmentally sustainable and circular products

Many more physical goods on the single market will soon be friendlier to the environment, circular, and energy efficient throughout their whole lifecycle. This is thanks to the Ecodesign for Sustainable Products (ESPR) proposal which aims to make sustainable products the norm by setting product requirements on e.g. durability, reusability, reparability, resource and energy efficiency. The proposal was put forward by the European Commission in March 2022, in the context of the Circular Economy Action Plan and the European Green Deal.

Read more

Public Consultations of the European Commission

Please note that the European Communications regularly does Public Consultations many of which are very relevant for the engineering professions. We would therefore advise to regularly check the page and contribute to relevant topics through the link **here**.

Upcoming events

Date	Event	Place
25-27.01.2023	**17th WCCE General Assembly** https://wcce.biz/	Porto, PORTUGAL
6-8.02.2023	**International Forum on Infrastructure and Civil Engineering (ICEFORUM2023)** https://www.continuumforums.com/2023/iceforum	Porto, PORTUGAL
4.03.2023	**World Engineering Day 2023** https://worldengineeringday.net/	
20-23.03.2023	**3rd International TMM_CH Conference on "Transdisciplinary Multispectral Modelling and Cooperation for the Preservation of Cultural Heritage, Recapturing the World in Conflict through Culture, promoting mutual understanding and Peace"** https://www.tmm-ch.com/	Athens, GREECE
24-26.05.2023	**76th ECCE General Meeting**	Nicosia, CYPRUS

Date	Event	Place
26-27.05.2023	**8th International Conference "Construction Safety and Health"**	Nicosia, CYPRUS
25-28.06.2023	**9th International Congress on Environmental Geotechnics**  https://www.iceg2022.org/	Chania, GREECE
5-6.10.2023	**14th International Conference "Modern Building Materials, Structures and Techniques"** https://vilniustech.lt/mbmst	Vilnius, LITHUANIA
11-13.10.2023	**7th World Engineers Convention 2023 – WEC 2023**  http://www.wec2023.com/	Prague, CZECH REPUBLIC
19-20.10.2023	**2nd joint International Conference of EUCEET and AECEF "The role of interactive teaching/learning approaches in the development of soft skills for Civil Engineering Education"**  See more	Pisa, ITALY

With 2022 winding down and 2023 right around the corner we wanted to say thank you to the ECCE members and partners for the ongoing support and cooperation.

We are grateful for your efforts and commitment to ECCE's works and initiatives for the betterment of the civil engineering profession in Europe. We look forward to working closely with you in the New Year and beyond.

Our warmest wishes for a joyful holiday season and a happy and prosperous new year!

All the best from the President, the Executive Board and Secretary of the European Council of Civil Engineers,

Andreas Brandner
ECCE President

Maria Karanasiou
ECCE General Secretary

European Council of Civil Engineers

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"Civil Engineers at the Heart of Society Building Life Quality and a Sustainable Environment"

The European Council of Civil Engineers (ECCE) was created in 1985 out of the common concern of the professional bodies for Civil Engineers in Europe that the Civil Engineers working together across Europe could offer much more to assist Europe advance its built Environment and protect the natural environment.

At the European Union level, ECCE aims to promote the highest technical and ethical standards, to provide a source of impartial advice, and promote co-operation with other pan-European organizations in the construction industry. ECCE also advises and influences individual governments and professional institutions, formulates standards and achieves a mutual compatibility of different regulations controlling the profession, and formulates standards for a European Code of Conduct of the Civil Engineering Profession and disciplinary procedures applicable throughout the Union.