



European Council of Civil Engineers

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62nd ECCE General Meeting – 30th ECCE Anniversary 30th – 31st October 2015, Prague, Czech Republic



Group photo of the 62nd ECCE General Meeting participants

The 62nd ECCE General Meeting – 30th ECCE Anniversary was held on 30th – 31st October 2015, in Prague, in Czech Republic, hosted by the Czech Chamber of Certified Engineers and Technicians (ČKAIT). The 62nd ECCE General Meeting consisted of three parts. The first one was a short workshop that took place on Friday 30th October at the University Centre for Energy Efficient Buildings (UCEEB) organized by the hosts, then it was the regular General Meeting of ECCE and the third part was the celebration of the 150th Anniversary of the founding of “the Society of Architects and Engineers of the Kingdom of Bohemia (SIA)” that took place on 31st October at the Bethlehem

Chapel.

ECCE President, Włodzimierz Szymczak officially opened the 62nd ECCE General Meeting welcoming all the participants and especially the ones that joined our meeting for the first time: the ICE General Director and Secretary, Nick Baveystock and the WCCE new President Ing. Alfonso Alberto Gonzalez Fernandez. In his opening speech he highlighted that we were about to conclude the year of the 30th ECCE Anniversary but this year would also be remembered for another very sad and unfortunate reason which is the unexpected passing of our friend and ECCE Past President Vassilis Economopoulos. A moment of silence was observed by all the participants as a gesture of respect to the recently deceased friend.

During the first part of the ECCE General Meeting, a lecture was delivered by Prof. Ing. Petr Hájek, Head of Department Research Programme Architecture and Environment, about Research in Czech Republic. Prof. Hájek also introduced and described UCEEB and their activities to the audience and following the lecture there was a guided tour to the UCEEB's premises including the laboratories, where people had the chance to get a better understanding of the concept of UCEEB and the projects they undertake.



Workshop at UCEEB

The second part of the ECCE meeting was attended by 50 delegates and invited guests. Črtomir Remec ECEC President, Klaus Thurriedl ECEC Secretary General, Nikolay Kiryukhin President of the Union of scientific and engineering associations of Ukraine and Emilio Colon WCCE Past President were among the invited guests. During the second part of the meeting a memorial presentation for Vassilis Economopoulos was delivered by the ECCE President and following this friends and colleagues that wished to say something

about Vassilis took the floor. Also, ECCE President awarded the ICE as one of the founders of ECCE 30 years ago. During the meeting of the ECCE General Assembly a number of important issues were discussed and several significant decisions were taken regarding the strategy and the future of ECCE. Firstly, the Update/Change of our Articles of Association was finalized and voted by the General Assembly. The major changes that were introduced concern the following subjects:



From left to right: ECCE President awarding Nick Baveystock ICE Executive Director & Secretary

- Opening of Individual Membership to ECCE (with the status similar to Associate Membership).
- Introduction of the ECCE Civil Engineering Card as an ECCE membership card (the card is connected with the ECCE Individual Membership).
- Extension of the Executive Board mandate from two years to three years after 2018.

Another important change for the future of ECCE is related with the termination of the ECCE Standing Committees during the 63rd ECCE General Meeting, in March 2016. Instead of focusing on Standing Committees, ECCE will focus on the production of solid and good quality Position Papers that will reflect ECCE's positions and that will be brought forward to Brussels. In this way ECCE will boost its visibility and our goal of influencing the EU Authorities will become more likely. A detailed document

regarding these changes and the new procedures for the tendering and production of ECCE Position Papers will be published in the close future. In addition, important discussions were held about the financial matters in ECCE (budget and membership fees) and following up these initial discussions further steps will be taken in order for ECCE to cope with the new circumstances. Last but not least, the Transatlantic Trade Investment Partnership (TTIP) negotiations were discussed and brought to the attention of ECCE members.

On Saturday afternoon, all the participants attended the 150th SIA Anniversary. Before the ceremonial opening of the event there was an exhibition about the 150 years of SIA. During the event the results of the survey on TOP TEN personalities of Civil Engineering and Architecture 1865 – 2015 were announced. Also, the "Tree of Life" associations working in the field of construction and architecture which operated between 1865 - 2015 in the Czech Republic was presented to the public. This festive meeting was organized in cooperation with the leadership of the Czech Technical University in Prague. The event was attended by invited leaders of government, local authorities, professional associations and professional schools, architects, designers, building contractors and manufacturers of building materials. At the end of the meeting a reception was organized for all the participants.



From left to right: ECCE President Włodzimierz Szymczak and CKAIT President Pavel Křeček



From left to right: Nicola Monda (CNI, Italy), Gabor Szollossy (HCO, Hungary), Alfonso Alberto Gonzalez Fernandez WCCE President, Włodzimierz Szymczak ECCE President, Črtomir Remec ECEC President, Emilio Colon WCCE Past President, Gorazd Humar ECCE ExBo Member and Past President

The European Council of Civil Engineers would like to express its gratitude to the Czech Chamber of Certified Engineers and Technicians for the successful organization of the 62nd ECCE General Assembly and their exceptional hospitality.

For more information regarding the 62nd ECCE General Meeting please visit our website [here](#).

63rd ECCE General Meeting Announcement

4th - 5th March 2016, Madrid, Spain



Colegio de Ingenieros de Caminos,
Canales y Puertos



SAVE THE DATE!

The 63rd ECCE General Meeting will take place on 4th – 5th March 2016, in Madrid, Spain hosted by the Colegio de Ingenieros de Caminos, Canales y Puertos (CICCP). The 63rd ECCE General Meeting will be part of the celebration of an International Civil Engineering Congress which would host the IberoAmerican Congress of Civil Engineering concurrent with its annual General Assembly. Preliminary announcement of the event from CICCP can be found [here](#).

Stay updated through our website [here](#).

European Criteria Applied to the Assessment of Works Tenders in public procurement

Dear Readers,

For the last couple of years a heated debate on the best possible shape of public procurement laws and procedures has been observed.

This debate has led to the emergence of new amendments in European Directives governing this area.

In spite of all efforts made by European Authorities and other parties involved in the debate, the current shape of the European law concerning this area is far from satisfying. There is one advantage, though: all interested already know that the lowest price as the main criterion doesn't work at all!

Just before our 62nd General Assembly in Prague started, ECCE members had received a written proposal for European Criteria Applied to the Assessment of Works Tenders in public procurement.

Today we are publishing this document in our e-journal for everyone to see.

We would like to encourage you to read this document and share your comments / remarks / opinions with us.

The final version of this document, after approval by ECCE Members, will be presented in Brussels as an ECCE proposal of significant enhancement of the European public procurement law.

Włodzimierz Szymczak

President of ECCE

**EUROPEAN CRITERIA
APPLIED TO THE ASSESSMENT OF WORKS TENDERS
(proposal)**



1. WORKS TENDER ASSESSMENT CRITERIA PROVIDED FOR IN EU DIRECTIVES

1.1. Introduction

European Union's two key directives related to public procurement have seen recent amendments. These include the following:

- Directive 2014/24/EU of the European Parliament and of the Council of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (Official Journal of the European Union L 94 of 28 March 2014, page 65), hereinafter referred to as the "2014/24/EU classic directive";
- Directive 2014/25/EU of the European Parliament and of the Council of 26 February 2014 on procurement by entities operating in the water, energy, transport and postal services sectors and repealing Directive 2004/17/EC (Official Journal Of the European Union L 94 of 28 March 2014, page 243), hereinafter referred to as the "2014/25/EU sectoral directive".

The deadline by which the provisions of the aforementioned directives need to be implemented in the EU Member States expires, pursuant to Art. 90(1) of the 2014/24/EU classic directive and Art. 106(1) of the 2014/25/EU sectoral directive, on 18 April 2016. The implementation covers both statutory provisions, as well as secondary and administrative legislation required to fully abide by the aforementioned directives. So, not much time is left until the deadline expires, and some of the directives' provisions require that further details be specified in secondary legislation. A document on the European criteria applied to the assessment of works tenders may comprise a part of such legislation.

The 2014/24/EU classic directive is concerned with public procurement in the area of construction work, supplies or services (Art. 1(2)). The 2014/24/EU sectoral directive is also concerned with public procurement in the area of construction work, supplies or services (Art. 1(2)), but by entities operating in the water, energy, transport and postal services sectors (Art. 8-14).

The present paper proposes certain tender assessment criteria that may be applied to public procurement procedures concerned with construction works. Hence, it is valid for both directives referred to above. The criteria specified herein may be also used while awarding contracts for supplies or services.

1.2. Description of tender assessment criteria pursuant to the 2014/24/EU classic directive and the 2014/25/EU sectoral directive

The contract award criteria are laid down under Art. 67 of the 2014/24/EU classic directive and Art. 82 of the 2014/25/EU sectoral directive. Due to the fact that the wording of both articles is identical (with the only differences between them stemming from translation), it has to be stressed that both directives adopt the same tender assessment approach. **As the 2014/24/EU classic directive and the 2014/25/EU sectoral directive adopt an identical approach to the tender assessment criteria, the following part of the present study will make references to the 2014/24/EU classic directive only.**

The present chapter states the provisions of Art. 67 "Contract award criteria", without any author's comments. The wording has been edited to eliminate provisions that are not of any significance for the assessment of the criteria, and the locations from which text has been removed are marked with the (...) symbol.

1. (...) contracting authorities shall base the award of public contracts on the most economically advantageous tender.
2. The most economically advantageous tender from the point of view of the contracting authority shall be identified on the basis of the price or cost, using a cost-effectiveness approach, such as life-cycle costing in accordance with Article 68, and may include the best price-quality ratio, which shall be assessed on the basis of criteria, including

qualitative, environmental and/or social aspects, linked to the subject-matter of the public contract in question.

Such criteria may comprise, for instance:

- a) quality, including technical merit, aesthetic and functional characteristics, accessibility, design for all users, social, environmental and innovative characteristics and trading and its conditions;
- b) organization, qualification and experience of staff assigned to performing the contract, where the quality of the staff assigned can have a significant impact on the level of performance of the contract; or
- c) after-sales service and technical assistance, delivery conditions such as delivery date, delivery process and delivery period or period of completion.

2. ASSUMPTIONS MADE WHILE FORMULATING WORKS TENDER ASSESSMENT CRITERIA

2.1. Assumptions stemming from the provisions of the 2014/24/EU classic directive

2.1.1 Criteria as a finite set

Pursuant to the provision of Art. 67(4) "award criteria shall not have the effect of conferring an unrestricted freedom of choice on the contracting authority". In order for the contracting authority not to enjoy an unrestricted freedom of choice, the tender assessment criteria shall constitute a final set.

2.1.2. Unambiguousness of criteria

Pursuant to Art. 67(4) the criteria "shall ensure the possibility of effective competition and shall be accompanied by specifications that allow the information provided by the bidders to be effectively verified in order to assess how well the tenders meet the award criteria". In order to enable effective verification of the information provided by the bidders, the tender assessment criteria need to be unambiguous.

2.1.3. Life cycle taken into consideration while determining the criteria

Pursuant to Art. 67(2), the most economically advantageous tender is identified by the contracting authority "using a cost-effectiveness approach, such as life-cycle costing in accordance with Article 68".

Pursuant to Art. 68(1), life-cycle costing covers the following:

- a) costs, borne by the contracting authority or other users, such as:
 - costs of performance (relating to acquisition),
 - costs of use, such as consumption of energy and other resources,
 - maintenance costs,
 - end of life costs, such as collection and recycling costs;
- b) costs imputed to environmental externalities - the cost of emissions of greenhouse gases and of other pollutant emissions and other climate change mitigation costs.

Life-cycle costing may be relied upon while estimating the cost of performance of contract and the costs of operation of the subject of contract. The costs of operation, which are, to a much higher degree than the costs of performance, an estimate only, may include the costs of use, maintenance and decommissioning, recycling included.

2.1.4. Criteria weighting

Pursuant to Art. 67(5) "The contracting authority shall specify, in the procurement documents, the relative weighting which it gives to each of the criteria chosen to determine the most economically advantageous tender (...). Those weightings may be expressed by providing for a range with an appropriate maximum spread".

So, a weighting should be assigned to each of the tender assessment criteria.

2.2. Author's assumptions

2.2.1. Criteria weighting expressed in points

In order for the quality-related criteria to be readily comparable, they should be expressed with the use of numbers. A point-based assessment is the easiest way to assess the tenders. The most advantageous tender is the one that has been awarded the highest number of points. It has been assumed that a given tender may be awarded 100 points maximum.

2.2.2. Division of criteria into groups

The tender assessment criteria have been divided into two groups based on the contracting authority's obligations:

- 1) criteria in which the contracting authority defines a level of fulfillment of a given criterion,
- 2) criteria in which it is not the contracting authority but the bidder who defines a level of fulfillment of a given criterion.

As far as the first group is concerned, points are awarded to the bidder if his tender allows the contract to be performed despite the fact that the level of criteria fulfillment is different than the one defined by the contracting authority. The number of points received in relation to a given criterion is proportional to the difference between the level

of the bidder's fulfillment of a given criterion, and the level defined by the contracting authority. There are 6 such criteria. They have been numbered, in the present paper, as criteria 1 through 6.

As far as the second group of criteria is concerned, points are awarded to the bidder depending on the level of fulfillment of a given criterion, compared to the highest level achieved by all bidders seeking the award of the same contract. The number of points received in relation to a given criterion is proportional to the difference between the level of the bidder's fulfillment of a given criterion, and the highest level achieved by the bidders. There are 7 such criteria. They have been numbered, in the present paper, as criteria 7 through 13.

2.2.3. Equal treatment of the cost of performance and cost of operation

The directive's provisions prove that the cost of operation that has to be taken into consideration needs to be treated in a special manner (Art. 67(2)) "using a cost-effectiveness approach, such as life-cycle costing". Due to the current trend based on which excessive importance is attached to the cost of performance of the subject of the contract, and due to the current trend of attaching excessive importance to the cost of operation of the subject of the contract, it seems that the same weight should be attached to both of the aforementioned criteria.

3. PROPOSAL OF UNIFIED EUROPEAN CRITERIA FOR ASSESSING WORKS TENDERS

3.1. Cost of performance of the subject of contract

This criterion depicts the potential financial and organizational abilities of the bidder - the higher the costs of the subject of the contract and the longer its performance period, the greater financial and organizational ability of the bidder has to be. This criterion encompasses the EU's criterion of performance of the subject of contract, but also its technical merit, aesthetic and functional characteristics, accessibility and design for all users.

Pursuant to Art. 5(1) "The calculation of the estimated value of a procurement shall be based on the total amount payable, net of VAT, as estimated by the contracting authority". Pursuant to Art. 67(2) "The cost element may also take the form of a fixed price or cost on the basis of which economic operators will compete on quality criteria only. Member States may provide that contracting authorities may not use price only or cost only as the sole award criterion or restrict their use to certain categories of contracting authorities or certain types of contracts".

Pursuant to Art. 69(3) "Contracting authorities shall reject the tender, where they have established that the tender is abnormally low".

Tender assessment procedure based on criterion No. 1

The contracting authority defines the highest estimated cost of performance of the subject of the contract. The cost of performance of the subject of the contract, as defined by the bidder, may be lower than the highest estimated cost by 20% at the most. Any cost that is by more than 20% lower than the highest estimated cost is deemed to be abnormally low. The difference between the highest cost of performance of the contract and the lowest cost defined by the bidder is worth 15 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.2. Cost of operation of the subject of contract

This criterion combines the EU's criterion related to the cost of operation with other factors, such as: quality, social and environmental considerations, commerce and its conditions, after-sales service, technical assistance and delivery terms.

Pursuant to Art. 67(3) "Award criteria shall be considered to be linked to the subject-matter of the public contract (...) at any stage of their life cycle". Pursuant to Art. 68(1), the life-cycle costing includes, inter alia, costs of operation, maintenance and decommissioning, including recycling. It has been adopted, for the purpose of the present paper, that the aforementioned costs comprise the cost of operation.

Tender assessment procedure based on criterion No. 2

The contracting authority defines the highest estimated cost of operating the subject of the contract over its life cycle (without the cost of performance of the subject of the contract)... The difference between the highest cost of operation of the subject of the contract and the lowest cost defined by the bidder is worth 15 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.3. Independent performance of the subject of contract

This criterion defines the level of independence of the bidder while performing the subject of the contract - the higher the level of independence, the greater the probability of proper coordination while performing the contract. By performing the majority of construction works on his own, the economic operator has real influence on proper performance of the contract. This criterion encompasses the EU-defined right to demand that specific tasks be performed by the economic operator himself.

Pursuant to Art. 63(2) "In the case of works contracts (...) contracting authorities may require that certain critical tasks be performed directly by the bidder himself". In accordance with Annex XII, a certain percentage value of the contract may be identified that economic operator intends to subcontract.

Tender assessment procedure based on criterion No. 3

The contracting authority identifies the lowest percentage share of the subject of the contract that has to be performed by the tendered himself, with the said share not being lower than 50%. The difference between the highest percentage share defined by the bidder and the lowest percentage share is worth 10 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.4. Number of references confirming completion of similar contracts

This criterion is a proof of the bidder's experience in performing similar contracts. Pursuant to Art. 58(4) "Contracting authorities may require, in particular, that economic operators have a sufficient level of experience demonstrated by suitable references from contracts performed in the past". Pursuant to Annex XII, the technical ability of the economic operators is proven by "a list of the works carried out over at the most the past five years, accompanied by certificates of satisfactory execution and outcome". This criterion encompasses the EU criterion of experience.

Tender assessment procedure based on criterion No. 4

References should relate to the period of 5 years preceding the tender announcement date. As far as this criterion is concerned, a distinction should be made based on the country of origin of the references - EU country in which the tender has been announced, another EU Member State or a country from outside the EU. Such a manner of assessing the number of references takes into consideration the knowledge of the European reality, including the legal, technical, economic and organizational requirements that apply in the specific EU Member State.

The contracting authority determines the lowest number of references accepted - not fewer than 2. The number of references provided by the tendered may equal, at the most, twice the lowest number of references required. The difference between the highest number of references offered by a bidder and the number of references required by the contracting authority is worth 10 points. The remaining bidders are awarded the number of points that is worked out proportionally.

For comparison purposes, the number of references is worked out as a product of the number of references and a specific factor that equals:

- a) 1.0 if a given contract was completed in the EU country in which the current tender has been announced;
- b) 0.5 if a given contract was completed in another EU Member State or in a third country being a party to the WTO's Government Procurement Agreement (GPA) or other international agreements;
- c) 0.25 if a given contract was completed in a country other than those listed under clauses a) and b).

3.5. Duration of performance of the subject of contract

This criterion defines the bidder's potential - the shorter the contract performance period, the quicker the subject of contract will be available for use, and the lower the social costs resulting from the burden related to the performance of the contract will be. This criterion encompasses the EU criterion concerned with the contract performance period and social considerations.

Tender assessment procedure based on criterion No. 5

The contracting authority defines the longest permissible contract performance period. The contract performance period defined by the bidder may at the most by 20% shorter than the longest permissible period. The difference between the longest contract performance period and the shortest period defined by the bidder is worth 10 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.6. Warranty term covering the subject of contract

This criterion proves the quality of the subject of the contract - the longer the warranty period, the higher the probability of the subject of the contract being of proper quality. This criterion encompasses, to the highest degree, the EU criterion of quality.

Tender assessment procedure based on criterion No. 6

The contracting authority defines the shortest warranty period covering the completed subject of the contract. The warranty period defined by the bidder may be at the most twice as long as the shortest permissible warranty period. The difference between the longest warranty period defined by the bidder and the shortest permissible period is worth 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.7. Bidder's equipment-related potential

This criterion evidences the bidder's equipment-related potential available in the territory of the country in which the tender has been announced. The higher the number of pieces of equipment that may be taken advantage of while performing the contract, the higher the probability of such equipment being used for performing the contract. The newer the equipment, the higher the probability of its correct operation while performing the subject of the contract. More technically advanced machinery and equipment should enable better performance of the subject of the contract, e.g. instead of using pre-finished products, if specific equipment is available, monolithic elements may be created on site. Pursuant to the provisions of Annex XII, the technical ability of economic operators should be evidenced by "a statement of the tools, plant or technical equipment available (...) for carrying out the contract". This criterion encompasses the EU criterion of technical potential.

Tender assessment procedure based on criterion No. 7

The contracting authority identifies the equipment units required to perform the subject of the contract, which will be compared at the tender assessment stage. The bidder who has, at his disposal, the highest number of relevant equipment units is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.8. Innovation-oriented approach of the bidder

This criterion proves the bidder's innovation-oriented approach. Pursuant to Art. 70 "Contracting authorities may lay down special conditions relating to the performance of a contract (...). Those conditions may include economic, innovation-related considerations".

Tender assessment procedure based on criterion No. 8

The contracting authority defines the scope of patents obtained by the bidders over the course of five years preceding the tender announcement, or patents that the bidder was taking advantage over that same period of time. The bidder who presents the highest number of patents confirmed by submission of the front page of the patent document, is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.9. Professional qualifications of the bidder's staff

This criterion evidences the bidder's personnel-related potential available in the territory of the country in which the tender has been announced. The higher the number of personnel holding relevant professional qualifications and capable of participating in the performance of the contract, the higher the probability of them being involved in the performance of the contract. This criterion encompasses the EU criterion of qualifications.

Pursuant to Art. 19(1), in the case of public works contracts, "relevant professional qualifications of the staff to be responsible for the performance of the contract in question" may be required. Pursuant to Art. 58(1) "In procurement procedures for services, in so far as economic operators have to possess a particular authorization or to be members of a particular organization in order to be able to perform in their country of origin the service concerned, the contracting authority may require them to prove that they hold such authorization or membership".

Tender assessment procedure based on criterion No. 9

The contracting authority identifies the professional qualifications required to perform the subject of the contract, which will be compared at the tender assessment stage. The bidder who employs the highest number of persons holding relevant professional qualifications is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.10. Professional experience of the bidder's staff

This criterion evidences the experience of the personnel employed by the bidder in the territory of the country in which the tender has been announced. The higher the number of personnel with relevant experience, capable of participating in the performance of the contract, the higher the probability of them being involved in the performance of the contract. This criterion encompasses the EU criterion of professional experience.

Pursuant to Art. 58(4) "With regard to technical and professional ability, contracting authorities may impose requirements ensuring that economic operators possess the necessary human and technical resources and experience to perform the contract to an appropriate quality standard".

Tender assessment procedure based on criterion No. 10

The contracting authority identifies the professional experience required to perform the subject of the contract, which will be compared at the tender assessment stage. The bidder who employs the highest number of persons with relevant professional experience is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.11. Working conditions at the bidder's

This criterion proves that the bidder attaches importance to the working conditions his company offers. The higher the number of personnel hired based on an employment contract, capable of participating in the performance of the contract, the higher the probability of them being involved in the performance of the contract. This criterion encompasses the EU criterion of abiding by the provisions of social and labor law.

Pursuant to Art. 18(2) "Member States shall take appropriate measures to ensure that in the performance of public contracts economic operators comply with applicable obligations in the fields of (...) social and labor law provisions". Pursuant to Art. 70 "Contracting authorities may lay down special conditions relating to the performance of a contract (...). Those conditions may include (...) employment-related considerations".

Tender assessment procedure based on criterion No. 11

The bidder whose ration of employees hired based on employment contract to all employees is the highest, is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.12. Development of the bidder's staff

Criterion evidencing the care that the company attaches to the development of its staff. Young persons should participate in the performance of the contract, who will be able to gain professional experience thanks to their involvement in the project. The higher the number of young people performing the contract, the better development of the bidder's staff. Pursuant to Art. 70, contracting authorities may lay down special conditions relating to the performance of the contract. Those conditions may include economic, innovation-related considerations. This criterion encompasses the EU criterion of technical potential and qualifications.

Tender assessment procedure based on criterion No. 12

The bidder who employs, based on employment contracts, the highest number of persons who are under 35 years of age, is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

3.13. Occupational activation of the disabled at the bidder's

Criterion evidencing the care that the company attaches to professional activation of the disabled. Disabled persons should also participate in the performance of the contract, as they will be able to gain professional experience thanks to their involvement in the project. The higher the number of the disabled performing the contract, the better their professional activation. This criterion encompasses the EU's social criterion.

Tender assessment procedure based on criterion No. 13

The bidder who employs, based on employment contracts, the highest number of disabled persons, is awarded 5 points. The remaining bidders are awarded the number of points that is worked out proportionally.

4. LIST OF WORKS TENDER ASSESSMENT CRITERIA

Table 1 presents the criteria applied to the assessment of works tenders, along with their weights

Table 1 List of works tender assessment criteria and their weights

No.	Tender assessment criteria	Weight [points]
1	Cost of performance of the subject of contract	15
2	Cost of operation of the subject of contract	15
3	Independent performance of the subject of contract	10
4	Number of references confirming completion of similar contracts	10
5	Duration of performance of the subject of contract	10
6	Warranty term covering the subject of contract	5
7	Bidder's equipment-related potential	5
8	Innovation-oriented approach of the bidder	5
9	Professional qualifications of the bidder's staff	5
10	Professional experience of the bidder's staff	5
11	Working conditions at the bidder's	5
12	Development of the bidder's staff	5
13	Occupational activation of the disabled at the bidder's	5
	Total:	100

5. SUMMARY

The present paper is a Polish attempt to define uniform works tender assessment criteria to be applied in all European Union Member States. The 13 criteria presented above enable each tender to be assessed in an unambiguous manner, and enable to select the tender that is most advantageous from the economic and the technical point of view. Adoption of the works tender assessment criteria and their weights presented above makes the selection of a specific tender undisputable. The method proposed herein offers also a better guarantee that the contract performed will be characterized by higher quality, as the tender assessment criteria applied currently boil down, in practice, to attaching excessive importance to the lowest contract price.

Introduction of unified tender assessment criteria throughout Europe will result in increased quality of the contracts performed, real competition between bidders from all EU Member States, and, in consequence, in more rational spending of public funding in Europe.

Memorial for the Late ECCE Past President Vassilis Economopoulos

In Memoriam

Vassilis Economopoulos

3 November 1960– 4 October 2015



On October 4th 2015, ECCE Past President Vassilis Economopoulos passed away in Athens, Greece. An enthusiastic and dedicated worker towards the highest professional standards of the engineering profession and its efficient commitment to society, he has seeded with his contribution his legacy, not only in Greece but throughout the world. He has been a teacher, mentor, professor, colleague but mostly a friend, impacting and making a difference wherever initiative in which he became involved.

Current Chairman on ECCE's Standing Committee on Associate Membership, his commitment to ECCE has been total since its inception in 1985, bearing ECCE's presidency during the period 2008-2010. He has held all its different posts and has been member of ECCE's Executive Board uninterruptedly since 1995.

His career on professional chambers was extensive and has held several offices in many and diverse organizations. He has been Special Advisor to WFEO president, WCCE Treasurer, Member of the Greek Delegation to FEANI, President of the Association of Civil Engineers of Greece (ACEG) and Vice President in the Pan-Hellenic General Assembly of the Technical Chamber of Greece (TCG). He was also elected as a Chairman of the Transport Economics Committee of the International Association of Public Transport (UITP) and a member of its Policy Board.

Civil Engineer graduated from the National Technical University of Athens (NTUA), acted as individual professional by the license from the Technical Chamber of Greece (TCG). He also held a graduate of Law and Public Administration Department of the National University of Athens.

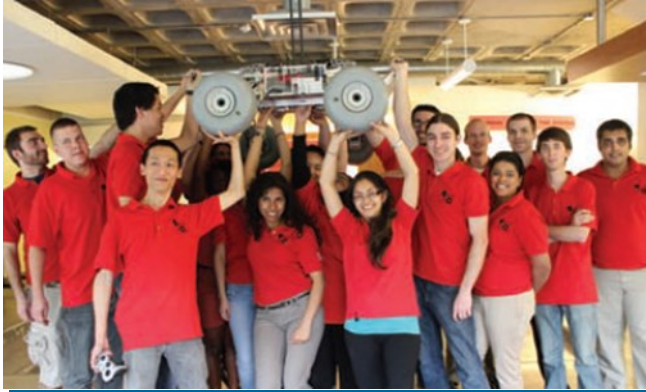
His professional career developed as independent consultant in transport and water engineering. He was appointed Chief Executive Officer and later Director General of the Athens Metro Operation Company during the period 2001 to 2007 and has participated in the Administrative Boards of Public Companies in construction and design sector. He was also appointed to the staff Co-operator of a Vice President of the European Parliament Antonios Trakatellis (2004-2007), Governor of a Pension Fund and President in a Municipal Water Company.

We raise our prayers for his widow, Anna, and his sons, Panos and Babis for the irreparable loss.



BUILDING AN ENGINEERING RENAISSANCE IN ONTARIO

by Janusz Kozinski, PhD, P.Eng., and Eddy Evans



The multi-disciplinary undergraduate and graduate students that make up York University's Rover Team hoist the rover that they entered into NASA's Lunarobotics Mining Competition and Mars Society's University Rover Challenge.

ENGINEERING EDUCATION should expand technical knowledge, facilitate interdisciplinary learning and foster creative thinking. In Ontario and Canada, we have been successful, and we continue to make significant progress, in the first challenge. However, we have neither broadened the engineering curriculum enough nor given students adequate opportunity to express their creativity.

The engineering education system is not producing the type of graduates Canada needs to compete on the world stage. And it's losing some of the best and the brightest, particularly women, to rival disciplines, such as medicine or biotechnology, that offer a clearer path to changing lives for the better.

Thomas Jefferson drafted America's Declaration of Independence from the comfort and convenience of the swivel chair he created.

Like renaissance women and men before and since, Jefferson's extraordinary abilities did not simply coexist in his mind. Benjamin Franklin read Jefferson's drafts and looked out onto the horizon for inspiration with the help of the bifocal lenses he invented. Another great North American, Canada's Sandford Fleming was cut from a similar cloth as his renaissance cousins south of the 49th parallel. One of the first truly global Canadian engineers, Fleming created the time zones that bind us together in order and harmony, and applied his artistic talents to the design of Canada's first postage stamp, as familiar back then as the Apple logo is today.

It's no coincidence that many engineers who change the world possess not just a technical brilliance but also an acute understanding of what it is to be human, gained from their pursuit of knowledge of all aspects of life. An inquisitive and sophisticated engineer will be a better engineer, and one best placed to succeed in conquering the challenges we face. Yahoo! CEO Marissa Mayer is a remarkable role model for entrepreneurial engineers regardless of gender. She's also an accomplished ballet dancer who performed the Nutcracker while studying engineering at Stanford. Canadian astronaut and engineer Julie Payette speaks six languages, and is also a pianist and singer, performing with the Montreal Symphony Orchestra and Placere Vocale de Bâle in Switzerland.

We must offer engineering students an academic timetable that integrates extracurricular activities rather than forcing them down a rigid academic path that may restrict their creative opportunities.

"The Macintosh turned out so well because the people working on it were musicians, artists, poets and historians—who also happened to be excellent computer scientists," Steve Jobs once told *The New York Times*.

CORE SKILLS

At the turn of this century, "The Future of Engineering Education" (Rugarcia et al., 2000) proposed seven core skills that engineers will need to master to flourish in a constantly changing world:

1. independent, interdependent and lifetime skills;
2. problem-solving, critical-thinking and creative-thinking skills;
3. interpersonal and teamwork skills;
4. communications skills;
5. self-assessment skills;
6. integrative and global-thinking skills; and
7. change management.

Similarly, in their 2009 article, "A global engineer for the global community," Adrian Chan, PhD, P.Eng., and Jonathan Fishbein led an effort to define the global engineer:

1. superior communication skills and understanding across different cultures and languages;
2. a facility for multi-disciplinary and interdisciplinary teamwork;
3. a well-developed sense of social responsibility and ethics, with due consideration in his/her personal and profes-

sional activities;

4. being entrepreneurial; and

5. an ability to deal with complexity and systems thinking.

Both these studies describe the modern-day renaissance engineer. The engineers of the future—renaissance engineers—need to not only be able to adopt new scientific discoveries, but also to be innovators, entrepreneurs, integrators, stewards of the environment, agents of change and excellent communicators. They must be culturally sensitive and socially responsible as well.

We must be conscious of the tough choices required to realize this bold vision and to recognize that it must include women and people of every background.

SYSTEM NOT KEEPING PACE

The engineering education system is not keeping pace with rapid societal shifts. While the world has changed faster than expected, engineering education reform has moved at a snail's pace. We risk falling further behind if we do not act.

Engineering education remains rooted firmly in the 20th century. We remain hunkered down in an educational model that's increasingly not fit for purpose. In our pursuit of technical excellence we have allowed the postsecondary engineering pedagogical model to become too narrow and too unresponsive to the needs of both students and employers.

This is not a message that is coming from within some kind of academic bubble. Last year, Google's Eric Schmidt spoke about the need to apply the lessons of the 19th century when the disciplines of engineering, science and art weren't rivals but were driving progress in unison.

"[The Victorian era] was a time when the same people wrote poetry and built bridges...Lewis Carroll didn't just write one of the classic fairy tales of all time. He was also a mathematics tutor at Oxford. James Clerk Maxwell was described by Einstein as among the best physicists since Newton—but was also a published poet," Schmidt told a conference in Edinburgh last year (MacTaggart).

Leaders in engineering education have a choice. They can make piecemeal changes toward a broader curriculum and hope it will be enough—the quiet life option. Or they can embrace a radical overhaul of engineering education.

As Rugaria et al. pointed out: "Although their content has changed in some ways and the students use calculators and computers instead of slide rules, many engineering classes in 1999 are taught in exactly the same way that engineering classes in 1959 were taught." Today's students use iPads and 3D printers, but we have not moved on—or nearly enough—from the 1959 model.

As educators, we must take risks and exercise our responsibility to make tough choices about how we approach education.

The Lassonde School of Engineering was created at York University to be the home of this renaissance. We call it Renaissance Engineering and we've trademarked the term. This sets the bar high and makes a statement about the scale of our commitment and our reputational investment. This is our response to the challenge of recrafting engineering education. While this has been talked about in symposiums for years, we want to make it happen.

The government of Ontario is supporting this vision with a \$50-million investment in a new facility to be built around the concept of Renaissance Engineering. This builds on a transformative gift of \$25 million from mining entrepreneur Pierre Lassonde, matched by an investment of \$25 million from York University. We are embarking on a campaign to raise a further \$150 million from the private sector to create a new engineering school with an overall investment of \$250 million.

NEW PRIORITIES

To implement our vision of renaissance engineers we are focusing on three initial priorities: admissions, curriculum content and curriculum delivery.

Admissions policies for engineering faculties unnecessarily shut out some of our most creative minds and narrow our talent pool. At the Lassonde School we plan to have applicants draft a statement or submit a video explaining why they want to join us. This will help us distinguish between the top applicants and give us the chance to consider those who may be just below the grade cut-off but have creative minds and the potential to flourish in the right environment.

We're not the first to take this step. Other Ontario universities have also committed to creating a more sophisticated admissions system for engineering courses while maintaining fair selection procedures.

If we are to credibly expand the talent pool to include more students with breadth and depth of talent, we must be prepared to take risks with our entry criteria. Reaching out to students with diverse demographic and academic profiles is essential. We must also invest time and resources in a process that is receptive—not resistant—to well-rounded applicants. In return, we must offer them an academic pathway that broadens rather than narrows their thirst for enquiry.

We must also recognize that drop-out rates in engineering are too high. In some cases, it's not that students are not cut out for engineering; it's just that they may not be cut out for the learning experience we offer them. Too often, we may be forcing a round plug into a square hole by imposing a one-size-fits-all model.

This brings us to the second element of our challenge: changing the curriculum to focus on interdisciplinary learning.

The Lassonde School is forming strategic academic partnerships with Osgoode Hall Law School and the Schulich School of Business at York to enable students to acquire excellent technical and scientific training while gaining sophisticated business skills and a deep knowledge of relevant legal subjects. This is not a case of adding in a few lectures, guest lectures or extra courses here and there. This must be and will be fully integrated into the curriculum.

Students at the Lassonde School will take business and law courses in their first year and continue to study these disciplines so that they have the option after graduating with an engineering degree to add a law or business degree with two years of additional study. As well, students will be exposed to transdisciplinary learning that reaches out beyond the confines of the campus to involve not just other faculties but also industry, government and the community.

SHIFTING CURRICULUM DELIVERY

Thirdly, there needs to be a radical shift in curriculum delivery. Many engineers may not look back fondly on the hours they spent in lecture halls hurriedly making notes as a professor engaged in a monologue at the front of the room. We cannot justify this teaching method on the basis of some kind of rite of passage unless we can prove it is the best and only way to impart knowledge.

The "classroom flip," as we call it, turns tradition on its head. Students will be able to choose when and how they view lectures and study materials—at home, in a café or in one of our specially designed workspaces in our new building. In this model, students will be familiar with the material before they come to class, where they will discuss the concepts they have learned, absorb ideas from each other, and engage with professors and industry mentors. This student-centric approach will be integrated into the design of our new building to optimize this new type of learning model, including a focus on breaking down barriers between students and professors to create a truly interactive environment.

This freedom involves a huge investment in students, who will have to take responsibility for their learning. The pursuit of knowledge will require a high degree of commitment from students. To become renaissance engineers, students will have to be entrepreneurial about their learning and career development.

We have been stranded at a crossroads in engineering education for too long, knowing that we need to change but being unable—and at times unwilling—to chart a different course. We can continue to talk about a new engineering education system or we can start the journey.

Qui audet adipiscitur. He (or she) who dares, wins. Ontario needs to be bold to win the future for engineering in our province.

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Dr. Kozinski has enjoyed a distinguished academic career in leading institutions in the USA, Europe, and Canada. He is an internationally-renowned higher education leader, research and entrepreneur, and one of the world's most widely acknowledged experts in sustainable energy systems and immune building concepts focused on anti-bioterrorism.

Currently, Dr. Kozinski serves as Founding Dean of the Lassonde School of Engineering at York University, one of the most ambitious projects in Canadian academia. This \$250 million initiative is creating a new Renaissance Engineering™ program, hiring 100 new faculty and staff, and expanding the student body by 1500.

For more information visit the website of Lassonde School of Engineering at York University.

News from ECCE and other organizations

Transatlantic Trade and Investment Partnership (TTIP) – ECCE Involvement

The Transatlantic Trade and Investment Partnership (TTIP) is a proposal for a free trade (agreement FTA) between the European Union and United States. On June 2013, EU member countries granted the European Commission a mandate to start negotiations with the US government to achieve this trade agreement. Since then, eleven negotiation rounds have been held so far. The latest one was held on 19 – 23 October, in Miami, Florida.

In January 2015 the President of the Colegio de Ingenieros de Caminos Canales y Puertos (CICCP), Mr. Juan Santamera, started a cooperation with ECCE President in order to bring up to the negotiations' table the professional engineering services issue. The European Council of Civil Engineers sent a letter to the EU Trade Commissioner Cecilia Malmström stating its interest in the continuance of such negotiations. In the response that we received from Ignacio Iruarizaga Díez (Acting Head of Unit for Trade in Services and Investment at the European Commission's Directorate-General for Trade) we were informed that good note of our interest to also include professional engineering services in the TTIP talks has been taken and the this message will be conveyed to the US counterparts. ECCE was also invited to participate in the TTIP stakeholders meetings and other relative events. During the 61st ECCE General Meeting in Naples, ECCE President met CICCP President Santamera and discussed about how to further proceed with their cooperation on this matter. It was decided that Mr. Jose Francisco Saez Rubio (from CICCP, Spain), ECCE ExBo Member, will be the responsible person from ECCE's side for the topic of TITTP negotiations.

Following this decision, ECCE attended the 10th Round of the TTIP negotiations that took place on 15th July 2015, in Brussels represented by Jose Francisco Saez

Rubio, and it was accepted as a stakeholder by the European Commission.

Attendance of ECCE to TTIP's 10th Negotiations Round



Such stakeholders' event was held in Brussels on the July 15th and was part of the previous events to the 10th Negotiations Round held from July 13 to 17.

The European Commission approved the attendance of the European Council of Civil Engineers and invited us to make a five minute presentation within the subgroup of public procurement for us to present the potential benefits of TTIP and identify our major concerns and how could they be addressed to TTIP's implementation.

After the presentation, we were contacted by representatives from both EU and US negotiation teams and were requested collaboration from ECCE to enhance TTIP's outcome for the civil engineering sector and we were requested a primer proposal in writing.

During our contacts, we ratified the ECCE's interest in the existence of an effective professional mobility framework due to the lack of civil engineering professionals both in Europe and the US and ECCE expressed its commitment open to collaborate in this or any other matters.

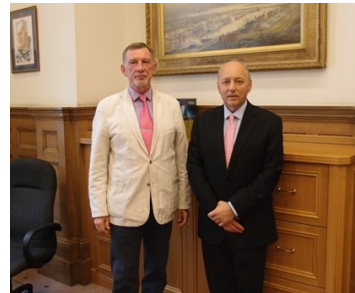
Please follow the link [here](#) in order to access ECCE's presentation to the Stakeholders' event.

ECCE President meets ICE Director General and Secretary Nick Baveystock

On 29th July 2015 the meeting between the President of the ECCE Wlodzimierz Szymczak and Director General and Secretary of the ICE Nick Baveystock took place in London.

It was a follow-up to direct contacts established in February 2015 between the leaders of the above-mentioned organizations.

During the meeting, both parties discussed a number of important issues concerning the ECCE's main present and future tasks, and how to convince ECCE Members to contribute to the current ECCE dealings, the situation on the European construction market, the approach to TTIP negotiations and many other issues. Also, the cooperation between European Organizations of Civil Engineers, building cooperation between the ECCE and the EU's authorities was discussed.



From left to right: ECCE President Wlodzimierz Szymczak and ICE Director General Nick Baveystock

The parties discussed possibilities for a stronger involvement of the ICE in the ECCE's activities.

Director General N. Baveystock confirmed his presence in ECCE's 62nd General Meeting in Prague in October.

It ought to be emphasized that the whole meeting was filled with the spirit of mutual understanding and all major doubts have been cleared out.

ECCE President meets the Federal Chamber of Engineers of Germany (VDE) leadership

On 4th of September 2015 in Berlin, in the Headquarter of The Federal Chamber of Engineers of Germany (VDE) an important meeting took place. The ECCE President Wlodzimierz Szymczak met the President of VDE Hans-Ulrich Kammeyer. In the meeting also

took part Prof. Zygmunt Meyer on behalf of ECCE and Director Thomas Noebel on behalf of VDE.



From left to right: Zygmunt Meyer, Włodzimierz Szymczak, VDE President Hans-Ulrich Kammeyer and VDE Director Thomas Noebel

The main topic of discussion was how to attract the representative of German civil engineers to join the ECCE as a Full Member, and who should it be.

President Szymczak started with short presentation of the ECCE for our German Partners. He emphasized his efforts directed on attracting new members to ECCE and developing activity of existing ones. The aim of that action - as he claimed - should be establishing ECCE as a strong platform gathering all European Civil Engineers. This platform should be respectable and valuable partner for European Union Authorities.

President Kammeyer shared the above mentioned approach of ECCE and explained specific law conditions which apply for engineering organizations in Germany. Both parties have agreed that the best candidate for the German Full Member in ECCE would be one of the strongest regional chambers of civil engineers. President Kammeyer offered VDE to make a research and start initial talks with the most promising candidates. Berlin's meeting was very fruitful and proved the worth of direct contacts between partners.

ECCE Immediate Past President became President of the International Association for Bridge and Structural Engineering (IABSE)

On 22nd – 25th September 2015, ECCE Immediate Past President Fernando Branco participated in the International Association for Bridge and Structural Engineering

(IABSE) Conference 2015 that took place in Geneva, Switzerland.

During the elections that were held Fernando Branco was elected IABSE President for the period 2016 – 2019.

"IABSE – The International Association for Bridge and Structural Engineering" was founded in 1929, in Zurich, being today the oldest international association of structural civil engineers, with members from



more than 100 countries. During the XX century it had among its members the great names of engineering, from all around the world that have been associated to the major constructions of our planet and contributed to the development of innovative technologies in civil engineering. The Association, besides the publication of technical documents from its working groups, presents every year, at the annual Congress, awards to distinctive engineering personalities of the world and the gives OSTRAC Prize to the most distinctive construction built in the world, what is considered as the "Nobel of Engineering".

ECCE President participates in the 12th General Assembly of the European Council of Engineers Chambers



The 12th ECEC General Assembly was held on 25th and 26th of September 2015, in Rome, Italy. It was significant meeting, because ECEC summed up their 3-year term of activity and elected new Executive Board.

ECCE was represented on that meeting by the President, Włodzim-

ierz Szymczak.

The main topics of the plenary session were as follow:

- ECEC Activities 2013-2015,
- Common Training Frameworks as a chance for European Chartered Engineers,
- ECEC declaration entitled: "Independence of engineering services saves people's money"
- Continual Professional Development (CPD) for Chartered Engineers: common standards for CPD in ECEC Members States,

Taking the opportunity of ECEC GA, President Szymczak had a few important, bilateral meetings there:

- with President Remec - on the necessity and possibilities of close cooperation between Civil Engineering Organizations in Europe taking as an example ECCE and ECEC,
- with President Kammeyer - on progress in realization of the agreement for Germany's membership to ECCE that was discussed in Berlin,
- with Klaus Thurriedl – on possible Austrian membership in ECCE,
- with Nikolay Kirjukhin, President of the Union of Scientific and Engineering Associations of Ukraine (SNIO) - on situation of Ukrainian Civil Engineers and possibilities of cooperation between them and ECCE,
- with Prof. Adil I. Alhadithi, Secretary General Federation of Arab Engineers and CNI Commissioner Nicola Monda - on the idea of Engineering Association of the Mediterranean Countries,

The newly elected ECEC Board is composed of:

President: Ctomir Remec

Vice-Presidents: Zygmunt Meyer, Hansjorg Letzner, Dragoslav Sumarac

Secretary General: Klaus Thurriedl

Treasurer: Gabor Szollossy

ECCE Immediate Past President participates in FEANI Conference and General Assembly

FEANI organized in Lisbon, on the 8th of October, associated to its General Assembly, an International Conference with the Theme: Lisbon



Strategy – Engineering the Future. Remembering Lisbon declaration from 2000, the goal, at that time, was to make EU in 2010 “the most competitive and dynamic knowledge-based economy in the world”. The conference presented various presentations with high tech technologies related to “Opto/Bio/Electronic devices”, “Engineering human tissues with marine biomaterials”, “The possibilities of the connected world an Innovation Leadership in Europe”.

This format with a conference before the GA was very interesting, with a high attendance, and followed the idea already in application at ECCE General Meetings, since the Lisbon ECCE Meeting.



On the 9th of October FEANI organized its GA, with the presidency of Prof. José Vieira from Ordem dos Engenheiros. After a remembering of members that recently passed away, including our great friend Vassilis Economopoulos, the agenda presented the following high lights:

- Activities of lobbying for the Mobility/professional recognition directive;
- Activities related to EUR-ACE and University Index;
- Activities of the European Monitoring Committee (EMC);
- Activities of the Common Training Framework (CTF), aiming to establish a training platform for engineers;
- Situation of the title of Eurling (already 30.000 titles);
- Situation of the Eng Card (152 cards in 2015 from 7 countries);

ECCE was represented at the Conference and at the General Assembly by Prof. Fernando Branco, ECCE Immediate Past President. The presidents of ECEC and of BEST were also present.

ECCE President participates in American Society of Civil Engineers Convention



From left to right: ASCE Executive Director Thomas W. Smith III, outgoing ASCE President Robert D. Stevens, ECCE President Włodzimierz Szymczak, ASCE President Mark Woodson

On 10th - 14th October 2015, ECCE President Włodzimierz Szymczak participated in the American Society of Civil Engineers 2015 Convention that took place in New York, USA.

ASCE it is really big enterprise now, founded in 1852, and counting today over 150.000 members in 177 countries.

ASCE 2015 Convention was also a big venture, attended by civil engineers from 35 countries.

Convention Agenda consisted of more than 70 lectures, concurrent sessions, closed meetings, official celebrations, plenary sessions, technical tours and cultural events (for more detailed information please see the [ASCE website](#) or the [ASCE Convention website](#)).

During the Convention President Szymczak held an official meeting with the President of ASCE Mark W. Woodson. The meeting was also attended by the outgoing ASCE President Robert D. Stevens and ASCE Executive Director Thomas W. Smith III. The topic was how to make cooperation between the two organizations alive and more dynamic.

ECCE President held also two other important meetings there. The first one was with delegation of Finnish Association of Civil Engineers RIL and the second one with

the President of Engineers Ireland. President Szymczak left New York impressed by the grand scale of the Convention and professionalism of its preparation and carrying out.

ECCE President visits Lassonde School of Engineering, York University, Toronto Canada



From left to right: ECCE President Włodzimierz Szymczak, Prof. Janusz Kozinski Founding Dean of Lassonde School of Engineering

ECCE President using the opportunity of his presence at the ASCE Convention in New York, he visited Lassonde School of Engineering of the York University, in Toronto, Canada where he had a meeting with Prof. Janusz Kozinski Founding Dean of this school.

The Lassonde School of Engineering is a professional engineering school of York University located in Toronto, Ontario, Canada. The school's stated goal is to create so-called "renaissance engineers" entrepreneurial engineers with a social conscience and a sense of global citizenship. Lassonde also incorporates crossover programming with York University's Schulich School of Business and Osgoode Hall Law School to study law, business and entrepreneurship alongside the engineering program.

The Lassonde School of Engineering was established in November 2011 with funding from founding donor Pierre Lassonde, the Government of Ontario and York University. Former students in Engi-

neering, Computer Science and Earth & Atmospheric Science programs from the Faculty of Science and Engineering formally joined the Lassonde School of Engineering on May 1, 2013. The School will start operating fully in March 2016.

ECCE President discussed with Prof. Kozinski regarding the specific and unique approach of education of the young engineers that this School provides and they established cooperation.

World Council of Civil Engineers 10th General Assembly and New WCCE President



The 10th General Assembly of the World Council of Civil Engineers (WCCE), a UN- Water partner, took place in Victoria Falls, from 15 - 19 September 2015, hosted by the Engineering Council of Zimbabwe on the occasion of UNESCO's African Engineering Week at the same venue. The attendance to WCCE activities by our African counterparts and WCCE delegates was very high and enriched WCCE's activities with their expertise.

Some of the highlights of the 10th ECCE WCCE General Assembly are as follows:

- Mexican Engineer Alfonso González took over the presidency from Spanish Engineer Tomás Sancho.
- Portuguese engineer Carlos Mineiro Aires was elected new President Elect for the period 2018-2021
- Costa Rican delegate was elected America's Continental representative to the WCCE Executive Committee
- Three new members joined WCCE: Ordem dos Engenheiros Cabo Verde, Latin American Society of Civil Engineering Stu-

dents and Council of Professional Associations of Spanish and Portuguese Speaking Countries.

- In this framework, Eng. Mustapha Shehu, FAOE president participated through a Guest Conference on 'Engineering Challenges to Africa' to illustrate how FAOE and its member organizations are working to foster student access to the engineering profession.

Updates on WCCE deliverables were presented:

- Updates on WCCE's two technical journals: Journal of Applied Water Engineering and Research and Revista Iberoamericana del Agua Further information can be consulted [here](#).
- A primer to the World Annual Civil Engineering Report 2014. Further information can be consulted [here](#).

Costa Rican Colegio de Ingenieros Civiles will host WCCE General Assembly in San José de Costa Rica on September 2015.

World Federation of Engineering Organizations General Assembly 2015



In the beginning of December WFEO held its General Assembly in Kyoto, Japan on the occasion of the World Engineering Conference and Convention 2015 that took place from 29th November until 2nd December 2015. In this Assembly, the Brazilian engineer, Jorge Spitalnik, took over the presidency for the next two years succeeding the Palestinian civil engineer, Marwan Abdel Hamid. In addition to this, elections to WFEO Executive Board were held with the following results.

Marlene Kanga, Past President of Engineers Australia has been elected President Elect of the World Federation of Engineering Organi-

zations - WFEO taking over the presidency for the period 2017-2019. On this same meeting, WCCE's Past President Tomás Sancho has been elected as a national representative to the executive Board of the World Federation of Engineering Organizations - WFEO representing Spanish Instituto de Ingeniería de España. In addition to this several other WCCE member representatives have been elected such as Italy's CNI representative, Nicola Monda.

On other grounds, during this Assembly WFEO presented his tribute to WCCE's founding President and WFEO's former president, José Medem Sanjuan, passed away in January 2015. [Tribute video to José Medem Sanjuan](#)

RESTA 2016 - The main annual event of construction business in the Baltic countries 23rd International Exhibition of Construction and Renovation

The 23rd International Exhibition of Construction and Renovation RESTA 2016 is the main annual event of construction business in the Baltic countries and is going to be held on 26 – 27 April 2016, in Vilnius, Lithuania. RESTA is the largest construction and renovation exhibition in the Baltic States, and it is aimed at construction industry professionals and end-users interested in construction and renovation.



Focus of the Exhibition – SMART AND DIGITAL

The highlights of the exhibition are digital construction, BIM and other progressive IT solutions in construction industry. Digital construction and Building Information Modelling (BIM) methodology represent inevitable revolution in the construction sector. Information availability, pace of life have changed

completely. Latest technologies are bringing changes to the principles of organizing construction: process starting with building design, construction, installation, and finishing with subsequent demolition will be faster, safer, more cost-effective and transparent. Application of BIM methods in construction will raise

the building process to significantly higher level in terms of quality and efficiency.

There will be a separate hall dedicated to digital construction at the exhibition, where exhibitors will introduce BIM and other smart solutions already in application in Lithuania, possibilities of new tech-

nologies in construction, good foreign practice at the exhibition stands and special BIM forum space.

For further information please visit the dedicated website [here](#).

NEWS FROM ECCE MEMBERS

ESTONIA

BALTIC MEETING 2015



Estonian and Lithuanian representatives in Baltic Meeting

Associations of Civil Engineers of Estonia (EEL), Latvia (LACE) and Lithuania (LSIS) are gathering once a year in order to hold Baltic meeting. The aim of this meeting is to discuss developments in building market, enhance and promote cooperation between civil engineers of three Baltic Countries. Although the meetings are held for a long time already, it is motivated by agreed targets. Those targets and activities are described in trilateral cooperation agreement, signed in March 2015. This year the Baltic meeting was organized by Estonian association and took place in September of 17th-18th in Tartu.

From the discussions turned out that our common problems are related to professional recognition of civil engineers. Also challenges what our countries are facing are related to changes in building legislations. In Estonia was taking to effect of new building legislation in 01.07.2015. Occupational qualifications of civil engineers are defined in this legislation on the basis of professional standards, which were initiated by EEL.

In Latvia renewal of certified engineers register is going on. LACE mentioned as a concern decreased share of topics regarding mechani-

cal engineering at Universities in civil engineering studies.

In Lithuania in autumn 2015 changes of building law will be sent to the parliament. Also separate laws for infrastructure and architecture are under development. In Lithuania actively are also worked with developing of BIM technology.

Dr Česlovas Ignatavičius, President of Lithuanian EPS Association, introduced modernization practice of buildings in Lithuania. Modernization in Lithuania will take place not only by buildings but group of buildings - quarters.



Latvian and Estonian representatives in Baltic Meeting

Kaupo Koitla, vice Chairman of EEL, introduced office building of the Statistics Estonia case, where main criteria of state procurement what were set to the competitors, were energy consumption and cost per square meter.

Next Baltic meeting will be organized by Lithuanian colleagues from LSIS in autumn 2016. Jointly with the meeting first joint seminar will be organized about professional recognition.

SBE16 Tallinn - Helsinki Conference

Estonian Association of Civil Engineers is closely cooperating also with Finnish Association of Civil

Engineers (RIL). Bilateral cooperation agreement between EEL and RIL was signed in January 2014.



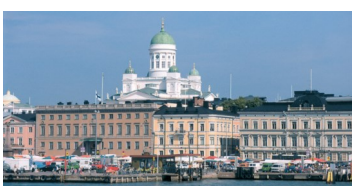
Old Town of Tallinn

As a cooperation outcome in 2016 jointly will be organized Sustainable Built Environment Conference - SBE16 Tallinn and Helsinki Conference. The main theme of conference is „Build Green and Renovate Deep“.

Sub-themes of the conference are:

- Investing in high performance
- How to measure green?
- Nearly zero energy buildings
- Deep, integrated renovation
- Energy aspects in land use planning

This event will take place in 5-7 October 2016. Conference meetings will be held in Estonia (Tallinn) and technical excursions will be organized in Finland (Helsinki). The distance between Tallinn and Helsinki is roughly 80 km and participants will be taken to site visits by boat. It would be an excellent opportunity to visit so called “Talsinki”



Helsinki

- by visionary named twin city Tallinn & Helsinki.

During the conference we offer to interested parties possibility to organize also own workshops. It could be targeted for interest group, the topic should fall within conference themes and it will be open for all conference participants. For advertising purposes an exhibition will be available.

Abstract submission deadline is February 1, 2016. Submission can be done via conference website. There can you find also more interesting information about this international event and also list of Scientific Committee members.

Welcome to SBE16 event!

<http://www.sbe2016.org/>

By Andres Piirsalu

President of Estonian Association of Civil Engineers

SLOVAKIA

Second ingREeS Workshop

Laid the Foundation for Energy Efficiency Trainings

Bratislava, November 26, 2015 – Goals, content and structure of training programmes in the area of energy efficiency and the use of renewables in buildings were discussed by ingREeS Project Partners at the second workshop on the units of learning outcomes on October 21, 2015 in Vienna.

Trainings are to be prepared for civil engineers, architects, site managers, site supervisors and other middle and senior level construction professionals within the ingREeS project financed by EU Horizon 2020 programme.

The modules of training programmes for individual construction professions or functions will include

thematic areas such as design principles of nearly zero energy buildings nZEB, technology of renewables in the design of buildings, efficient integrated planning with BIM, quality control in construction, project management, recycling and waste management, building physics and many others.

The aim of the Slovak Chamber of Civil Engineers, the lead project partner, is to include these trainings in the lifelong education of its members as well as other construction professionals even after the end of the project.

Based on the outcomes of this workshop ingREeS project moves to its next stage – the preparation of five training programmes. This stage will be coordinated by University of Natural Resources and Life Sciences Vienna in coopera-

tion with Technical University of Graz, Civil Engineering Faculty of Slovak Technical University and other project partners. Actual information on project activities can be found at www.ingrees.eu.

For further information contact the Slovak Chamber of Civil Engineers:

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ingREeS Project in Short:

Project title:	Setting up Qualification and Continuing Education and Training Scheme for Middle and Senior Level Professionals on Energy Efficiency and Use of Renewable Energy Sources in Buildings - ingREeS	
Project Partners (9):	Slovak Chamber of Civil Engineers – Lead Partner	(SK)
	Faculty of Civil Engineering of the Slovak University of Technology in Bratislava	(SK)
	Association of Construction Entrepreneurs of Slovakia	(SK)
	National Institute of Lifelong Learning	(SK)
	ViaEuropa Competence Centre, s.r.o.	(SK)
	Association of Building Entrepreneurs in the Czech Republic	(CZ)
	SEVEn - Energy Efficiency Center	(CZ)
	University of Natural Resources and Life Sciences Vienna	(AT)
Starting date:	March 1, 2015	
Duration:	36 months	
EU Programme:	HORIZON 2020 Research and Innovation Programme	
Managing Agency:	Executive Agency for Small and Medium-sized Enterprises (EASME)	

SLOVENIA



UWS UNIVERSITY OF THE WEST of SCOTLAND

BRE CENTRE FOR RESILIENCE

International Conference - MOVING BEYOND RISKS: Organizing for Resilience

16.09.2015 – 17.09.2015,

Bled, Slovenia

International Institute for Transdisciplinary Research on Critical Infrastructures (i-RESC) with the sponsorship of the President of the National Assembly Dr. Milan Brglez organized an international conference "Moving Beyond Risks: Organizing for Resilience", held on 16th and 17th September 2015 in Bled, Slovenia.

The co-organizers of the conference were also Building Research Establishment – Centre for Resilience, **Administration of the Republic of Slovenia for Civil Protection and Disaster Relief and Ministry of the Environment and Spatial Planning of the Republic of Slovenia** with the support of Slovenian Chamber of Engineers (IZS), Slovenian Committee of Electric Power Engineers CIGRÉ-CIRED and Slovenian Commission on Large Dams (SLOCOLD). The international conference which hosted experts from around the world - USA, Australia and Europe has attracted nearly 100 participants from 12 countries. It was a unique opportunity for organizations to connect with academic experts, policy makers and practitioners from various often-competing fields and perspectives (including High reliability organizing, Resilience engineering and Risk management) for developing holistic responses to growing resilience problems. Main goal was to engage with academic communities, policy-makers and key industrial sectors from around the world and to present state-of-the-art research findings and industry's best practices.

Moving beyond risks: Organizing for Resilience was about programmes, projects, studies and practices that are aimed at improving the capabilities of organiza-

tions, teams, networks and sectors:

- to sense the unexpected and unwanted earlier,
- to respond more effectively to critical events,
- to reduce the negative outcomes if critical events or situations unfold and
- to learn continuously from misinterpretations, miscommunications and misunderstanding.

The conference covered a large spectrum of topics and has served with a number of interesting lectures and discussions. Researchers presented the results of the latest research and best practices in the area of risk identification and crisis management, with the aim of achieving higher safety, reliability and efficiency of critical infrastructures and thus achieving higher resistance to natural and other disasters.

The participants focused on many infrastructural threats, such as floods, icing, earthquakes, heavy rainfall, fire, hazardous substances, and even infectious diseases that could spread through the transport systems. Several kinds of reactions were discussed, such as emergency management, risk management, resilience management, management of change, crisis communication, etc. Several dimensions of resilience were also discussed.

The conference highlighted some key further issues for organizations and professionals in the field. The need for deployment of more resilient planning was recognized, besides more resilient organizing (organizations can collectively prepare much better for the unexpected), more resilient methodologies (a resilient methodological approach can only be created by a smart combination of methodological approaches in resilience studies), and more of inter-stakeholder, interagency and public-private partnerships (PPP) cooperation.

On the basis of presented topics can be concluded that much more has to be done in the field of comprehensive critical infrastructure protection. Looking at the processes of identifying critical infrastructures and their protection, we can



observe only a limited application of holistic approaches. Future resilience studies also need to include more investigations about the role of information communications technology (ICT) which have been not discussed at the conference. Finally, a suggestion to SMART (Specific, Measurable, Agreed, Reliable and Timely) improvement of resilience and to increase awareness of the residual risk (unaddressed risk left by risk management processes) was given.

For more information please see the conference website at www.beyond-risks-conference.eu.

Slides from majority of the conference sessions are available [here](#).

Videos of the conference sessions are posted [here](#).

By Igor Hrast



MESSAGE FROM THE ECCE PRESIDENT FOR THE YEAR 2015

The year 2015 although it was supposed to be a year of Celebration for the European Council of Civil Engineers as it was the year of the 30th ECCE Anniversary, it was also a year of loss for ECCE family and it will be remembered as such. It was the year of loss of two ECCE Past Presidents, colleagues and great friends Jose Medem Sanjuan and Vassilis Economopoulos. It was a year of big changes for our organization, a year of big decisions and difficult calls for me as President and as ECCE also. But sometimes you have to take brave and not easy decisions in order to make a leap forward and this is what my vision is for the coming year 2016, that ECCE takes a leap forward.

May this Festive Season and the New Year bring to all of us personal happiness, professional success and strength and creativity in order to take our organization and our Civil Engineering Profession one step forward.

Warm Christmas Greetings from the European Council of Civil Engineers

Włodzimierz Szymczak
ECCE President



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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.