

Speech at the Conference in Athens, September 2018

Dear Hosts, The Organizers of this Conference,
Dear Colleagues Engineers,
Ladies and Gentlemen,

My name is Włodzimierz Szymczak, I am Acting President of The European Council of Civil Engineers.

It is a great honor for me that I have opportunity to perform here, in front of such a distinguished auditory.

I am pleased to inform you that the European Council of Civil Engineers has marked 2018 as the **European Year of Civil Engineers (2018 EYCE)**. Four years ago, the ECCE General Meeting in Warsaw first discussed the idea of having a European Year of Civil Engineers and last year it was agreed to designate 2018 as the European Year of Civil Engineers in combination with the 200th anniversary of the U.K. Institution of Civil Engineers.

2018 sees activities and initiatives organized by the ECCE member countries all around Europe to get people interested and involved in civil engineering. The opening event was held on 2 December 2017, in Nicosia, Cyprus where the Cyprus Association of Civil Engineers held its 25th General Assembly and celebration of its 25th Anniversary. The climax and first summarizing of the 2018 EYCE will take place in London, during the week of 22-26 October 2018, when the Global Engineering Congress will be held to celebrate the 200th Anniversary of the U.K. Institution of Civil Engineers (ICE) in combination with the 50th World Federation of Engineering Organizations (WFEO) Anniversary, the Triennial with the American Society of Civil Engineers (ASCE) and the Canadian Society of Civil Engineers (CSCE) and the 68th ECCE General Meeting.

This Conference is organized also as a part of 2018 European Year of Civil Engineers initiative.

What are the goals of the 2018 EYCE?

- To reinforce the fundamental role of civil engineers in society in improving the standard of human life.
- To make the case for the prestige of the civil engineering profession in the community of European countries.
- To stress the pivotal role that civil engineers will play in addressing the challenges that will face society in the future.

How are we going to achieve them?

- Wide dissemination of the 2018 EYCE proclamation
- Designated logo to denote 2018 as the European Year of Civil Engineers
- Organization of various types of events related to the civil engineering profession by our Member Countries across Europe,
- Designated standard presentation to be delivered during all EYCE events,
- Marketing of the initiative through press, media, our website and our journal,
- Free access to the two ECCE book editions "Civil Engineering Heritage in Europe" and "Footbridges – small is beautiful",
- Communication of our initiative to the European authorities,

Civil engineering belongs to the oldest domains of human activity – its history is as long as the history of civilization. The social role of civil engineering in the development of mankind has always been of fundamental importance because the standard of human life has been so highly dependent on its progress. This can be observed from the beginning of human history up to the present day. Civil engineering deals with all aspects of the built environment (either physical or natural) and

can be dated to the first time someone placed a roof over his or her head or laid a tree trunk across a river to make it easier to get across. And we can be confident that the role of civil engineering will continue to grow into the future.

Civil engineering as a domain of technological activity is a key element of the national and international economy.

Economic progress is impossible without adequately developed social and physical infrastructure, including, for example, buildings, water distribution networks, and service and transport infrastructure networks.

Contemporary achievements of civil engineering, thanks to the progress of building knowledge and science, are spectacular. This is exemplified by numerous tall buildings, dams, large bridge structures, water infrastructure, motorways, sport stadiums and halls, theater houses, etc., constructed in the last decades and strongly influencing urban and extra-urban areas and landscapes.

On the other hand, we should also note less spectacular but equally important achievements for social and economic reasons, such as residential buildings, smaller bridges, roads, industrial buildings, etc. The first field can be considered as extraordinary examples of civil engineering, illustrating its especially high level of achievement, while the second one can be considered as 'the work of the day' of civil engineers. Both of them are equally important.

The social, economic and cultural progress of every country is impossible without the contribution of civil engineers, based on their education, professional knowledge and experience.

And finally, it should be emphasized, the civil engineer is the profession of the highest public trust - and rightly so, fully deserved it, because he is ultimately responsible for the safe use of buildings and structures. This is a particularly important and often overlooked aspect of the social role of civil engineers.

We are about to listen to a few lectures which will be delivered by eminent Greek engineers. All of them will concern history, present day

and future of the civil engineering profession. I even don't dare to compete with them with my modest speech. But I would like to say a few words about responsibility – **responsibility for the future of our Earth, bearing on the shoulders of civil engineers.**

At the beginning of March 2016, in Madrid there were three important events that can safely be described as the World Summit of Civil Engineers:

- 5th Ibero-American Congress of Civil Engineers,
- 7th General Assembly of the Organization of Professional Engineers from Portuguese and Spanish-speaking countries,
- 63rd General Assembly of the European Council of Civil Engineers,

During this Summit The Madrid Declaration was solemnly signed by President of The European Council of Civil Engineers, along with Presidents of the other European and World engineering organizations.

The Madrid Declaration is one of the most important documents, which was created in recent years in the community of civil engineers (the second one is THE VISION FOR CIVIL ENGINEERING IN 2025 prepared by ASCE in 2009). A separate section of this document speaks of the responsibility of civil engineers to society for building a sustainable world, and welfare of its inhabitants. Especially in a situation where 7 out of 17 Strategic Goals of UN Agenda 2030 is deeply and directly linked to the activities of civil engineers. How big is this responsibility? Let me illustrate this for you on one example:

I mean carbon dioxide emission. (CO₂ EMISSION)

We will see a short, three-minutes-long film prepared by NASA, which shows one year of Earth life in aspect of CO₂ emission and its traveling in atmosphere.

Presentation of the NASA film: *A Year in the Life of Earth's CO₂*
(www.youtube.com/watch?v=x1SgmFa0r04)

CO₂ - the main component of greenhouse gases (over 90%), which are responsible for catastrophic climate change on Earth.

Human activities on a global scale, any kind of activity even in biological meaning of this word (with each breath, each man emits a certain amount of CO₂ into the atmosphere), is the reason of emission to the earth's atmosphere CO₂ in the amount of 29-35 billion tonnes per year (figures depending on sources of information). Given the current state of the population, it gives 5000 kg / person / year. Meanwhile, a long time ago scientists come to the common conclusion that the border of security with regard to CO₂ emissions is 1000 kg / person / year. Crossing this border we enter the road to disaster.

From where does it come this additional, man-made amount of CO₂?

It comes from combustion of natural fossil fuels.

What for we burn this natural fossil fuels?

Because in this process we obtain **The Energy - the goods of crucial meaning for Humanity.**

More than half of the energy consumed in the European Union goes to the heating / cooling of buildings - generally to create and maintain thermal comfort in rooms used by man.

75% of the energy used for heating / cooling of buildings **comes from natural fossil fuels.**

So the problem of carbon dioxide emissions is essentially a problem of energy - sources of its origin, demand for it and the effectiveness of its usage. And this is domain of civil engineering activity and responsibility.

Thank you for your attention.

Włodzimierz Szymczak

Acting President of The European Council of Civil Engineers

