



To:
WFEO Members

Our sign: 300/2012/VOD-ČR
Date: 9.1.2012

Subject: Invitation Letter:
World Engineering Forum 2012: "Sustainable Construction for People"
WFEO Executive Council and Committee Meetings
Grand Hotel Union, Ljubljana, Slovenia, 17 to 21 September 2012

Dear Sir or Madam,

In approximately 8 months' time – from 17 to 21 September 2012 – the World Engineering Forum 2012 (WEF 2012): »Sustainable Construction for People« will be taking place in Ljubljana, Slovenia (<http://www.wef2012.si/>).

It will be accompanied by:

- the annual meeting of the World Federation of Engineering Organisations (WFEO) Executive Council;
- meetings of WFEO Committees; and
- a combined meeting of seven major engineering organisations: the World Federation of Engineering Organisations (WFEO), the European Council of Engineers Chambers (ECEC), the European Council of Civil Engineers (ECCE), the European Federation of Engineering Consultancy Associations (EFCA), the European Construction Industry Federation (FIEC), the European Federation of National Engineering Associations (FEANI) and the European Society for Engineering Education (SEFI).

A few hundred participants, engineers, politicians, researchers, scientists and entrepreneurs from all over the world will present and exchange their opinions about sustainable construction, a major challenge of the 21st century. Special attention will be paid to the following topics (*for the key points of the topics please see the enclosure to this letter*):

- Energy Efficient Buildings
- Renewable Energy Systems
- Environmentally Friendly Construction
- Living and Working Comfort
- Sustainable Architecture Inspired by Nature
- Green Building
- Recycling, reusing, rethinking
- Advanced technologies in the construction industry with BIM

There is no doubt that the forum will be a memorable and valuable experience from professional and business points of view.

The Organising Committee is currently working on a detailed programme for the forum, engaging renowned and highly respected speakers from across the world. In order to complete the list of speakers, we have just issued a Call for Speakers (*please see the attachment to this email*).

There will be a particular focus on young engineers for whom a special programme will be prepared together with the WFEO Young Engineers/Future Leaders Committee.

A resolution of the forum will be prepared as a summary of the closing statements of all sections of the forum. It will be issued at the closing ceremony of the forum.

Both the WEF 2012 itself and Slovenia as a whole offer visitors the opportunity to enjoy a host of interesting sightseeing and excursions, including a walking tour of the old town of Ljubljana, a visit to Postojna Cave (under UNESCO protection) and Predjama Castle, a trip to the famous Lake Bled and medieval Radovljica, a two-day trip to Venice and a two-day trip to Prekmurje.

An airport shuttle from Venice airport to Ljubljana (and back) and from Ljubljana airport to Ljubljana (and back) will be organised for participants of the forum and WFEO meetings.

For more information, please go to <http://www.wef2012.si/> (updated weekly from 1 February 2012 on).

Take advantage of these opportunities and attend the WEF 2012!

The WEF 2012 Organising Committee invites WFEO members to the forum and accompanying WFEO meetings.

A WFEO Executive Council meeting will be held on Thursday 20 September 2012, while WFEO Committee Meetings will be held on Sunday 16 September 2012 and Monday 17 September 2012.

Please register from 1 February 2012 on, using the forum's official website: <http://www.wef2012.si/>.

Registration via the official website enables you to register for the forum, WFEO meetings, accompanying events, accommodation and airport shuttle.

The fee includes: all coffee breaks and lunches at the forum, a welcome cocktail on the evening of Monday 17 September 2012, an exhibition opening at the National and University Library on the evening of Tuesday 18 September 2012 along with a reception at Ljubljana Castle on the evening of Wednesday 19 September 2012. Please note that spaces for the exhibition opening at the National and University Library on the evening of Tuesday 18 September 2012 are limited and tickets will be allocated on a first-come, first-served basis.

The head of each WFEO national member delegation will not be required to pay the forum attendance fee.

The gala dinner on the evening of Thursday 20 September 2012 is free for WFEO members and their partners.

Should you have to obtain an entry visa we will, upon request, for that purpose provide each person registering with a confirmation in addition to this invitation letter.

Should you have any questions, please do not hesitate to contact:

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The Organising Committee would like to take this opportunity to wish you a pleasant journey and looks forward to welcoming you in Ljubljana.

We would greatly appreciate all your efforts to encourage as many engineers and other interested people as possible to attend the WEF 2012. We thank you in advance.

Yours faithfully,

mag. Barbara Škraba Flis
Secretary General



mag. Črtomir Remec
President





TOPICS of the lectures:

- Energy Efficient Buildings
- Renewable Energy Systems
- Environmentally Friendly Construction
- Living and Working Comfort
- Sustainable Architecture Inspired by Nature
- Green Building
- Recycling, reusing, rethinking
- Advanced technologies in the construction industry with BIM

KEY POINTS OF THE TOPICS:

Energy Efficient Buildings

The environmental crisis poses new challenges to the building and construction industry. It is “responsible” for one-third of global carbon emissions and is the least-cost carbon mitigation opportunity. It is estimated that buildings consume 30% to 40% of global energy and in some countries like the United Kingdom even over 50% of energy use. Reducing these numbers is a real challenge that calls for an urgent and quick response. We must immediately start building nothing but energy efficient buildings! Yet are we going to build nearly carbon neutral buildings or even carbon neutral ones? What about carbon negative buildings? How will we refurbish the existing building stock, especially when we consider that most of it is completely inadequate for modern standards?

Renewable Energy Systems

We have already exploited most non-renewable energy sources, yet our needs continue to rise since the human population keeps growing, the same as our living standards. Renewables are our sole choice, whereas the earth, sun, wind together with the power of the oceans and rivers are available everywhere and all we have to do is to cut our consumption and, on the other side, reduce the losses that occur in networks and buildings. This is the only feasible solution to keep our lifestyles at the level we are used to – renewable energies are the sole choice we have. Which are the most efficient systems for renewable energy nowadays? Which criteria are applied when choosing a particular one? Which energy source holds the greatest potential? What are the projections for the future?

Environmentally Friendly Construction

The building sector consumes 3 billion tonnes of raw materials annually, roughly 40% to 50% of total world resource consumption. We are taking all of these materials out from our environment. When we exaggerate, the environment often responds with a disaster or catastrophe. How shall we control the amount of materials we take? How can we achieve the goal that every tree and natural habitat is simultaneously replaced by another? What is the potential of reusing materials from destroyed or defunct buildings?

Living and Working Comfort

With contemporary building we often forget that we build homes and offices for their users and their comfort. These buildings boast high-tech equipment and lots of automation throughout, yet the actual living comfort of their occupants is sometimes quite low: they may be too hot in summer or too cold in winter, indoor air often circulates too quickly, their quality is low etc. Such factors contribute to poor working and living conditions for their users, low productivity, all manner of diseases etc. How can we change this? How can we build, construct and design buildings that are friendly to their users, pleasant to live in and, in particular, healthy?

Sustainable Architecture Inspired by Nature

No, we are not speaking about houses shaped like flowers or trees. Nature's great inspiration is its perfect technical efficiency – processes like osmosis, photosynthesis etc. How do trees manage to bring water up to their branches without any energy? This is just one “miracle” nature has been performing faultlessly for thousands of years. When we seek out sustainable, low or no-energy solutions we can always go back to nature and learn from its millennia-long experience – all we need to do is open our eyes and ears...

Green building

We sometimes also call it "green construction" or "sustainable building", but it means any design work, irrespective of whether it is architectural or industrial, engineering or spatial, which uses a process that is environmentally responsible and resource-efficient throughout its life-cycle and in all stages – from siting to design, construction, operation, maintenance, renovation and demolition. The expression "green building" refers to a building designed to reduce the overall impact of the built environment on human health and the natural environment by efficiently using energy, water and other resources, protecting occupants' health and improving employee productivity and reducing waste, pollution and environmental degradation. This is a simple definition, allowing thousands of little innovations, all with the same goal: to protect our planet from scarcity of energy and resources and all catastrophes that global warming is bringing to us.

Recycling, reusing, rethinking

The building industry is the biggest producer of landfill waste: it contributes about one-half of it. The lack of raw materials, the high cost of leaving such waste in landfills and especially demands to conserve the environment, require us to think again about these problems. Do we really have to destroy buildings without thinking of how to reuse some parts of them? What is the amount of waste we can salvage from landfills? What savings can this bring to the cost of a final building?

Advanced technologies in the construction industry with BIM

The BIM (building information modelling) technology is introducing many revolutionary changes to the traditional work scheme and building site organisation. Besides rationalising processes which can cut building site costs by up to 20%, we are encountering some new challenges like the social side of work on a building site, teamwork etc. But this is not the end of revolutionary changes – completely new possibilities for planning and organising work and processes are offered by digital tablet computers like the iPad or Samsung Galaxy. Once regarded by experts as "unserious appliances", these small gadgets have demonstrated a wide range of features suitable for organising building work much more effectively and resolving questions much more quickly than before. What are the benefits of contemporary technologies? How much will they bring us by way of savings? Where are their limits, if any?