

# **European Council of Civil** Engineers

#### NEWSLETTER 4

DECEMBER 2013

Follow up actions on the communication on Sustainable Construction Thematic Group 1 report — Stimulating investment in building renovation, infrastructure and innovation



#### Thematic Group 1 (TG1) background, mandate and expectations

The EC Sustainable Construction Communication places particular emphasis on encouraging renovation activities and infrastructure maintenance, as well as on innovation in the construction sector. Specifically, several EU policy documents and legal acts provide a framework for improved energy performance of existing building stock; new guidelines for Trans-European Networks (TENs), as well as the Connecting Europe Facility, will help develop and finance infrastructure; and programmes such as the future framework programme for Research and Innovation "Horizon 2020", the programme for competitiveness and SMEs "COSME" and the Cohesion Policy all offer opportunities for innovation in the sector.

To help drive these activities in the sector. TG1 is mandated:

- To map sector needs and barriers to investment and financing in building renovation and infrastructure, as well as to the uptake of innovative approaches in the construction sector

> To make recommendations on how to proceed with concrete proposals and solutions within the context of EU and national legal acts and financial instruments

> In 2013, according to its

mandate, TG1 was expected in priority to:

- Follow up on the Commission report on financial support for energy efficiency in buildings, particularly by assessing the effectiveness of national instruments; identifying needs and criteria for better using existing financial facilities or for establishing new facilities; and developing ideas for supporting energy performance contracting for small construction projects.

 Provide guidance on using EU financial instruments for renovation and infrastructure maintenance

· Organize a conference on innovation in construction

 Review the transposition of the new EU Late Payment Directive

 Assess investments needed or planned in new jobs and/or ICT systems

#### Summary of discussions at TG1 meetings

#### **Building Renovation**

· Provide greater clarity on the scope and definition of renovation (in particular deep renovation) at EU level (e.g. common metrics to measure energy performance of buildings)

 Possibility of setting specific EU targets for energy efficiency improvements and renovation, distinguished by market segment concerned (housing, commercial and administrative buildings)

 The findings of the Commission report on Financial support for energy efficiency in buildings. Divergent situations across MS; limited information on effectiveness of different financial support

measures, at EU and national level; barriers to energy efficiency investments remain

- Cohesion Policy funds and funding energy efficiency in renovation: availability of funds for investment in energy efficiency and other sustainable energy actions (renewable energies, smart systems, etc.).

· Good practice regarding the combination of EU and national fiscal and financial instruments and for facilitating access to these instruments, as well as opportunities for involving private finance in energy efficiency projects

- Design and alignment of EU financial instruments, and development of insurance and financial guarantees, to support energy efficiency investments, particularly for smaller construction projects and projects by SMEs

· Key market failures impeding energy efficiency investments in buildings

- The role of split incentives in renovation

• EU and national regulation: National-level measures to implement and complement EU energy efficiency regulation, as well as the role of other nonenergy regulations (national or EU) in stimulating energy efficiency renovation

#### Infrastructure

Revised guidelines for the Trans-European Transport Networks (TEN-T). At the first TG meeting it was noted that the TEN-T guidelines were being revised, to address the fact that the TEN-T is not yet a comprehensive European network, but

## **FROM**:

- Cyprus
- France
- Greece
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#### **INSIDE THIS ISSUE:**

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- ECCE Standing Committee on Knowledge & Technology
- New from EU & 4 other Associations

**News from** ECCE Members

Upcoming 16 **ECCE Meet**ings and Conferences

Conferences & 16 **Events** 

Preannouncement: The 2nd European Engineers' Day will be held on 20th November 2014, at the Sofitel Brussels Europe Hotel in Brussels, organized by ECCE, ECEC and FE-ANI in cooperation with other Engineering Organizations.

rather remains today a patchwork of national networks, with crossborder connections sections missing, multimodal links weak and lack of interoperability in rules and systems. In the second TG meeting, the revised guidelines were presented, which will introduce a duallayer core and comprehensive network, will harmonize deadlines and will develop nine Core Network Corridors to be managed by dedicated coordinators.

 Financing of infrastructure and the Connecting Europe Facility (CEF) funding framework. The CEF was discussed at both TG meetings, with an overview of CEF provided at the first meeting, and updates on the CEF budget, project eligibility, co-funding rates and management of grants presented during the second meeting.

 Improvements in infrastructure monitoring and maintenance: the need for improved monitoring and maintenance techniques, particularly continuous monitoring, which facilitates maintenance decisions based on both current and historical information on asset deterioration.

#### Innovation

 Definition of innovation within the TG framework: innovation as a driver for the development of sustainable solutions in the construction sector. Innovation is also considered broadly, not just in technical terms (e.g. materials and systems), but also with respect to new practices and business models.

 Barriers to implementation of innovative practices: fragmented construction sector; stakeholders with divergent interests; cost issues with innovative solutions perceived as more expensive; difficulties with insurance for new technologies.

 Conference on Innovation in Construction: The upcoming conference was discussed at both meetings, with participant suggestions for the conference content solicited during the first meeting, and with an update on the conference content and format presented at the second meeting.

## 58th ECCE General Meeting and Conference "Water Management in Europe"

The 58th ECCE General Meeting was held on 25th - 26th October 2013, at the Cyprus Hilton Hotel, in Nicosia, Cyprus hosted by the Cyprus Council of Civil Engineers (CCCE). On Friday 25th October together with the 58th ECCE General Meeting, the 2nd ECCE Conference "Water Management in Europe" was co-organized by ECCE and CCCE with great success.



From left to right: Maria Karanasiou - ECCE General Secretary, Wlodzimierz Szymczak - ECCE Vice Pres./ Pres. Elect, Fernando Branco - ECCE President, Gorazd Humar - ECCE Immediate Past President, Nicos Neocleous - CCCE President

Main materials from the 58th ECCE General Meeting can be found at the following links:

- ECCE President's introduction
- ECCE brief activity report June 2013 October 2013
- ECCE President "Rehabilitation & Energy Efficiency"

Main materials from the 58th ECCE General Meeting Standing Committee Sessions can be found at the following links:



58th ECCE General Assembly and Conference "Water Management in Europe", Cyprus Hilton Hotel, Nicosia, Cyprus

- Knowledge & Technology
- Development & Business Environment
- Education & Training
- Environment & Sustainability
- Associate Membership
- Task Force Civil Engineering Heritage

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All the materials from the Conference "Water Management in Europe" can be found on ECCE website.

**Note:** The Chairman of the Standing Committee on Development & Business Environment, Mr. Karlheinz Zachmann, announced his retirement during the 58th ECCE General Meeting in Cyprus. ECCE would like to thank him for his work, devotion and commitment all these years.

Group photo of the 58th ECCE GAM, Nicosia, Cyprus

## ECCE STANDING COMMITTEES

#### **KNOWLEDGE & TECHNOLOGY**



#### **Ruben Paul Borg**

Chairman, ECCE European Council of Civil Engineers - Knowledge and Technology

The ECCE (European Council of Civil Engineers) Knowledge and Technology Standing Committee has been active over the past years, on information and knowledge transfer in Civil Engineering. The Knowledge and Technology Standing Committee has focused in particular on specific important areas in Civil Engineering namely; collecting and distributing Knowledge on relevant themes including Near Zero Energy Buildings and Life Cycle in Buildings and Civil Engineering. The Committee was led by Professor Asko Sarja, Research Professor of Building Technology in Structural Engineering at the Technical Research Centre of Finland (VTT) with myself as the Vice Chairman of the Committee.

After many years of important service to ECCE, Professor Sarja stepped down from the Chairmanship of the Committee during the 57th ECCE General Assembly in Lisbon, Portugal during May 2013. Professor Sarja nominated me, for the post of the new Chairman of the Committee. I was elected by the Executive Board of ECCE as the new Chairman during the same General Assembly in Lisbon.

After the General Assembly in Lisbon, a plan of action was prepared by the undersigned and presented to all ECCE members, in view of proposing a strategy for action. The aim of the new strategy is to build on the strong points and activities of the committee during the past years, whilst proposing the new initiatives intended to drive the Standing Committee forward during the coming years. The proposed strategy is intended to address the activities of the Standing Committee by focusing on the effective organization and actions of the group by targeting well defined deliverables attainable within reasonable timeframes with reasonable resources. The programme was intended to set the rhythm for concrete action through a holistic strategy for the future development of the Standing Committee within ECCE.

To attain these aims, the programme is based on the following basic principles:

- 1. Information: Knowledge & Technology.
- 2. Communication & Knowledge Transfer.
- 3. Management & Organization.

The ECCE National Delegates representing the National Civil Engineering Chambers in the European States, responded positively to the Strategy proposal which was developed and then presented at the 58th ECCE General Assembly organized during October 2013 in Nicosia, Cyprus.

## Information: Knowledge and Technology

The standing Committee launched a Europe wide survey to monitor the important developments in Civil Engineering in Europe. In particular "Principles of the Action Plan: Information Knowledge & Technology, Communication & Knowledge Transfer, Management & Organization"

the survey aims at assessing the development of Civil Engineering with a five year perspective, therefore identifying priority areas for the coming years. The initial feedback from the different European countries participating provided valuable information on the trends in the profession, useful for industry, research and education institutions. The trends analysis allows for an assessment of both Industrial trends, Research Initiatives and Educational programme development in different European States. The Analysis of Trends also serves as an important reference point for different stakeholders including Civil Engineering Associations, Education Institutions and the Construction Industry itself. The outcome of the Analysis of trends shall be published regularly by ECCE and diffused in Europe.

The outcome of the first stage of the survey was presented at the General Assembly. It was agreed that the survey shall be developed further and established as an ongoing Europe wide continuous initiative. The ECCE Civil Engineering Survey is planned to become a regular and continuous effort to enable a continued long term assessment of the changing trends and emerging priority areas in Civil Engineering.

## Communication and Knowledge Transfer

A Basic Communication Platform intended to facilitate information and experience exchange is planned through the setting up of an ECCE Social Network. The ECCE Group created by the Knowledge and Technology Standing Committee is intended to promote Information and data exchange and sharing between civil engineers. The network shall help promote new developments and technology but also International Research Initiatives, Knowledge and Technology Education Networks. Furthermore such a group shall support participation in new Research Initiatives in Civil Engineering. The network allows for dissemination of information in particular from members active in academia and the profession through the exchange of information on their research, publications and projects and events.

#### **Management and Organization**

In order to successfully manage the organization of the Knowledge and Technology Standing Committee the setting up of Work Groups was proposed. The aim of the Work Groups is to address specific tasks, over a defined period of time with a clear deadline and deliverable.

In addition a new initiative was proposed and launched during the General Assembly addressing the more active involvement of experts and civil engineers nominated on work groups by the National Chambers in ECCE. In this way the Knowledge and Technology Standing Committee extends to and reaches more effectively the civil engineers members of the National organizations belonging to ECCE, and also experts and the European civil engineer in general.

Three work groups were launched to effectively tackle the different tasks of the Knowledge and Technology Standing Committee presented in this report:

Work Group 1: ECCE Civil Engi-

neering Survey: Analysis of Trends in Civil Engineering.

Work Group 2: ECCE Social Network.

**Work Group 3:** Life Cycle Engineering and Building Information Modelling.

Life Cycle Engineering and Building Information Modelling tackled in Work Group 3, was already identified as an emerging priority area in Civil Engineering through the survey assessment of trends carried out. It also builds on the important past initiatives of the Standing Committee on life time engineering and near zero energy buildings. The work group setup involves experts from various European countries and aims at putting together a collection of best practice examples in civil engineering.

Whilst the proposed programme is intended to set clear defined targets, the useful contribution, feedback and ideas of the ECCE members and the Standing Committee members shall be most welcome and encouraged. The collaboration of the Standing Committee members is considered as fundamental and essential for the clear definition and successful implementation of the programme.

#### Ruben Paul Borg, 28th November 2013. Malta

## **NEWS FROM EU & OTHER ASSOCIATIONS**

## ECF Breakfast Briefing in European Parliament

On 27th June 2013, the European Construction Forum (ECF) to which ECCE is a member organized a Breakfast Briefing regarding the follow up of the "Strategy for the sustainable competitiveness of the construction sector and its Enterprises" – COM (2012) 433 at the European Parliament. MEP Reinhard Butikofer participated in the event as EC rapporteur.. During



ECF Breakfast Briefing in European Parliament

this one hour meeting the <u>ECF</u> updated manifesto was presented

and the main topic of discussion was the Competitiveness of the Construction Sector. The event was attended by ECCE representative to ECF, Mr. Karlheinz Zachmann.

#### Workshop "High Energy Performance Buildings: Design and Evaluation methodologies"

In the frame of the European Sustainable Energy week, INIVE-

DYNASTEE organized the workshop "High Energy Performance Buildings: Design and Evaluation methodologies". The workshop was held on 24th - 26th June 2013, in Brussels

Topics at this event focused on the most important parts of building energy consumption:

· building energy needs and the auxiliary gains due to climate boundary conditions.

· aspects of efficiency of building energy installations, energy resources and technology

• consumer behavior and thermal dains.

· calculation methods, standards and regulation (CEN and national standards)

• optimization of energy use using ICT (intelligent environments, urban areas)

· design case studies and building simulation for nearly-zero energy buildings

The target audience for this workshop: decision-makers, researchers, applied mathematicians and statisticians, architects, building energy designers, standard developers and those interested in energy performance assessment of buildings.

Prof. Carsten Ahrens, Chairman of the ECCE Standing Committee on Environment & Sustainability attended this workshop.

#### EU strategy for the sustainable competitiveness of the construction sector and its enterprises

Thematic Group 1 – Stimulating investment in building renovation, infrastructure and innovation

On 12th September 2013, the 2nd Meeting of the Thematic Group 1 (TG1) was held in Brussels. ECCE participates in TG1 represented by its President Fernando Branco.

The Thematic Group is divided in three pillars:

- **Building Renovation**
- Trans European Networks (TENs) and Infrastructure Maintenance
- Innovation in Construction.

For more information about the discussions of TG1 please refer to the article of the front page of this issue.

Mr. Peltomäki. Deputy Director-General chaired the second meeting of DG Enterprise and Industry's High Level Forum on the competitiveness of the construction industry, on 29th November. The participants reviewed the activities and recommendations of each of the five Thematic Group. DG ENTR will now finalize the Industrial Policy Communication that should be published in January and some of these construction-based recommendations may be included in the report. This Communication will be discussed during the February Competitiveness Council and the Energy Council scheduled for March.

Please press here to read the official press release issued with regards to the HLF and which aims to disseminate the work carried out by Thematic Group participants as well as High Level Forum members.

#### Innovation in Construction



The Conference "Innovation in Construction" was organized on 21st October 2013, in Brussels.

The Conference brought together participants representing the Construction Industry and its professions, Member States and Commission services.

The Conference examined what innovative approaches already exist or are needed to help the construction industry to achieve greater sustainable competitiveness through new working practices in the renovation domain, in particular.

Its presentations and speeches should be seen in the context of the work being done by the High Level Strategic Forum and Thematic Groups created under the Action Plan of the Communication "Strategy for the sustainable competitiveness of the construction sector and its enterprises".

For further information about the

Conference and for accessing the Conference materials please press here.

#### New initiatives to help SMEs

In the second half of 2013, the **European Commission launched** a series of initiatives to help small and medium-sized enterprises (SMEs) perform better.

Here is a snapshot of some of the EC's ambitious new measures: Consultation on Green Action Plan for small enterprises, Access to Finance Days - helping to shape an SME-friendly financing market, Standard VAT return: Easing life for 20 million businesses, Making crowdfunding a sustainable source of finance and Top tech entrepreneurs present manifesto for startup success...

DG Enterprise & Industry Director General and EU SME Envoy Daniel Calleja said: "Today, only a few European SMEs extend their green business to foreign markets. Knowing that the EU makes up roughly one-third of the world market for environmental industries, this reveals a huge potential for SMEs to arow "

For further information on this topic please press here.

#### Entrepreneurship education key to sustainable economic upswing

Education is an essential element of entrepreneurship. Studies show that students who receive entrepreneurship education are not only more likely to be employed, but also more likely to start their own companies. With that in mind, the European Commission has proposed a series of actions that will help expose students to entrepreneurship and, as a result, help create jobs throughout Europe.

For further information on this subject please press here.

#### COSME to spur access to credit for small enterprises

The European Commission is dedicated to helping Europe's small and medium-sized enterprises (SMEs) overcome the financing problems currently plaguing Europe. This is the inspiration behind

""Innovation in Construction Conference" was held on 21st October

in Brussels"

a new programme called COSME (Competitiveness of Enterprises and SMEs), which will free up funding for SMEs and help small businesses - the backbone of Europe's economy - create goods, services and jobs. In an interview with E and I Magazine, Vice-President Antonio Tajani explains what the Commission hopes to achieve with COSME.

To read the interview press here.

#### World Council of Civil Engineers (WCCE) 8th General Assembly



have unanimously agreed to appoint Professor JOSÉ MEDEM SANJUAN as FOUNDING PRESI-DENT WORLD COUNCIL OF CIVIL ENGI-NEERS for its con-WCCE 8th

The World Council of Civil Engi-

neers held its 8th General Assem-

bly from 10-13 October in Santiago

de Cuba. UNAICC hosted WCCE's

8th General Assembly on the occa-

sion of an international workshop

on Tourism & City. The attendance

to WCCE activities by its Cuban

counterparts and WCCE delegates

was very high and enriched their

On the day of its 8th General As-

sembly, its member organizations

OF

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activities with their expertise.

tinuing commitment General in the creation of a Assembly world organization to represent civil engineering profes-



sionals on an equal basis and promote technology transfer contributing to the welfare of humankind.

The 9th WCCE General Assembly will be held in Lisbon, Portugal, hosted by Ordem dos Engenheiros in November 2014.

For further information on WCCE please visit the WCCE website.

WCCE President. Tomas Sancho awards Prof. Jose Medem Sanjuan

## **NEWS FROM ECCE MEMBERS**

### **CYPRUS**

#### The Information Center - Library «Stelios Ioannou», University of Cyprus, in Nicosia

The Information Center - Library "Stelios Ioannou", is designed by world-renowned French architect Jean Nouvel, who was inspired by the natural topography and colors of the landscape of the campus of the University of Cyprus, in Nicosia.



The new library is a very modern and functional building, which extends vertically into five storeys and occupies approximately a total area of 15,700m<sup>2</sup>. The library will not only contain a collection of more that 600.000 books, but it will also offer to the students and researchers a vast collection comprised of millions journal articles in electronic form, over 40,000 titles of e-books and more than 10 000 titles audiovisual material. Further to that, the library also has approximately 900 study sites all of which are equipped with modern technology.

The building is constructed in the northeast of the campus and it is very close to the buildings of the University Central Administration, the Social Activities and the Sports Centre.

The project is expected to be completed in 2014.



#### Limassol Marina

The Limassol Marina project is currently the largest infrastructure and real estate project in Cyprus, implemented by the Limassol Marina Ltd, and it is the first marina of this class in Cyprus.

The Limassol Marina is a Design,

Build, Finance, Operate and Transfer project carried out by private investors under the umbrella of the Ministry of Energy, Commerce, Industry and Tourism of the Republic of Cyprus.



The marina has a combined capacity for approximately 1000 vessels (at sea and in the shipyard), it is strategically located between the new and the old ports of Limassol. It was recently declared as an official port of entry of the Republic of Cyprus and is currently in use.

Further to that, the construction works are currently progressing with the construction of the residential areas (private villas and blocks of apartments), commercial areas comprised of shops, offices, restaurants and showrooms. The project also includes the construction of the buildings for a naval academy

and a large multi-storey car park.



The Renovation of Eleftheria Square



The project includes the renovation of Eleftheria Square and the surrounding areas and particularly the construction of a bridge-square, with primary target the bridging of the old and the modern city, the landscaping of the Trench, remedial works on the Venetial Walls, installations of elevators and lights, electromechanical works, installation of street furniture, construction of shops and public hygiene areas.

Additionally, the project includes the construction of a supportive two storey parking on the adjacent Omirou Avenue with access ramps from the street. In addition, staircases and elevators will connect the parking within the Venetian Walls Trench with the Solomou and Eleftheria Squares.

The Architectural Design is carried out by the globally famous architect Zaha Hadid, after winning a European architectural competition.

The project is co-financed by the European Regional Development Fund, the Republic of Cyprus and the Municipality of Nicosia and is expected to be completed by the end of 2014, beginning of 2015.

#### Civil Engineering Heritage – Apostle Andrew Monastery

Apostle Andrew (Apostolos Andreas) Monastery is situated to the north-easternmost point of the island. The monastery is dedicated to Saint Andrew and is a very important place for the Cypriot Orthodox Church. It is important to say that both communities in Cyprus, Greek Cypriots and Turkish Cypriots consider the monastery a holy place. Based on history Saint Andrew in his journey to the Holy Land struck the rocks and a spring gushed forth. Its water proved to heal sick people and the site became a pilgrimage place. To this day you can still collect the healing water.

At the eastern end of the monastery complex is the smaller and earlier St Andreas church, built during the Lusignan period in the 14th century. At the south end, there is a small yard surrounded by a tall stone wall for protection against the sea. West of the earlier church, at a higher elevation, is the later church, a large building, dating back to 1851 and is a typical example of 19th century Cypriot church architecture. The buildings of this period combine elements from local architectural traditions with neo-gothic, neo-renaissance and neo-classical aspects. Along the south side of the church, there is a broad gallery with five arches.

The monastery has fallen into a state of disrepair for many years. The necessary restoration works have been studied and relevant plans have been developed by a group of experts in the field of Architecture and Civil Engineering. In 2014 is expected to start restoration works of the crumbling monastery. The representatives of the Technical Committee for the Preservation of Cultural Heritage and the Director of the Development Programme of the United Nations signed a document that includes all the details for the implementation of the project. Another document was signed by the Church, with the UNDP and the Director of the UNDP in New York for funding. It has taken years to reach consensus on the restoration of the monastery, one of the most important religious sites to Greek Orthodox pilgrims.

The agreement between the Church of Cyprus and the United Nations (UNDP/PFF) for the restoration of the monastery provides completion of works in 5 years and cost more than 5 million euros. 2.5 million euros will be contributed by the Church of Cyprus, an additional 2.5 million euros by the foundation for the management of religious property and \$25,000 by the U.S. Agency for International Development, USAID. However, effort is attempted to find as many as possi-

#### ble contributors.

According to the planning, the works of restoration will be divided into several phases. The first phase of the project will focus on the core which is the church along with the cells. The cost at this phase is estimated to increase to 2.5 million euros and is expected to be completed in 36 months. The second phase will involve the medieval church. The third stage of the project will cover the works at the north side of the buildings and the fourth stage would involve the surroundings.

#### Enlargement / Enhancement Avenue "Tombs of the Kings"

The avenue "Tombs of the Kings" in Paphos is part of the perimeter ring road network of Paphos that according to the Local Plan of Paphos are of paramount importance. The avenue, which has a length of 3km, is also part of the road network that will connect the International Airport of Paphos to the Paphos Marina,



located at Potima area that will be constructed in the future. The avenues "Tombs of the Kings", as well as the new avenue to the airport are currently under construction.

The avenue "Tombs of the Kings" has a cross section 26,60m wide and it comprises of four lanes (2 in each direction of traffic) and a fifth lane wherever is required to allow right turning of vehicles. The two directions of traffic are separated by a continuous central divider suitably planted and on both sides of the avenue there are paved sidewalks and bicycles lane.

The project is funded 80% by the government of the Republic of Cyprus through the annual budget of the Town planning and Housing Department of Ministry of Interior, and 20% by the Municipal Authority.

The construction of the project started in April 2013 and according to the contract is expected to be completed in April 2015.

## FRANCE

#### IESF Civil Engineering Committee - Plenary meeting report

Chairman: Jean-François Coste

#### The Engineers 'Day in France

IESF took the initiative to organize on 18th March 2013, the Engineers 'Day for the first time in France. It was an opportunity for several events in French main Cities closely with the Industry week. A Conference was held at the Ministry of Finances on the theme: "Why setting up a regulatory body for the engineering profession?" which is a major issue since the engineer profession is not regulated nor protected in France.

The next Engineers 'Day is scheduled for 3rd April 2014 with a Conference in Paris on the following topical subject "Innovation and Entrepreneurship".

#### Guest lecture "The French High Speed Trains network: a 30 years' experience"

2013 Guest Lecturer is Gilles Cartier, SYSTRA Adviser to the CEO.

Gilles Cartier, Ingénieur des Ponts et Chaussées, spent most part of his career in the national French Railway Company (SNCF). He was especially Project Executive for the construction of the High Speed Line Lyon-Marseille.

Construction of the French network began in the late seventies (Paris-Lyon at 260 km/h speed in 1981) and, after opening to service of the East European HSL(Paris-Strasbourg at 320 km/h), its length is now 2.000 km, one of the longest in the word. SNCF succeed in the speed world record, 574,8 km/h on 3rd April 2007).

The lecture describes improvements gained and innovations developed during last 30 years of progress:

- new track structure (flexible support, concrete sleepers, continuous-welded rails, track on concrete slabs, etc...),
- new conception of infrastructures (bridges and tunnels) involving environment protection and taking into account strong winds, earthquakes,

#### etc.),

- wheel-rail interactions (resistance to efforts, contact wheel-rail contact),
- new catenary technology to collect electricity at high speed,
- improvement of security and safety (sophisticated equipment of the track, on board equipment, information in driver cabin, safety procedures, European interoperability, etc.),
- cost and funding studies (traffic prediction, costs and funding, private public partnership, etc.).

As a conclusion, Gilles mentions that even if the French networks reaches an appropriate development, mobility demand remains strong and its position in the heart of European transportation routes is to be taken into account: then complementary lines must be studied, technological performance of the system must be improved and service quality must be enhanced.

#### Working Group on "Civil Engineering Heritage"

The objective of this Working Group is to offer to Internet surfers structured information dealing with various kinds of civil engineering works.

The production of the Group is implemented on the IESF Web Server (In French,"Patrimoine du génie civil"). At this time, the relevant section of the website comprises 4 chapters:

- 250 years of Civil Engineering Heritage in France (2 chapters, one as a French version and another one as a English edition). This chapters include images and texts on around 300 works dealing with bridges, constructions, dams, canals, tunnels, structures and infrastructures in the fields of railways transport, air transport, maritime transport.
- Heritage of works built around the world by French contractors or designed by French engineers. This chapter (in

French language) comprises the following topics:

- Bridges built from 1820 to 1915
- Bridges built from 1918 to 1940 (in progress)
- Bridges built from 1945 to 2012 (finished, to be implemented)
- Off shore oil production concrete platforms
- Dams built from 1860 to 2004. Recently implemented, the relevant report shows evolution in dam construction techniques, illustrated by remarkable works, including several world record constructions.
- Railways. The report comprises files dealing with lines constructed from 1850 to around 1915 in various parts of the world: Europe, North Africa, Black Africa, Asia, and South America. The most recent file, recently implemented deals with construction of railways in western Africa: Senegal, Niger, Dahomey, Congo, Mauritanie, Gabon, Cameroun.



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Faidherbe Bridge. Saint Louis du Sénégal (1897)

Portal "France and Civil Engineering: heritage and Engineers". This portal introduces Civil Engineering Heritage introduced (at least in French language) in several Web sites: Ingénieurs et Scientifiques de France, Ecole des Ponts-Paris Tech (former Ecole Nationale des Ponts et Chaussées), Asco-TP, Structurae, Ifsttar (former Laboratoire Central des Ponts et Chaussées).

The Working group prepared the French contribution to the new ECCE Book "The wonderful world of footbridges".

This contribution comprises a se-

lection of 13 interesting footbridges constructed in France in regions. It represents a wide range of footbridges:

- bridges constructed in Paris as well as in regions,
- various period of construction are involved: from 1844 to 2011,
- various technologies of con-

### GREECE

6th International Presidents' Meeting of European Engineers' Organizations

11th October 2013, Office of the European Parliament, Athens, Greece



International Presidents' Meeting of European Engineers' Organizations was held on 11th Octo-

The

6th

ber 2013, at the Office of the European Parliament, in Athens, Greece hosted by the Technical Chamber of Greece (TCG) in the occasion of celebrating its 90th Anniversary.

The 6th President's Meeting was opened by the TCG President, Mr. Christos Spirtzis and an introductory speech regarding the Connecting Europe Facility (CEF) was given by the Greek MEP George Koumoutsakos. Mr. Vassilis Economopoulos, ECCE Past President and TCG SC Chairman on European Affairs, who was the moderator of the meeting on behalf of the TCG gave a presentation regarding the history of the Presidents' Meetings highlighting that the Presidents' Meeting is an annual landmark that promotes the cooperation between the International Engineering Organizations.

ECCE President Fernando Branco gave an interesting presentation regarding the Construction Sector today. He highlighted that the construction sector in Europe from 2008 onwards is currently stagnated at 2001 levels with huge implications for thousands of companies that "live" depending on construcstruction are represented: suspension footbridges, arcs, integrated beams,

 various construction materials are involved: iron, steel, high performance concrete, composite material.... and even wood.

A lot of pictures allow a funny technical travel through France! Note: the Working Group is composed of highly experienced engineers (often retired but still active!): Jean-Louis Bordes, Jean-Claude Charlot, Jean-François Coste, Dominique Perchet, Georges Pilot, Lucien Pliskin, Noël Richet, Bernard Raspaud, Jean-Paul Teyssandier.

Prepared by Georges Pilot.

tion and that the soaring unemployment has reached unprecedented levels in all countries, and especially in Greece and Spain, particularly among young people.

Fernando Branco stressed that with the exception of the EU and South America (the EU is getting even worse), construction around the world is increasing in recent years, giving rhythm to the overall growth in the countries according to official data. What do Brussels do about it?



- EUROPEAN COUNCIL OF CIVIL ENGINEERS

Presentations were also delivered on the subject Reforms of Public Procurement EU Legislation by Aris Chatzidakis, TCG SC Chairman on International Affairs, Klaus Thurriedl, ECEC Secretary General and Jan Bosschem, EFCA President. Another topic of discussion was the Engineering Education & Training that was presented by Mrs. Antonia Moropoulou, SEFI Vice President and Mr. Yannis Alavanos, IEKEM TEE President, Finally, the subject of Professional Recognition and Mobility - the New Directive on Professional Qualifications - the European Professional Card was also discussed and presented by Dirk Bochar, FEANI General Secretary, Crtomir Remec, ECEC President and Fernando Branco, ECCE President. In the end, the Athens Declaration on "100 years Engineering Regulated Profession Serving the Public Interest, the Safety and Quality, Building the

Growth and Welfare in Europe" was presented by Mr. Vassilis Economopoulos, ECCE Past President and TCG SC Chairman on European Affairs, on behalf of the TCG President.

The Participants in the 6th Presidents' Meeting were the following: TCG, ECCE, ECEC, EFCA, FEANI, SEFI, WCCE, WFEO, Austria, Bulgaria, Croatia, Cyprus, Czech Republic, FYROM, Germany, Hungary, Italy, Montenegro, Poland, Portugal, Russia, Serbia, Slovakia, Slovenia, United Kingdom (as observer).







## HUNGARY

"A Sustainable World is - a Water-Secure World"

The Budapest Water Summit Statement



#### 11 October 2013, Budapest, Hungary

The Budapest Water Summit was initiated at the United Nations Conference for Sustainable Development by the Hungarian Government with the principal objective to take stock of the various developments in preparing the waterrelated goal for the post-2015 development agenda. **The Budapest Water Summit Statement** reflects the outcomes of the thematic sessions and the deliberations of the civil society, science, youth and business forum that took place during the Summit.

1. Water is fundamental. Water has brought civilizations livelihood, sustenance and well-being. Water has been a central factor shaping both earth system history and human history. Therefore, water carries the collective memory of humanity. Water has been instrumental in our past development. It is equally the key to our future development, and safeguarding our life support on Earth, which is increasingly under pressure from global changes.

2. Water unites. It unites people among and across generations, nations and cultures and is a source of cooperation. However, its uneven temporal and spatial distribution worldwide, in addition to numerous challenges such as demographic and climatic changes, renders water management essential and critical as our entry point for sustainable development and poverty eradication. All basic planetary and ecosystem functions will be endangered if water is not governed properly, jeopardizing the human right to safe and clean drinking water and sanitation.

3. Water connects. Tapping the power of water for our era to meet

the water challenge requires new, innovative policy approaches, both within the water sector and in concert with other social and economic sectors, especially, health, food and energy. Human-centered development, based on human rights approaches, and environmental stewardship, including preserving the function of ecosystems and protecting biodiversity must reinforce any modern paradigm of water management.

4. Water and ecosystems. Safeguarding and rehabilitating ecosystems in 21st Century water resources development approaches will be an important shift towards sustainability. Unintended impacts to ecosystems in the name of water uses are contrary to the aspirations of a sustainable water future.



5. A dedicated water goal. To achieve the agreed upon Millennium Development Goal targets related to water and sanitation and to move towards the new set of Sustainable Development Goals, as well as to create new approaches to water management, the Budapest Water Summit, in consideration of the many ideas and discussions preceding to and over the course of the Summit preparation process, recommends the development of a dedicated and comprehensive Sustainable Development Goal on Water, a "Water-Secure World" while clearly addressing the inter-linkages to other Sustainable Development Goals.

This proposal is supported by additional outcome policy recommendations. This Goal would be accompanied by SMART(ER) – [Specific, Measurable, Attainable, Relevant, Time-bound (Evaluated, Reevaluated)] targets addressing the following main water-related issues:

a) Achieve universal access to safe drinking water and sanitation: Achieve universal access to sustainable and safe drinking water as well as gender responsive sanitation and hygiene services as part of human rights in all households, schools, health facilities, workplaces and emergency contexts including refugee camps;

b) Improve integrated and crosssectoral approaches to water resources management: Manage freshwater resources in an integrated way at the basin level, including in transboundary river basins and aquifers, so to maximize benefits across sectors in an equitable, efficient and sustainable way, foster food and energy security, protect ecosystems and enhance the services they provide, and increase water productivity;

c) Reduce pollution and increase collection, treatment

and re-use of water. Ban Ki-Protect human moon. health and the envi-General ronment from municipal, agricultural Secretarv and industrial water of the pollution, by reduc-United ing pollution, collect-**Nations** ing and treating wastewaters and

maximising their re-use; and

d) Increase resilience against the water-related impacts of global changes: Improve resilience to water-related disasters by enhancing preparedness against, and adaptation capabilities to, the impacts of on-going and future global changes such as growing water insecurity, climate change, population growth, land use change and the frequency of natural extreme hydrological events, through wise use and development of resilient water infrastructure

and appropriate non-structural measures and timely exchange of information. Reduce impact on access to water and sanitation of man-made or natural disasters through risk reduction programs.

6. **Capacity development for water**. Lessons of the water and sanitation related Millennium Development Goals show the critical need for a sound scientific underpinning, socio-economic, institutional, technical, financial and engineering capacity. To support the development of broader and more

inclusive Sustainable Development Goals provides an even greater challenge to sciences. In this context, the lack of trained professionals and delivery capacities is a recognized limitation toward attaining meaningful goals.

7. A robust intergovernmental

## ITALY

Abstract of the speech held by Ing. Massimo Mariani, at the Conference "The Bologna Process and the Engineering Education"

Bologna, 12 April 2013.

What was said during the meeting of yesterday was very important and gave me some interesting food for thought.

I will now refer to some topics our Consiglio Nazionale degli Ingegneri deems very important, in particular what concerns the professional development of young engineers.

A Decree was issued last August in Italy, providing that all engineers pursuing the profession have to continue their formation permanently, that is to say they have to update their professional formation during all their life-long.

A survey on 3,500 Italian engineers, of any age, gave the following results: about 60%, young and adult engineers, declared that they think it is correct to continue one's cultural formation during one's professional life. 15% was against, the remaining uncertain.

Why, then young and adult engineers differ in accepting cultural updating, even if they generally agree with it?

The difference is that young engineers want to get into the professional activity rapidly, while adult engineers want to remain updated with new procedures and regulations.

Some questions on young engineers: what does it mean to get into the profession rapidly? in what kind of Profession? What does "the profession of engineer" mean today?

In particular: is Engineering a job or is it still an "intellectual profession?" In other words: is it important to work and that is it, or it is important institutional mechanism. The critical nature of water for human populations and the planet, conditioning any future sustainable development agenda, requires a robust intergovernmental process to regularly monitor, review and assess progress of the implementation of the future water goal. It is recommended that appropriate institutional mechanisms are soon put in place to regularly review and assess progress in an integrated manner.

Prepared by Gabor Szollossy.

to pursue an intellectual profession from an ideological point of view? Is it important to give a job to engineering graduates or to have them live a life, where they may benefit from the peculiarity of being engineers?

Unfortunately, it seems that young engineers getting into the working community think today world and nature can be molded through computers.

University gives, in fact, a strongly analytical, highly scientific physicalmathematical imprinting. Hence, newly engineers cannot but propose themselves as computer analysts when entering the profession. But, computer analysis does no longer mean (as at the beginning of this new era governed by computers) to check project ideations, it became the project analysis. The great majority of young engineers, thus, risks to spend their lives on computers, not operatively implementing their analyses.

On the other hand, adult engineers have actual difficulties in working with strongly analytical and academic regulations. The result is that they recruit young engineers and have them work always, or almost always, as computer analysts. This mainly happens in large engineering companies.

Young people, professionally grown up with me on sites, have been making for years the same structural or electrical checking once employed once working in large companies or in other engineering design companies.

This is "work", not intellectual profession!

We have, therefore, to understand first if we want to help our young people in their needs, or if we want them to become engineers.

The other big problem we have is that engineers are redundant. This problem is strongly felt in Italy and in many European States.

The number of engineers graduating is very high. Yesterday, our colleague Duran told us that there is a difference between Northern and Southern Italy, and that engineers do not work any longer in the South. The solution seems to be to convince them to go abroad.

We have, therefore, to start to find a solution to this problem, with common rules throughout Europe.

What are the negative consequences which could result from the surplus of engineers?

This redundancy risks, unfortunately, to have the quality of the professional services and the central focus of the project decline. The redundancy penalizes ethics, that is to say the relations among professional colleagues, between engineers and society. In a world, where employment is lacking, it is difficult to have the provisions of the ethical-professional behavior complied with.

We have, therefore, to create an osmosis among our countries, accelerating the process, because this is a situation, which risks to capitulate, and which will not be solved in the immediate.

Manuele Massari, an Engineering student in Bologna, arose yesterday some very interesting points.

I wrote down some sentences dur-

ina his speech: "University is the place of the formation. University is the meeting point among professors and students. We hope that all over the world, not only in Italy, professors are able to educate students and to acquire passions through students, but, above all, to transfer passions to them".[...] "We, students,



them".[...] "We, students, do not ask only academber

ic lessons, we ask something more". [...] "We want something more than simple lessons. [...] We want to become men at University, to become able to face the challenges we will find when going out from these walls". These words made me think deeply.

I am a practicing engineer and I am an academic professor. I think, therefore, to know the mindset of the young graduates in engineering, and I know also that students express these great, fundamental needs because they are afraid of a

### POLAND

#### 12th General Meeting of the Polish Chamber of Civil Engineers (PIIB)

The 12th General Meeting of PIIB was convened on 28 and 29 June 2013. The meeting summed up the activities of the professional association of civil engineers in 2012, and the National Council was given a discharge. 174 representatives attended the meeting (90.16% in attendance).

In his keynote address, opening the 12th General Meeting of PIIB, Andrzej Roch Dobrucki. President of the Polish Chamber of Civil Engineers summarized the Chamber's activities in 2012, which marked the 10th anniversary of the association. The PIIB President emphasized that PIIB was particularly active in the area of legislation governing the construction industry and the professional association of civil engineers. He made a reference to the work on amendments to the Building Law Act and the draft Act on the facilitation of admission into certain regulated professions. Particular emphasis was placed on qualification improvement by members of the professional association, and on cooperation with universities of technology.

The meeting was attended by public officials, members of other professional associations as well as representatives of science and technology communities. In their addresses, guests in attendance underscored productive cooperation with the Polish Chamber of Civil Engineers and the important role of PIIB.

The official part of the meeting also included the presentation of public

difficult future, and this is the reason why they anchor themselves to ideological elements passed on by the tradition of our great engineering.

That is something Academicians have to deeply think over, young students ask us to put more passion when teaching to transfer them our passion. Something is lacking among professors and students. The relationship should be, at the same time, formative, emotional and scientific, a relationship, which shall not only be based on mathematics and physics sciences, but on engineering science in the meaning history recognizes to it.

Engineering science is a preparation to intellectual profession, to the professional reality, which shall create men in relation with society, with the working environment, with workers, clients and natural environment.

awards and distinctions to distinguished members of the Chamber.

Reports from national governing bodies on 2012 operations were subsequently presented, along with an overview of the Chamber's activities in the preceding year. The delegates approved the reports and gave a discharge to the PIIB National Council.

The second day of the 12th General Meeting of PIIB began with the decoration of distinguished professional association activists with PIIB honorary awards. Then, the 2014 budget and amendments to it were discussed.

Delegates to the 12th General Meeting of PIIB also adopted a resolution with the position of the Polish Chamber of Civil Engineers on the draft Act on the facilitation of admission into certain regulated professions of 13 June 2013. Members of the professional association are very concerned about the proposed amendments, and the amended engineer internship provisions may endanger the safety of buildings civil structures and the development process, and represent a threat to the life and health of users of those facilities. Delegates urged the chairman of the National Board of PIIB to present the Chamber's position to the Prime Minister, and Speakers of the Sejm and Senate of the Republic of Poland.

#### The Polish Chamber of Civil Engineers on deregulation plans.

The profession of a civil engineer in Poland has been considered a profession of public trust, the practice of which requires specific professional qualifications. The requirements which must be met for someone to practice the profession of a designer or site manager are established by the Building Law Act of 7 July 1994 (Journal of Laws of 2010, No 234, item 1624, as amended). These requirements include: specific educational track, engineer traineeship and passing an exam.

There are plans to change those admission requirements in a package of amendments to the above mentioned Act. The draft amendments significantly reduce the duration of the engineer internship, in particular for designers. The rules of the professional engineer license award are also to change. Rather than by passing the exam, the license will be granted under an agreement between the university and the professional association. The same procedure will apply to the engineer internship requirement waiver if a person completes student internship.

The draft package also envisages that the designer internship may be completed under the direction of a "master designer", that is a holder of the professional engineer license.

The Polish Chamber of Civil Engineers, actively participating in the work on the draft package, opposes those modifications, even though their intended purpose is to "facilitate admission into professions and overcome excessive barriers in this respect". The Chamber is primarily concerned about the proposal to shorten the duration of the engineer traineeship, and about the exam and engineer in-

#### ternship waiver.

The Chamber is of the opinion that the proposed legislation seeks to undermine the established practice of admitting new professionals, which results in a risk of reducing the qualification level of licensed engineers, which in consequence endangers the safety of civil structures they design and develop, and which we all use.

The nature, extent and effects of those risks are much more serious than mistakes in the practicing of other public trust professions which have an effect on individual persons, because the profession of a civil engineer addresses a particularly vital public interest.

#### **BIM for Poland**

Following the successful Second World Congress of Polish Engineers held in Warsaw in June 2013 (for more information see <u>www.szip.org.pl</u>), the Association of Polish Engineers in Great Britain (STP) is currently organizing a conference with the working title" BIM for Poland" (BIM - Building Information Modelling).

#### What is BIM?

Building Information Modelling (BIM) is a digital representation of physical and functional characteristics of the planned object. BIM is a shared knowledge resource for information about the object to form a sound basis for decisions during its life cycle, defined as existing from earliest conception to demolition (National BIM Standard - United States).

The concept of BIM made its debut in the USA in 1987.

Today, there are many questions about BIM. Even the very concept of BIM - whether it applies only to building construction, or covers a wider range of construction projects?

Is BIM the future? And if so, for how long?

We will endeavor to answer these and other during "BIM for Poland".

The conference will be held in London in March 2014, in cooperation with Polish Embassy in London.

The main goal of the conference is to present the benefits to construction projects of modern BIM system solutions and create an immediate impression upon the Polish authorities for the need to implement such an approach in Poland.

Experience to date has shown that the introduction of the most up-todate technology / BIM process to run the course of the construction projects must bring a number of benefits of long and short term, such as:

Reduction of financial risk exposure to investors whilst managing a construction project (fixed cost control at every stage of implementation).

Increasing of the health and safety on the construction site through appropriate work planning.

Reduction of construction costs during project lifecycles (e.g. detailing the project, conflict detection / collision phase of the project, live projects data availability etc.)

Lowering the cost of management and maintenance of buildings

Ability to improve spatial planning for large and small building construction projects

Aiding analysis of modernization of existing buildings

Managing carbon footprint offsets and CO2 emissions in the realization of building projects at macro and micro scales.

Predictability of the entire lifecycle of any/all elements of the building.

The argument for the need to implement BIM in Poland is the fact that the European Union recognized the activity in this area in other European countries and seeing the benefits of this process intends to implement this technology in the European Union.

This is evident from a recent article published in Construction Manager (www.construction-manager.co.uk) which talks about plans for the official implementation of BIM technology in the EU.

The European Union also stresses that one of the leading countries involved in the BIM is the UK, who have been pioneering development in this field.

How well advanced is the implementation of BIM actually is in the UK can be seen in an official press release from the government:

HM Government UK BIM Strategy on the construction sector (as published by the Cabinet office on 31 of May 2011), which the British government expressed its intention for compliance by 2016 for all projects carried out in force funded Collaborative 3D BIM (where all data, assets and all documents exist in electronic form).

The British Government, in collaboration with the industry began a 4year modernisation program, with the main objectives defined as: reduction of capital costs and 20% reduction of pollutants emitted as a result of the production of the construction sector.

Necessary for the implementation of these plans is to adopt information technology BIM (Building Information Modelling), the introduction of new technologies, processes and methods of cooperation that will enable new, more efficient ways of doing things, at all stages of the existence of the project (project life-cycle).

In the UK it is currently necessary to increase the awareness of the existence and requirements of the BIM programs, and to ensure that relevant information shall be addressed to each operator in the supply chain, the project at every stage is carried out to the highest standards, and feedback is transmitted back to the steering group (Task Group).

UK representatives involved in BIM insist that by the end of 2013, they aspire to be the BIM leaders in Europe. They add that given the long term projected BIM utilization potential up to 2050, they foresee immense benefit in early engagement and implementation with other EU member states.

The idea of the BIM process is quickly finding acceptance in Europe. BIM engagement in the wider world is advancing at an even



greater rate. If Poland does not follow the prevailing trends of its fellow European nations, it is likely to have negative consequences for the Polish construction market.

Large-scale construction investors and multinational developers have become accustomed to project development utilizing BIM. Lagging behind in BIM utilization will cause

### **SLOVENIA**

Dam engineering in Southeast and Middle Europe - Recent experience and future outlooks



International symposium Dam engineering in Southeast and Middle Europe - Recent experience and future outlooks took place in Ljubljana, Slovenia, on 16th October 2013 in organization of SLOCOLD (Slovenian Committee on Large Dams) and with support of Slovenian Chamber of Engineers, Section of Civil Engineers (MSG IZS). The purpose of the organization of the meeting was the working celebration of the 20th anniversary of the SLOCOLD. The dam experts from a wider region were gathered to upgrade their technical knowledge, communicadelay to all project stages as clients demand tender submissions, preconstruction and construction phase planning (including fit-out) to use BIM. BIM is a new standard. It is the new present, and it is here to stav.

Prepared: Piotr Dudek MEng EUR

tion, and mutual understanding. Among almost 100 delegates we were honored also by the presence of six National Committee Presidents (from Italy, Macedonia, Poland, Slovakia, Czech Republic and Croatia) and two Secretaries General (from Austria and Bosnia and Herzegovina).

The main topics of symposium were: A.) Performance of existing dams, B.) Dam design and analysis, C.) Utilization of hydro potential. 19 papers were presented, including the following keynote lectures:

- Safety reassessment of existing dams / G. Ruggeri / Italy
- Geophysical, numerical and statistical methods as a part of reviewing of the dam safety / E.Bednarova, M.Minarik, D.Grambličkova, P.Panenka / Slovakia
- Perspective of the dam engineering in the Czech Republic

   now and near future / L.Satrapa / Czech Republic

Ing CEng MICE & PIIB, Blackfriars Station & Bridge Construction (Manager), Chairman The Association of Polish Engineers in Great Britain – STP

- Dam engineering in Republic of Macedonia: recent practice and plans / L. Tančev, L. Petkovki, S. Mitovski / Republic of Macedonia
- Current conditions of large dams in Bosnia and Herzegovina / S. Kovačina, Đ.Malović / Bosnia and Herzegovina
- Swedish dams, dam safety and public safety around dams / U.Norstedt / Sweden
- Design, construction and operation of flood retention basins in Styria (Austria) / R.Hornich / Austria.

Presentations of all papers have been video recorded and can be viewed together with the proceedings in full on the SLOCOLD web page <u>www.slocold.si</u>. You are kindly invited to visit our site.

by Branko Zadnik

Chairman of MSG IZS

## UNITED KINGDOM

Institution of Civil Engineers (UK)

#### Geoff French, ICE President 2013 -14

Geoff French has been inaugurated as the 149th President of the Institution of Civil Engineers on Tuesday 5th November. In his Presidential Address at One Great George Street, Geoff focused on how civil engineers can ensure they are ready to meet the challenges of a fast-changing global community by following three key principles: integrity, communication and engagement.

He stressed that making the public more aware of the role that civil engineers play in shaping society – and how they improve lives– is crucial if we are to challenge and change perceptions of engineering. He added that the perception of what it means to be a civil engineer needed to be "updated and expanded" and the idea that engineers aren't creative "overturned". He called on the industry to unite in better communicating the role and importance of engineers to those outside of the profession – from school children right through to communities and policy makers.

You can watch the full Address here.

#### Shaping the World

The ICE proudly welcomed Her Royal Highness the Princess Royal to One Great George Street to launch Shaping the World, the new global initiative from the ICE on the 30<sup>th</sup> October 2013.

Her Royal Highness is Appeal Patron, and joined by distinguished guests, she listened to presentations from ICE President Professor Barry Clarke and Sir Michael Bear, the Shaping the World Appeal Chairman, before speaking herself about the importance of the initiative and the infrastructure challenges we face.

This is an ambitious, exciting and aspirational worldwide initiative that will see the development of pioneering projects that will have a global impact.

This is the most far reaching and aspirational initiative ever envisaged by the ICE and will see the development of pioneering, game

changing programmes that will have a global impact. Today, the world faces challenges the likes of which have never been seen before and the ICE, through Shaping the World, will take the initiative to lead the debate and bring together the greatest minds of this generation to inspire the greatest engineering minds of tomorrow to help find solutions to these global challenges. We will harness the creativity, energy, and dedication of today's and future civil engineers, business leaders, the Third Sector and Governments around the globe to work together and deliver change. For more information please visit the website at: http:// shapingtheworld.org.uk/

## National Infrastructure Commission

Labour Party leader Ed Balls has announced that a draft White Paper and legislation on a National Infrastructure Commission will be drawn up by the summer to build crossparty agreement for the plan. Commenting, Nick Baveystock, Institution of Civil Engineers (ICE) Director General, said:

"Effective delivery of nationally significant infrastructure needs

continuity of decision making, stability for investors and integrated, long term plans - these are almost inevitably at odds with short term political needs. To get the infrastructure we need, on time and to budget, we must get better at generating cross party consensus. ICE has long championed the concept of an independent infrastructure commission as a vehicle to achieving this and we therefore support Sir John's proposals."

Ed Balls made the announcement in a speech to the National House-Building Council. ICE called for an Independent Infrastructure Commission in its State of the Nation: transport report launched in June 2013: <u>http://www.ice.org.uk/</u> transportreportembargoed.

#### **High Speed Rail**

Commenting on the HS2 speech on 11 September 2013 by Transport Secretary Patrick McLoughlin MP, ICE Director General, Nick Baveystock, said:

'ICE believes HS2 remains the best option for greatly increasing rail capacity in the medium-long term, strengthening connectivity between city-regions and creating economic and regeneration opportunities. The project carries a stronger operational and business case as a full 'Y' shaped network - which improves further still with the planned connections to Glasgow and Edinburgh - and should be viewed on this basis.

As well as continuing to develop the business case, Government must better communicate that HS2 is a complement, not an alternative, to other transport investment and position it as an integral part of a national transport strategy, rather than a project developed in isolation. It must also take a strong lead in expelling the misunderstandings around risk management and contingency budgets which have caused concern around projected costs.

'We remain committed to working with Government to identify opportunities for efficiency savings within the project budget.'

It is possible to see a list of all upcoming ICE events, including online and recorded events which can be watched from round the world, here: <u>http://www.ice.org.uk/</u> Events-conferences.

Prepared by Melissa Zanocco.

### The Institute of German Engineers - ZDI

## New energy saving ordinance for buildings

#### dena and the Alliance for Building Energy Efficiency (geea) welcome the new legislation

The Federal Cabinet decided in favour of an amendment of the German Energy Saving Ordinance (EnEV). Following months of toing and froing, the Bundesrat finally approved the new ordinance - with additional terms - last week. Under the main amendment, all new buildings will be more energy efficient. As of 2016, the respective standards will be raised by 25 percent. Furthermore, buildings will be classified according to efficiency classes A+ to H, an easy-to-understand classification that most people know from household appliances.

The Deutsche Energie-Agentur GmbH (dena) – the German Energy Agency – and the "Allianz für Gebäude-Energie-Effizienz" (geea) – "Alliance for Building Energy Efficiency" are both pleased that the EnEV amendment will finally provide a central basis for increased energy efficiency in the building sector. "The EnEV is an important step on the way to achieving the targets specified in the Federal government's energy concept. We are pleased that many of geea's requests for more energy efficiency in new and old buildings have been incorporated," says Stephan Kohler, dena's Chief Executive and spokesman of geea.

Both dena and geea have been campaigning for a significant tightening of standards for new buildings. "Even today, over 50 percent of new buildings in Germany have a substantially higher energy efficiency standard than required under the current EnEV – because it makes economic sense. We welcome the tightening of standards as of 2016, this is an important development. Home owners will find that lower energy consumption pays off financially. Market players and building contractors can now plan for the new standards," explains Kohler.

dena and geea are also advocates of the classification of buildings according to energy efficiency classes. The classification system will help tenants and buyers assess prospective buildings. The energy class will be specified in the energy performance certificate and in property ads. Furthermore, the Bundesrat and geea have called for the Federal government to simplify its regulatory policies on energy efficiency in buildings by merging the EnEV and the Renewable Energy Heating Law (EEWarmeG). "The adoption of the EnEV was a first step towards more energy efficiency in buildings, now is the time to take further steps. Unless the overdue tax deduction of energyefficient refurbishments is finally introduced and subsidies increased and made permanent, the energy

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turnaround will not be successful," says Stephan Kohler. The Ordinance will now be announced in the Federal Law Gazette and is expected to enter into force in 2014, following a short transition

#### period.

The "Allianz für Gebäude-Energie-Effizienz" (geea) – "Alliance for Building Energy Efficiency" is a cross-sector consortium of leading representatives from industry, research, skilled crafts, planning, power supply and financing.

Further information is available online at <u>www.geea.info</u>.

## **ECCE MEETINGS & CONFERENCES**

The 59th ECCE General Meeting will be held in Tbilisi, Georgia, on Saturday 31st May 2014, hosted by the Georgian Society of Civil Engineers (GSCE).

The ECCE Meeting will be combined with the International Conference "Seismic Design and Rehabilitation of Buildings" that will be held on 29th - 30th May 2014. The International Conference will be co-organized by ECCE, GSCE and WCCE.

The programme will be announced soon.

## **CONFERENCES & EVENTS**

Congress on Industrial & Agricultural Canals A multidisciplinary approach 2-5 September 2014 Lleida, Catalonia, Spain



The University of Lleida Foundation, in conjunction with a number of other institutions, has planned the Congress on Industrial

and Agricultural Canals. The congress aims to provide a forum at which specialists from different countries will be able to exchange their experiences relating to different aspects of industrial and agricultural canals, including:

 History of canals and their impacts on society (power and supply of water)
 The different uses of canals and their impact on local landscapes, the environment and sustainability
 The management and improvement of canals to meet energy needs
 The importance of canals for regional economies and territorial development, and canals within the European Water Directives

This event will provide an opportunity to exchange experiences, learn from the past and discover different points of view. The resulting experiences and ideas should form the basis for new research and help to implement existing findings. The idea of adopting a multidisciplinary approach comes from an interest in bringing together different (historical, technological, social, economic, political, environmental, etc.) perceptions of industrial and agricultural canals used to generate power and/or supply water.

Deadline for submitting abstracts: January 31th 2014.

For more information visit the Conference website.

## Water for Today and Tomorrow, October 28-30, 2014, Tianjin, China



The Chinese Hydraulic Engineering Society (CHES) and the Canadian Society for Civil Engineering (CSCE) are jointly hosting an international conference on water resources to be held in Tianjin, China

(about a two hour commute from Beijing) during October 28-30, 2014. Tianjin is home to one of the most prestigious universities in China:

Tianjin University which will be a sponsor and contribute to local organization of the conference. There are various means of travel between Tianjin and Beijing including a bullet train that makes the trip in about 30 minutes.

The conference will be held in conjunction with the annual CHES national conference.

This conference typically attracts more than 200 delegates.

In addition to Tianjin University, the local hosts are the CHES Tianjin Section and the Hai River Water Conservancy Commission.

For more information visit the Conference website.

World Engineering Conference on Sustainable Infrastructure, 2nd - 7th November 2014,

Abuja-Nigeria.



The World Federation of Engineering Organizations) has granted approval to the Nigerian Society Engineers to host the World Engineering Conference on Sustainable Infrastructure with the theme: Development of Sustainable Infrastructure in Africa. It is scheduled to hold between 2nd-7th of November 2014 in Abuja.

For more information visit the WECSI 2014 website.

#### American Society of Civil Engineers

#### International Conference on Sustainable Infrastructure 2014

6th - 8th November 2014,,

Long Beach, California, USA

Conference Objectives

Infrastructure is an essential component of national competitiveness and social well-being. Designing and delivering infrastructure systems that truly contribute to sustainability throughout their service life is the theme of this conference.

The International Conference on Sustainable Infrastructure (ICSI) 2014 will focus on sustainability in the built environment, presenting relevant engineering research, demonstrations and applications that contribute to competitiveness and well-being. Presentations and panel discussions will cover sustainable infrastructure planning, financing, design, construction and operation: how practitioners are improving sustainable performance to meet the critical challenges of a changing operating environment.

For more information visit the ASCE website.

#### BUILDING TEST EXPO

The exhibition for construction product testing and certification

#### 17 - 19 June 2014, Brussels



Building Test Expo is the only international exhibition and technical conference dedicated to the latest technology, services, and equipment used in building product and materials testing and certification. The

event promotes increased innovation, quality, safety and sustainability in building materials through improved and advanced testing technologies and processes.

A full spectrum of attendees, from building materials and construction products manufacturers to major contractors and consultant engineers will meet with leading testing laboratories and testing equipment manufacturers in order to:

- Look at the latest testing technologies, processes and services from leading global technology suppliers
- Increase their awareness of important changes to European and international regulations, standards, and certifications
- Engage in crucial industry-wide discussion and debate towards increased uniformity in testing and certification
- Reaffirm the commercial and competitive benefits of effective building and building materials testing and certification

More Information.

## **ECCE Members**

BULGARIA Union of Civil Engineers in Bulgaria

CROATIA Croatian Chamber of Architects and Engineers

**CYPRUS** <u>Cyprus Council of Civil Engineers</u>

CZECH REPUBLIC Czech Institution of Structural & Civil Engineers

**ESTONIA** *Estonian Association of Civil Engineers* 

FINLAND Finnish Association of Civil Engineers

FRANCE National Council of Engineers and Scientists of France

GEORGIA Georgian Society of Civil Engineers

GREECE Association of Civil Engineers of Greece HUNGARY Hungarian Chamber of Engineers

IRELAND Engineers Ireland

ITALY Consiglio Nazionale degli Ingegneri

LATVIA Latvian Association of Civil Engineers

LITHUANIA Lithuanian Association of Civil Engineers MALTA Chamber of Architects and Civil Engineers MONTENECRO Engineers Chamber of Montenegro -Civil Engineers Chamber

POLAND Polish Chamber of Civil Engineers

PORTUGAL Order of Engineers ROMANIA

**ROMANIA** Union of Associations of Civil Engineers of Romania

ZD

RUSSIA Russian Society of Civil Engineering

SERBIA Serbian Chamber of Engineers

SLOVAK REPUBLIC Slovak Chamber of Civil Engineers

**SLOVENIA** <u>Slovenian Chamber of Engineers</u>

SPAIN Colegio de Ingenieros de Caminos, Canales y Puertos

TURKEY Turkish Chamber of Civil Engineers

UNITED KINGDOM Institution of Civil Engineers

## **ECCE** Associate Members





ational Technical University of Athens School of Civil Engineering



ZENTRALVERBAND DEUTSCHER INGENIEURE e.V. – ZDI



European Council of Civil Engineers

### European Council of Civil Engineers

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

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

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