

International Federation for Structural Concrete  
Fédération internationale du béton



# *fib* HU - General Assembly

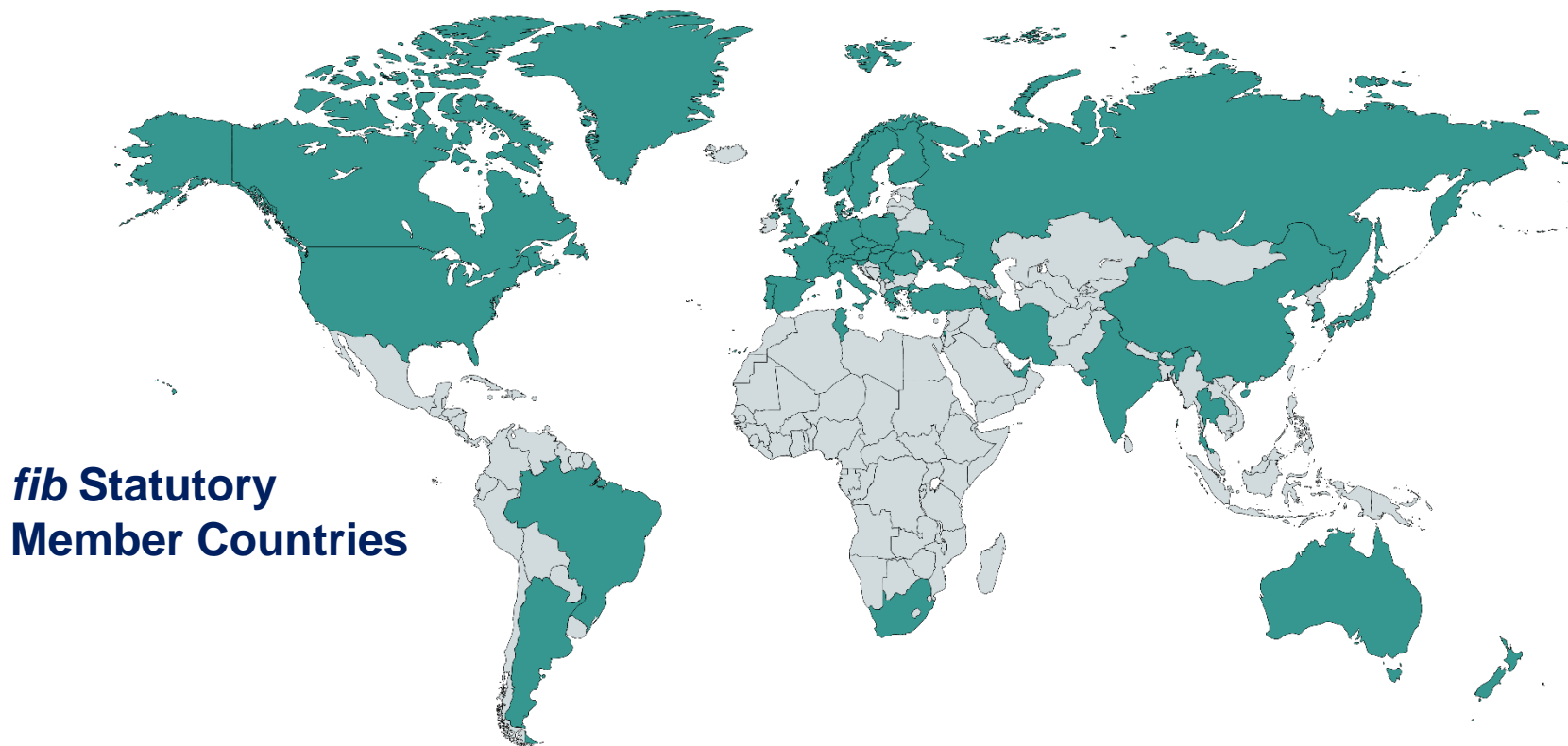


Photo ©Loic Gardiol

**Prof. Balázs L. György**  
*Honorary President*

2024. dec. 9., BME Budapest

# 2024 Statutory member countries



## *fib* Statutory Member Countries

### 43 *fib* Statutory Member Countries

Argentina – Australia – Austria – Belgium – Brazil – Canada – China – Cyprus – Czech Republic – Denmark – Finland – France – Germany – Greece – **Hungary** – **Iceland** – India – Indonesia – Iran – Israel – Italy – Japan – (Lebanon) – Luxembourg – Netherlands – New Zealand – Norway – Poland – Portugal – Romania – Russia – (Serbia) – Slovakia – Slovenia – South Africa – South Korea – Spain – Sweden – Switzerland – Thailand – Tunisia – Turkey – UAE – Ukraine – United Kingdom – United States

# Creation of the *fib*



In 2023: fib 25 and CEB-FIP 70

**Euro-International  
Committee for Concrete**  
Comité euro-internationale du béton  
1953



1998



**International Federation  
for Pre-stressing**  
Fédération internationale  
de la précontrainte  
1952



# Mission and Objectives of the *fib*

“To develop at an international level the study of scientific and practical matters capable of advancing the technical, economic, aesthetic and environmental performance of concrete construction.” *Statutes of the fib*

Stimulation of research and synthesis of findings

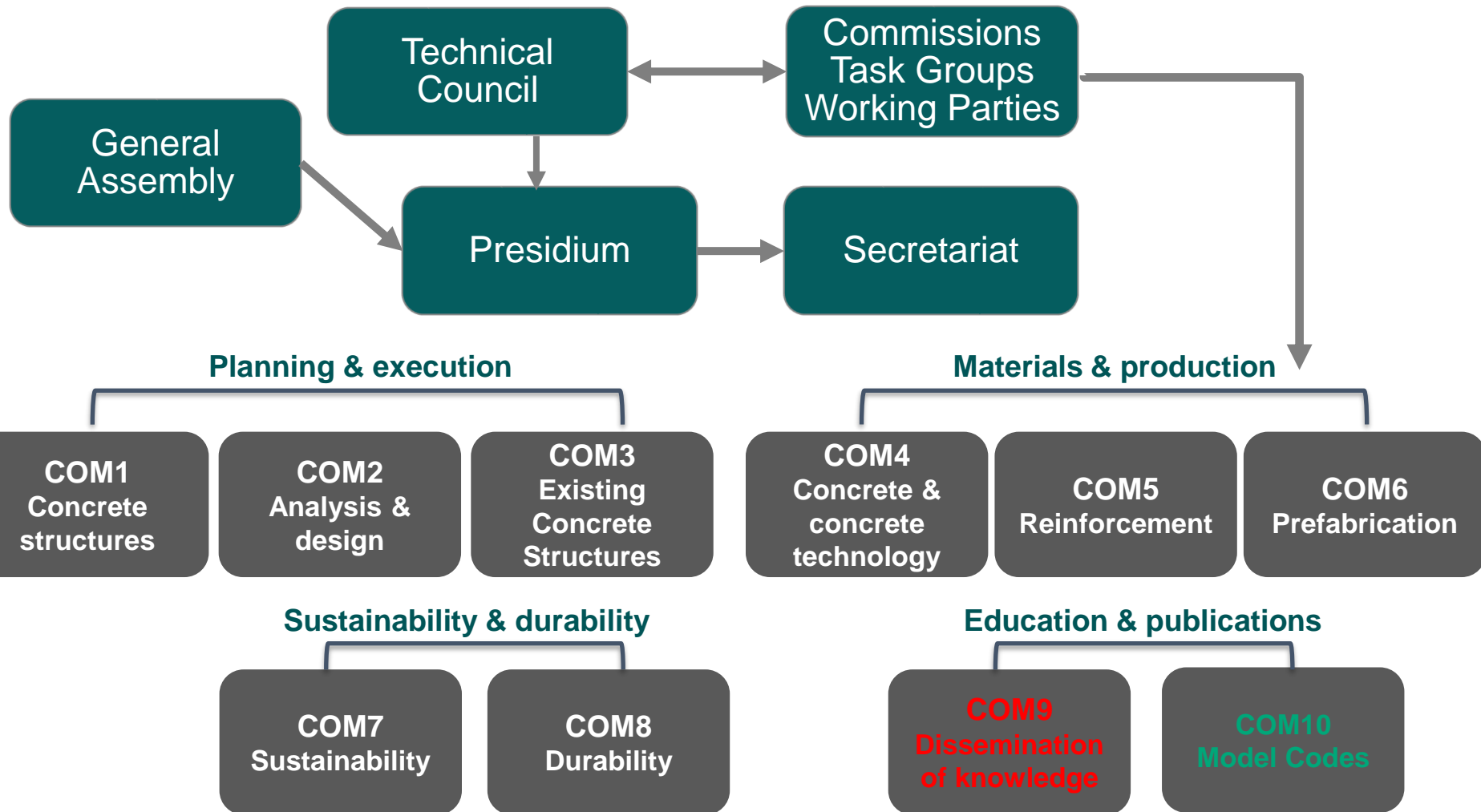
Transfer into design and construction practice

Dissemination by publications, conferences, etc.

Production of recommendations and codes

Dissemination of information to members

# The *fib*'s structure



# 2023-24 *fib* presidium members



**Stephen Foster**  
Australia

**President**



**Iria Doniak**  
Brazil

**Dep. President**



**Akio Kasuga**  
Japan  
**Immediate Past President**



**Agnieszka Bigaj**  
The Netherlands

**Sylvia Kessler**  
Germany

**Marco di Prisco**  
Italy



**Jean-Michel  
Torrenti**  
France

**Alberto Meda**  
Italy

**Larbi Sennour**  
USA



**David Fernández-  
Ordóñez**  
**Secr. General**



# *fib* 25<sup>th</sup> Anniversary



AGENDA 25<sup>th</sup> Anniversary *fib* meeting  
**Past, present and future of concrete structures**

Thursday 28 September 2023 9:00 - 17:50 EEST

Friday 29 September 2023 9:30 - 16:00 EEST

Technical Chamber of Greece. 23 Nearchou St, Chania, Greece  
[and Online: https://epfl.zoom.us/j/66045543489](https://epfl.zoom.us/j/66045543489)



International Federation for Structural Concrete  
Fédération internationale du béton



## Congress Oslo, Hotel Clarion Hub (13 June 2022)

Harald Müller, Steven Foster, Giuseppe Mancini, Akoi Kasuga, Srio Doinak, György L. Balázs, Tor-le Olsen, Hugo Corres







AGENDA 25<sup>th</sup> Anniversary *fib* meeting  
**Past, present and future of concrete structures**

Thursday 28 September 2023 9:00 - 17:50 EEST

Friday 29 September 2023 9:30 - 16:00 EEST



Technical Chamber of Commerce. 23 Nearchou St, Chania, Greece

# Thanks for coming

**Past Presidents:** Michel Virlogeux (MV), Joost Walraven (JW), Jim Forbes (JF), Giuseppe Mancini (GM), Hans-Rudolf Ganz (HRG), Michael Fardis (MF), György Balázs (GB), Gordon Clark (GC), Harald S. Müller (HSM), Hugo Corres (HC), Tor-Ole Olsen (TOO), Akio Kasuga (AK) (Immediate Past President).

**Presidium:** Stephen Foster (SF) (President, in the chair), Akio Kasuga (AK) (Immediate Past President), Agnieszka Bigaj (AB), Iria Doniak (ID) (Deputy President), Marco di Prisco (MdP), Steve Denton (SD), Sylvia Keßler (SK), Alberto Meda (AME), Larbi Sennour (LS), Alfred Strauss (AS), Jean-Michel Torrenti (JMT), Aurelio Muttoni (AM), David Fernández-Ordóñez (DFO) (Secretary General)

**Welcome:** Stephen Foster

Theodosis Tassios, CEB President 1983-1987 – Video message

Jan Moksnes, FIP President 1992-1996 – E-mail message

Balázs, G.L.: *Opening address. Messages Tassios and Moksness, 28-29 Sept 2023, Chania, Crete, Greece*

International Federation for Structural Concrete  
Fédération internationale du béton



## ***fib*25 Chania**

**The *fib*25 anniversary is an extraordinary chance**

- to review past and present activities of *fib* (CEB and FIP too) and**
- to develop plans future needs**

## Objectives of fib - Article 2 of Statutes

- (1) The objectives of the association are to develop at the international level the study of **scientific and practical matters** in order to **advance the technical, economic, aesthetic and environmental performance of concrete construction**.
- (1) These shall be achieved by:
  - (a) the **stimulation of research** and the **synthesis of the findings** from research and practice relating to various aspects of structural concrete;
  - (b) the **promotion** of development activities to aid in translating research findings and experience **into design and construction practice**;
  - (c) the **dissemination** of the results of research and development activities, and of experience, by way of **publications, guidance documents** and the organization of international **congresses and symposia**;
  - (d) the **publication of recommendations** for the design and construction of concrete structures, based upon appropriate and relevant **performance criteria** and **environmental considerations**, in both regional and international contexts;
  - (e) the informing of members on the latest developments in structural concrete through relevant **publications**.
- (3) These objectives shall be attained **in conjunction with** existing **international technical associations and international and regional standardization organizations**.

## *fib*25: past, present and future

**Extraordinary opportunity:**

to analyse our past and present and activities and

to synthetise the best way to procede in the future.

**The complex nature** of our activities for preliminary codification for new concrete structures as well as existing concrete structures requires

collaboration of **practitioners and academics**

from different fields of engineering and architecture.

Harmonisation of our activities is also important with other technical associations.

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# Presidents' message

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## **Future international body encompassing the activities of CEB and FIP**

### **A status report as at February 1996**

During 1995 considerable progress has been made in bringing FIP and CEB together to form one single international body. A Task Group has, since 1993, been discussing and preparing documents outlining why and how this should be achieved, and the FIP Council and the CEB General Assembly both passed resolutions in 1995 endorsing a full merger of the two organisations.

In accordance with these resolutions an Implementation Group was established in October 1995 to prepare detailed proposals which can be put to the governing bodies of FIP and CEB for a final decision. The Implementation Group consists of R. Rowe, G. Macchi and R. Favre from CEB and J. Moksnes, M. Virlogeux and R. Walther from FIP.

The Group met in Lausanne and London in November 1995 and again in Lausanne in January 1996. Future meetings are planned in Lausanne late January, in Amsterdam in March, and in Santiago de Compostella in May 1996, by which time the work should be completed and final reports and recommendations ready. This schedule will enable the FIP General Assembly, in London in September 1996, to make its decision regarding the new federation and to elect a new praesidium with a view to cover the needs of the new body, and for the CEB General Assembly, in June 1997, to do the same.

The Group is currently working on a wide range of issues, including: the name and associated logo, the location and duties of the secretariat, the organisational structure, the election procedures, the membership structure, the finances, legal aspects and statutes, and matters of ethos and tradition. It is proposed that a single document covering all these aspects, together with a timetable for the implementation of the proposals, will be produced.

Special attention is focused on the technical and scientific work of the new body, and a Joint Strategy group headed by J. Walraven has been set up to advise the Implementation Group on this subject. Other members of the Strategy Group are R. Eligehausen, M. Fardis, G. Mancini, S. Rostam, P. Scheissl and L. Taerwe from CEB and A. van Acker, S. Helland and P. Matt from FIP.

The bringing together of two bodies with different histories and traditions is a challenging task. The major decision to create one unique new body has, by way of Resolutions, already been taken by the CEB and FIP Councils. The important thing now is to ensure that the views of the various National Groups are understood and addressed appropriately to ensure their full commitment and support during the decision-making and implementation process.

ROY ROWE

*President CEB*

JAN MOKSNES

*President FIP*

International Federation for Structural Concrete  
Fédération internationale du béton



# Video message of

# Theodosios Tassios,

# CEB President 1983-1987

Balázs, G.L.: *Opening address. Messages Tassios and Moksness, 28-29 Sept 2023, Chania, Crete, Greece*

15/1  
6

## Mail of Jan Moksnes to the *fib*25 event (2 Aug. 2023)

....

Thank you for your kind invitation for me to attend the 25-year fib celebration at Crete. Regrettably the years have caught up with me and I no longer undertake journeys to faraway places.

I had the privilege to serve as FIP president in the years prior to the decision to merger FIP and CEB and I was a member of the Implementation Group which was set up in 1995. I have memories of hectic activities as we worked on a wide range of issues to merge two bodies with different histories and traditions.

The final merger in 1998 has in my mind been a success and fib has established itself as a strong and unique professional body contributing significantly to research and developments in the global concrete industry.

Continued <sup>16/1</sup>  
6



## Mail of Jan Moksnes to the *fib*25 event (2 Aug. 2023)

....

The world has changed so much in the past 25 years, not least with regards to internet and the digital technology. We all know that change is inevitable and must be encouraged and I am glad to see that fib appears to have moved with the times. On an occasion like this, however, I permit myself a quick look back to remember the days of printed reports, papers and news-letters. We should be proud of our history which brought us to where we are today.

I wish fib a very successful 25-year celebration and I expect fib to continue to move with the times and deliver what is required to support the concrete industry in the future.

Kind regards, Jan Moksnes

# 70 years *fib* – CEB – FIP Presidents



Balázs, G.L.: Opening address. Messages Tassios and Moksness, 28-29 Sept 2023, Chania, Crete, Greece

## *fib* – CEB – FIP PRESIDENTS



1953-57 André Balency-Béarn (F)  
 1957-68 Franco Levi (I)  
 1968-71 Hubert Rüsç (D)  
 1971-78 Andrew Short (UK)  
 1979-83 Julio Ferry-Borges (P)  
 1983-87 Theodossios Tassios (GR)  
 1987-98 Roy Rowe (UK)

1953-58 Eugène Freyssinet (F)  
 1958-61 Eduardo Torroja (E)  
 1961-66 Yves Guyon (F)  
 1966-70 Franco Levi (I)  
 1970-74 Gerrit F. Janssonius (NL)  
 1974-78 Ben C. Gerwick Jr. (USA)  
 1978-82 Roger Lacroix (F)  
 1982-84 John Derrington (UK)  
 1984-88 Hans Wittfoht (D)  
 1988-92 René Walther (CH)  
 1992-96 Jan Moksnes (N)  
 1996-98 Michel Virlogeux (F)




1998-2000 Michel Virlogeux (F)  
 2000-2002 Joost Walraven (NL)  
 2002-2004 Jim Forbes (AUS)  
 2005-2007 Giuseppe Mancini (I)  
 2007-2008 Hans-Rudolf Ganz (CH)  
 2009-2010 Michael Fardis (GR)  
 2011-2012 György L. Balázs (H)  
 2013-2014 Gordon Clark (UK)  
 2015-2016 Harald S. Müller (D)  
 2017-2018 Hugo Corres (E)  
 2019-2020 Tor-Ole Olsen (N)  
 2021-2022 Akio Kasuga (J)  
 2023-2024 Steven Foster (AUS)

**Balázs, G.L.: Opening address. Messages Tassios and Moksness, 28-29 Sept 2023, Chania, Crete, Greece**

19/1  
6

# *fib* 25<sup>th</sup> Anniversary

*Federation for Structural Concrete fib*

*29 Sept. 2023, Chania, Crete, Greece*

*finalized during the Presidium at 23 to 24 February 2024 in Lausanne*

## *fib* Memorandum of Chania

*based on the discussions during celebration of 25<sup>th</sup> anniversary of fib as well as  
70<sup>th</sup> anniversary of CEB and 71<sup>st</sup> anniversary of FIP*

**The *fib* Presidents** – all past Presidents of *fib*, along with the current *fib* President – as well as the ***fib* Presidium** members, had a special meeting exclusively dedicated to the **25<sup>th</sup> anniversary of the *fib*** in Chania, Crete, Greece, to **review the past and present achievements and future challenges** of the *fib* (formerly CEB and FIP).

# *fib* 25<sup>th</sup> Anniversary

## The *fib* emphasises

efforts for high quality and high technical value **in the design, the construction and the sustainable maintenance** (or preservation) of concrete structures, considering optimal selections of materials, safety, serviceability, reliability, sustainability, durability, service life, carbon neutrality, and performance-based requirements.

## The *fib* promotes

**structural concrete** and develops technical, economical, aesthetic, and environmental guidance for the performance of concrete constructions. The main products of the *fib* are the Model Codes (MC1978, MC1990, MC2010, MC2020, etc.), *fib* Bulletins, guidance documents, and the Structural Concrete Journal.

## The *fib* intends to serve

all practical needs for the design of concrete structures in our rapidly changing world. By its **ethos**, the *fib* federation is a major contributor to concrete science and technology, serving engineers as well as all who make use of concrete structures.

# *fib* 25<sup>th</sup> Anniversary

The *fib* is open

to **supporting technical development** and innovations in codification as well as in applications, considering the most recent achievements in new materials, new technologies, carbon neutrality, digitalisation, automation, and Artificial Intelligence (AI), etc.

## **The *fib* collaborates**

with other associations and standardisation institutes in many fields to reach common practices for wider use. The results of our efforts should be developed through collaboration between academia and practice. The transfer of knowledge between scientists, designers, and authorities is fundamental. Collaborations across various fields of engineering and architecture are welcome.

## **The *fib* is considered to be a very efficient working platform**

that is **based on collegial communication** in a positive atmosphere. Design codes and standards of the *fib* are developed on a consensus basis by member countries of the *fib* originating from five continents. The work in the *fib* is based exclusively on engineering without political or religious influence.

# *fib* 25<sup>th</sup> Anniversary

## The *fib* supports recognition

for **authorship of structural design and optimal material** use in the work of civil and structural engineers of high value. This may include, for example, national or UNESCO listings or on-site recognition at the construction of historical or monumental concrete structures.

## The *fib* intends to review its vision

**and strategy** for the future in order to meet the current needs of engineers as well as the needs of society, and to ensure the completeness of activities within the *fib*.

## If you join *fib*,

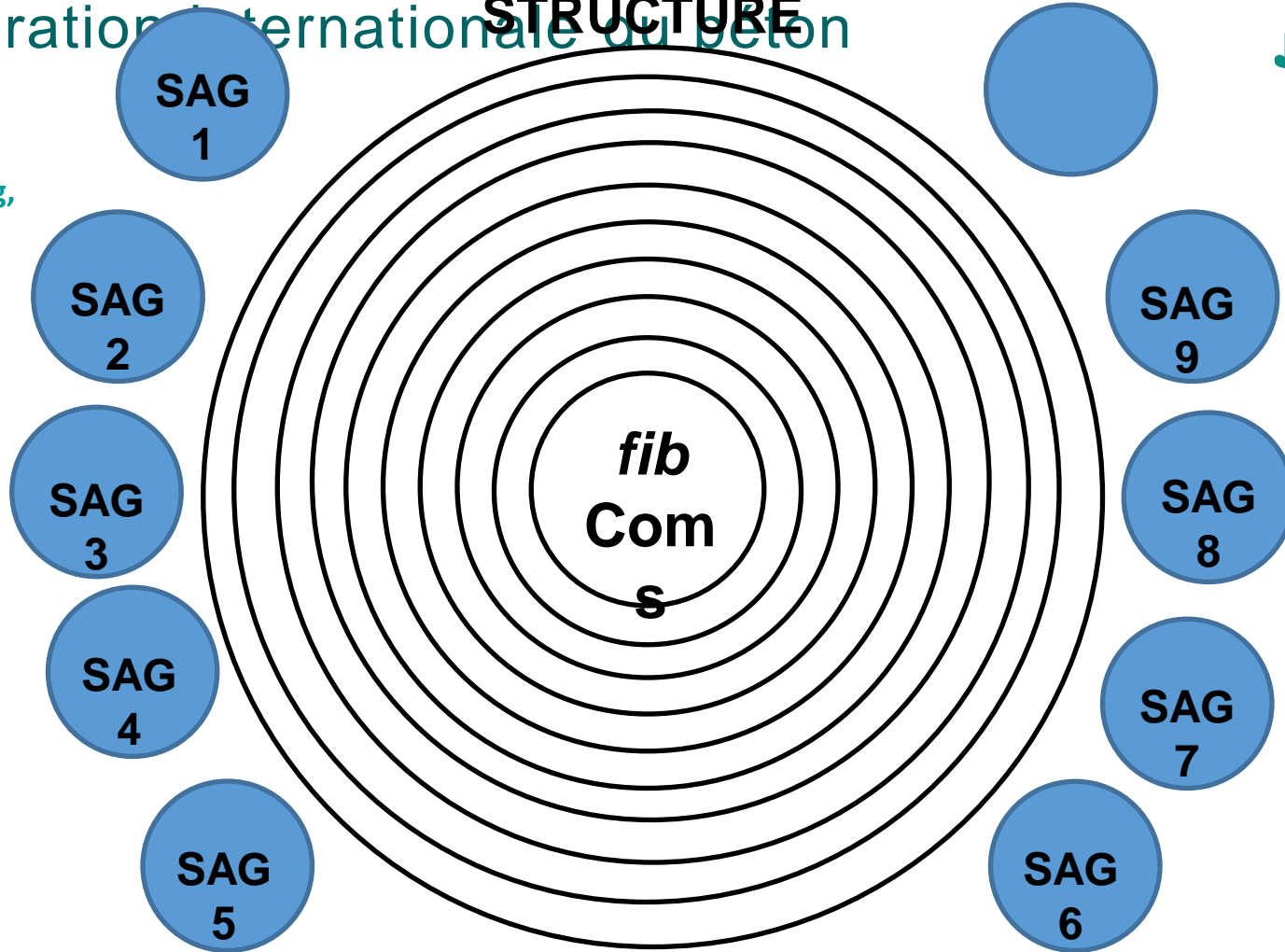
you can influence the future and become part of the *fib family*.

***fib* Presidents and *fib* Presidium Members** (names and perhaps signatures)

# International Federation for Structural Concrete Fédération Internationale du Béton



9 June 2012  
fib Technical  
Council meeting,  
Stockholm

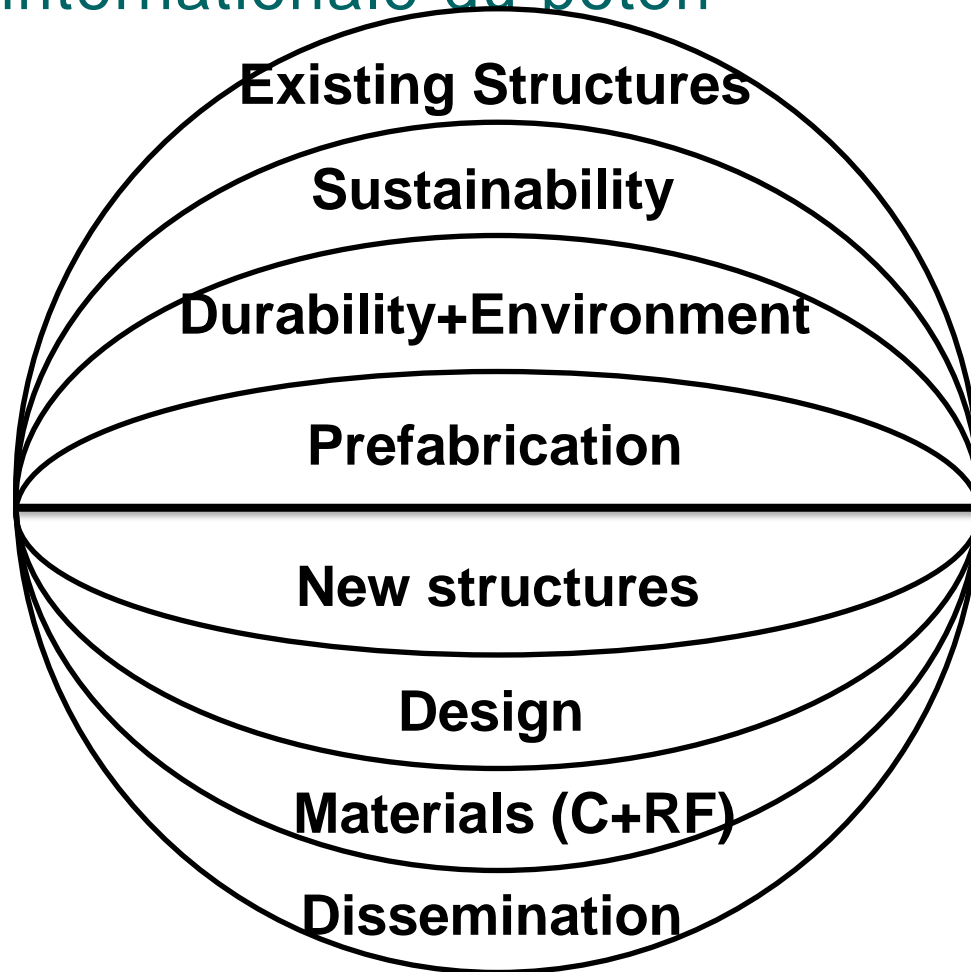




# International Federation for Structural Concrete Fédération internationale du béton



9 June 2012  
fib Technical  
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Stockholm

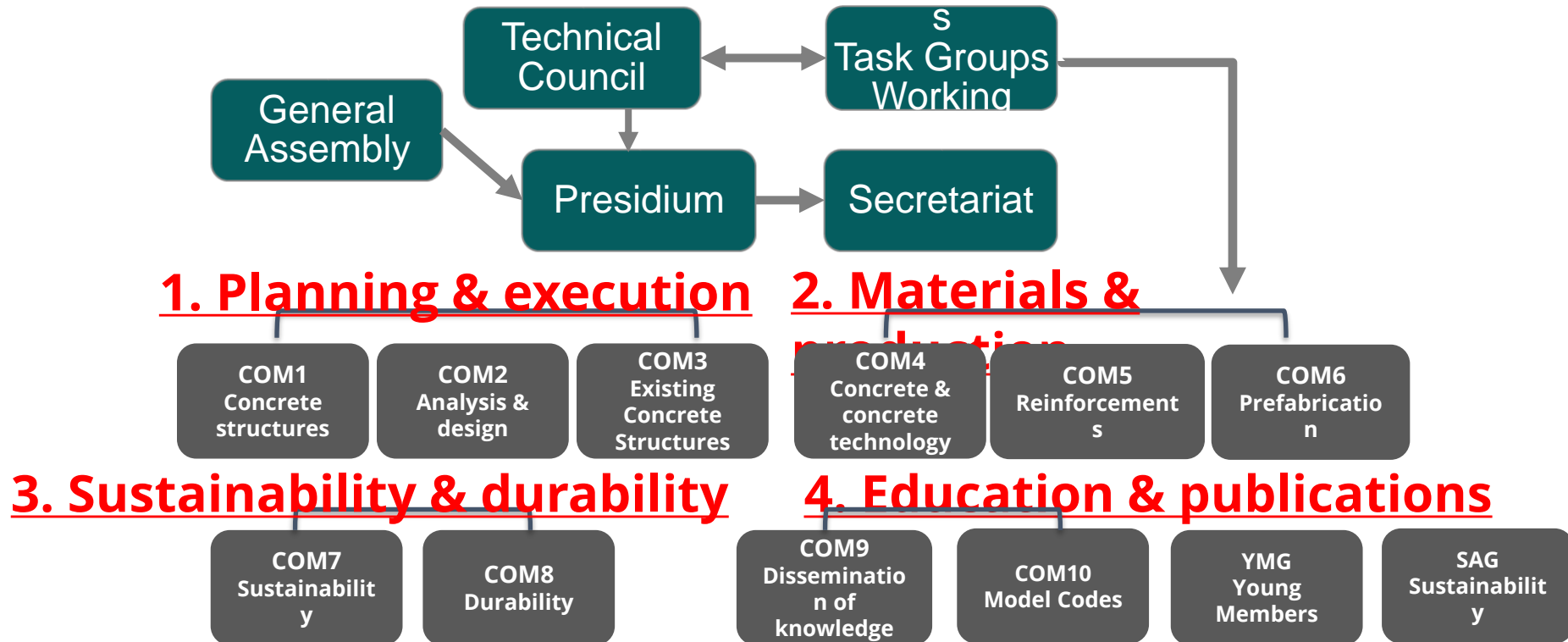


9 June 2012  
fib Technical  
Council meeting,  
Stockholm

C1	STRUC-TURES	Applications	Bridges	Marine structures		High rise buildings
C2	SAFETY AND	PERFORM.				
C3	ENVIRON- MENTAL	Protective concrete struct.	Green concrete	Env. design to c. struct.	Life Cycle Assessment	Life cycle perspective
C4	MODELLING AND DESIGN	SLS	ULS	Fire design	PC based Modelling	Bond models
C5	SERVICE LIFE	RC sturct. in corrosive env.	Repair	Birth- rebirth certificate	Sesimic on precast	Assessment of existing str.
C6	PREFABRICA- TION	Hollow-core slabs	Connec- tions	Precast housing	Seismic of precast	Precast sandwich
C7	SEISMIC DESIGN	Buildings	Seismic codes	Performance based desgn		
C8	CONCRETE	LWC, FRC, UHPC	Flow-able c.	Code models	Aesthetics	Performance besed spec.
C9	REINF. & PREST. MATS	Reinf. systems, Dur. of PC	FRP, Anchors	External tendons	Cable for bridges	Behav. in cryogenic
C10	CONSTRUCT.					
SAG	Dissemination of knowlegde	Fastenings	New MC	Composite constrctn	Ass.ment of existng st.	Sustainability

**Structure, organization and current activities**

The *fib*'s structure – activities are well structured



# - courses 2003 - 2014

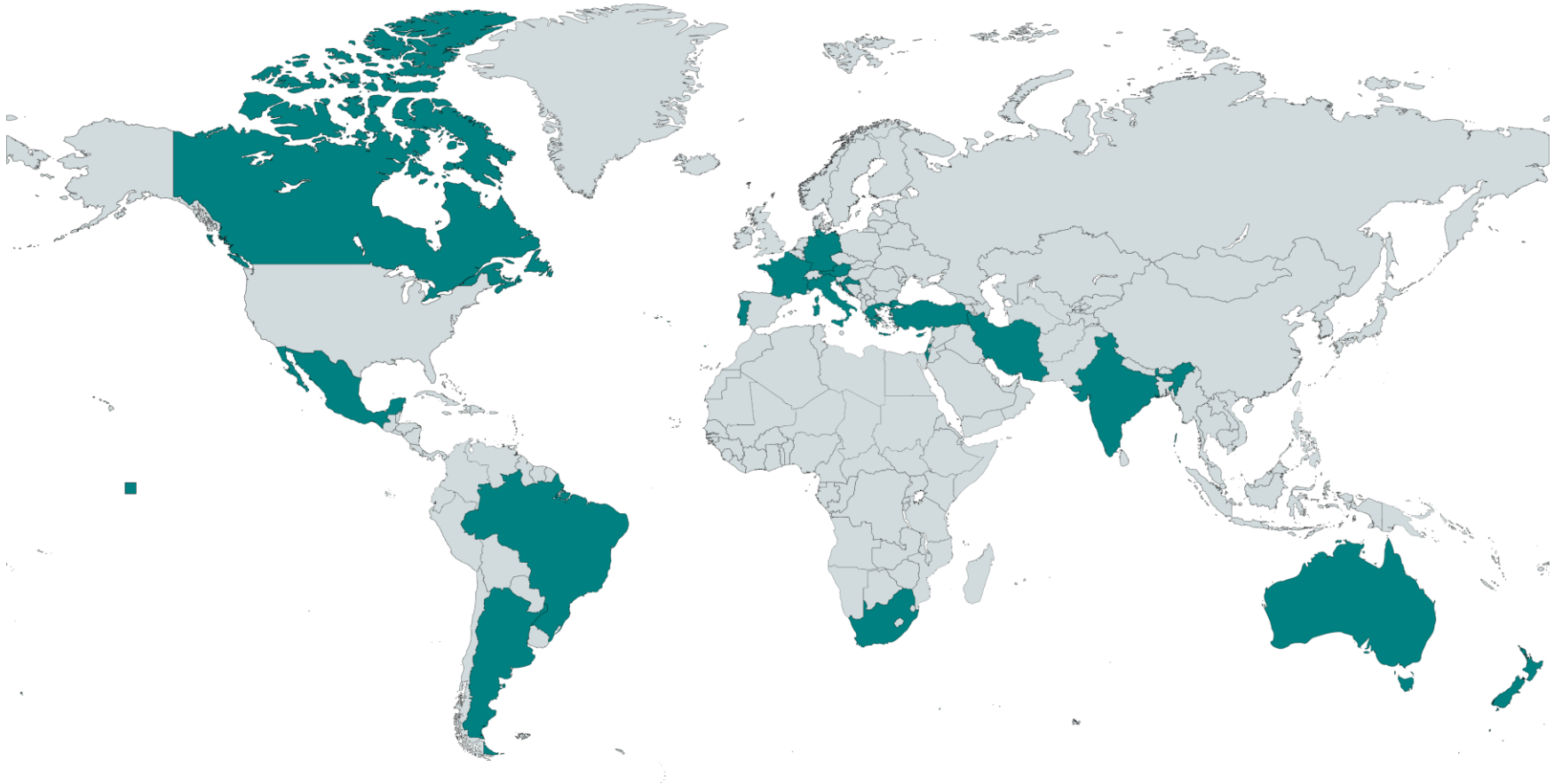
**2011-12:** Nicosia, Athens, New-Delhi, Brescia, Johannesburg, Durban, Cape Town, Milano, Napoli, Ankara

**2013 Sept-Oct:** Buenos Aires, Vienna

**2014 Febr 13-14, Mumbai**



# MAP of *fib*-courses - 2024



Created with mapchart.net

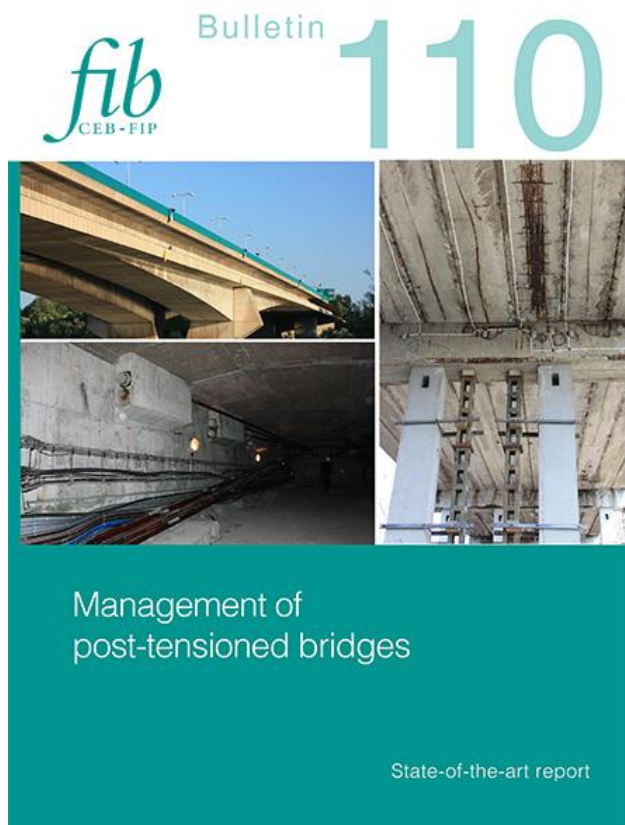
# The *fib*'s Structural Concrete journal

**Impact Factor 2023: 3.2, 2022: 2.793**

**IF 2021: 3.131, IF 2020: 2.174, IF 2019: 1.885, IF 2018: 1.384**  
**6 issues from 2016**

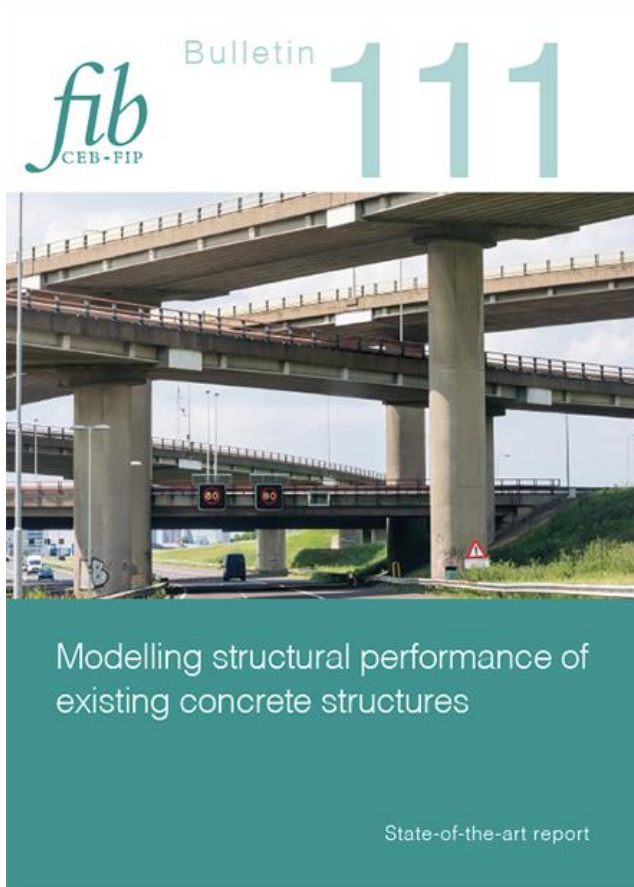


# Bulletin No. 110.: Management of post-tensioned bridges



- ❖ State-of-the-art Report
- ❖ Pages: 129
- ❖ ISBN: 978-2-88394-173-1
- ❖ Year: 2023

# Bulletin No. 111.: Modelling structural performance of existing concrete structures



- ❖ State-of-the-art Report
- ❖ Pages: 169
- ❖ ISBN: 978-2-88394-177-9
- ❖ Year: 2024



# Bulletin No. 112.: fib MC(2020) complementary guidance on concrete durability



- ❖ Technical report
- ❖ Pages: 87
- ❖ ISBN: 978-2-88394-179-3
- ❖ Year: 2024

# Bulletin No. 113.: Polymer-duct systems for internal bonded post-tensioning

 Bulletin **113**

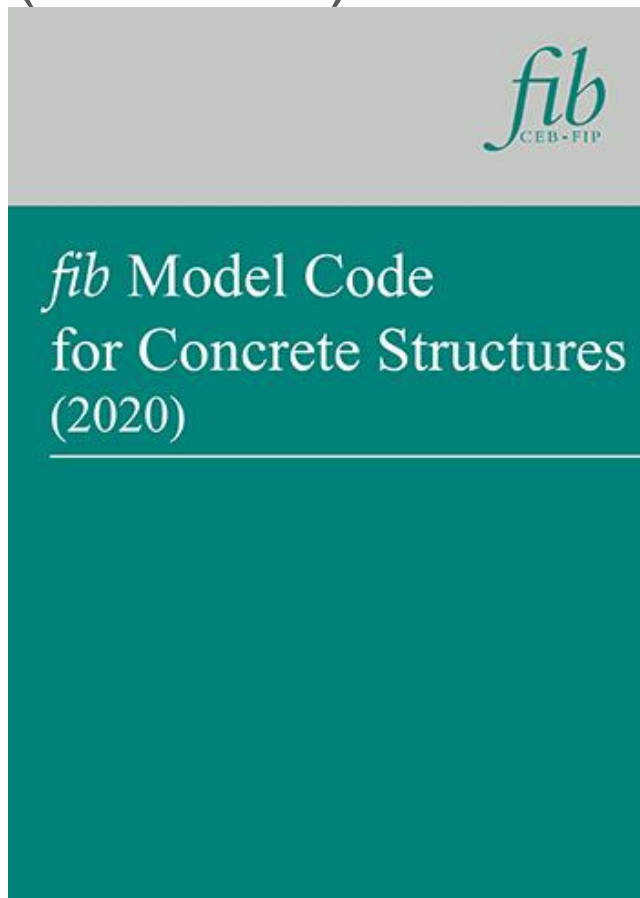


Polymer-duct systems for internal bonded post-tensioning

Recommendation

- ❖ Recommendation
- ❖ Pages: 171
- ❖ ISBN: 978-2-88394-185-4
- ❖ Year: 2024

# fib Model Code for Concrete Structures 2020 (MC2020)



- ❖ Model Code
- ❖ Pages: 780
- ❖ ISBN: 978-2-88394-175-5
- ❖ Year: 2024

## 2024 jún. 5. Conceptual Design 4

### Horváth Adria: Hidak koncepcionális tervezése

2023 szept. 5. Conceptual Design 3

Prof. Patoni Dénes

2023 máj. 24. Conceptual Design 2

Dezső Zsigmond

2023 márc. 23. Conceptual Design 1

Prof. Balázs L. György, Polgár László, Pohl Ákos



Együttműködve a BME Építőmérnöki Karon:  
Építőanyagok és Magasépítés Tanszékkel  
Hidak és Szerkezetek Tanszék  
Együttműködve a BME Építésmérnöki Karon:  
Szilárdságtani és Tartószerkezeti Tanszékkel  
Közlekedéstudomány Egyesület (KTE):  
Mérnöki Szerkezetek Szakosztállyal

Az ülés helye (PLACE):

BME Building K. 1st Floor Room 87

1111 Budapest, Műgyetem rkp. 3.

Az ülés kezdete (DATE):

9 (Thursday) July 2024, from 15.00 to 17.30

TEAMS online link: <https://tinyurl.com/4jhxzt3v>

### INVITATION - MEGHÍVÓ

## KONCEPCIONÁLIS TERVEZÉS 4 - CONCEPTUAL DESIGN 4

Tisztelettel meghívom a *fib* Magyar Tagozatának következő ülésére, amelynek programja lesz.

**Horváth Adrián**, ipari professzor, FÖMTERV Zrt./BME Hidak és Szerkezetek Tanszék

### „Hidak koncepcionális tervezése”

- Építmények tervezése...  
*...különös tekintettel a tervezői szerepekre.*
- Tanulmányterv – a híd szerkezeti koncepció  
*A híd szerkezeti koncepció*  
*Alapvető követelmények,*  
*A tanulmányterv kidolgozásának folyamata*
- Hidak esztétikai tervezése  
*Fogalmak a szépről*  
*Esztétikai tervezés*  
*Általános szempontok*   *Mindennapi hidak*   *Gyalogos és kerékpáros hidak*   *Nagy, illetve egyedi hidak*  
*Gazdaságosságról*
- Esettanulmányok. Diskusszió

### „Conceptual design of bridges”

- Design of buildings...  
*...with particular regard to designer roles.*
- Study plan – the bridge structure concept  
*The bridge structure concept*  
*Basic requirements,*  
*The process of developing the study plan*
- Aesthetic design of bridges  
*Concepts of beauty*  
*Aesthetic design*  
*General considerations*   *Everyday bridges*   *Pedestrian and bicycle bridges*   *Large and unique bridges*  
*About economy*
- Case studies. Discussion

Hozzászólások   Következő Ankét   Zárszó

Budapest, 5 July 2024

Dr. Balázs L. György, a *fib* MT elnöke

Honorary President of *fib*, President of *fib* Hungary

*fib* MT

2024 júl.9.

Horváth Adrián

Hidak koncepcionális  
tervezése

Az ülés helye (PLACE): BME Building K, 1st Floor Room 87 (K187)  
1111 Budapest, Műgyetem rkp. 3.

Az ülés kezdete (DATE): 5 (Monday) February 2024, from 15.00 – 16.30

### INVITATION - MEGHÍVÓ

Dr. László Csetényi – Dr. Csetényi László

Sourcing of fly ash and its effect on durability of concrete  
Szállópernye forrásai és hatása a beton tartósságára

#### Short summary of presentation:

Curbing greenhouse gas emissions by retiring coal fired power stations put limitations on the availability of fly ash and turned attention to sourcing from historic storage areas of the material (stockpiles and lagoons). The quality and applicability of such fly ash is variable as physical and chemical changes are noted over time, foremost affecting water requirement and reactivity. There is a range of processing options available to mitigate the effects with beneficial outcomes on the durability of fly ash concrete. A selection of these will be reported alongside testing methods and achievable improvements.

#### Az előadás rövid összefoglalója:

Az üvegházhatású gázok kibocsátása kézenfekvően a széntüzelésű erőművek leállításával jár együtt, de ez korlátozza az építőipar számára a pernye beszerzését. A flyasem a korábban betárolt források felé irányul mint lehetséges helyettesítők. A huzamosabb ideig való tárolás viszont egyértelmű változásokat okoz az anyag egyébként is változó minőségében, fizikai és kémiai hatások egyaránt megfigyelhetők, melyek leginkább a pernye vízigényét és reaktivitását érintik. Ezek a káros hatások különböző feldolgozási lépésekkel orvosolhatóak és javítani lehet velük a beton tartósságát. Az előadás számot ad a lehetséges módszerekről, mérési eljárásokról és az elérhető eredményekről.

	Dr. Csetényi László – Curriculum vitae
	2000- University of Dundee, Civil Engineering, Research/Teaching Fellow then Senior Research Fellow (concrete, fly ash, GGBS, durability, materials testing). Laboratory manager of the Scottish Marine and Renewables Testing Centre.
	1994-2000 University of Veszprem, Lecturer (materials science, construction materials and technologies)
	1994-1994 AEA Technology, Downreay, Scotland, technical attachment, "Investigation of disposal possibilities of ammonium diuranate (ADU) sludge"
	1991-1993 University of Aberdeen, Scotland, PhD studies, "Stability of borate-containing wastes encapsulated in cement" (project supported by Nuclear Electric plc)
	1985-1990 University of Veszprem, MSc chemical engineering (specialised in silicate chemistry)
In his work, he deals with cement chemistry and concrete technology, especially the use of secondary cementitious materials (e.g. fly ash, GGBS) to address environmental impact and durability of concrete.	

Affiliation: University of Dundee, Civil Engineering, Dundee DD1 4HN, Scotland, United Kingdom

e-mail: [l.csetenyi@dundee.ac.uk](mailto:l.csetenyi@dundee.ac.uk)

Homepage: <https://www.dundee.ac.uk/civil-engineering>

<https://discovery.dundee.ac.uk/en/persons/laszlo-csetenyi>

Budapest, 10 Jan. 2024

Prof. Balázs L. György, s.k., a fib MT elnöke

2024. febr. 5.

Dr. Csetényi László,  
University of Dundee

Sourcing of fly ash and its  
effect on durability of  
concrete

Szállópernye forrásai és  
hatása a beton  
tartósságára

**PLACE** - Az ülés helye: **BME Building K, 1st Floor Room 95 (K195)**  
1111 Budapest, Műgyetem rkp. 3.  
**DATE** - Az ülés kezdete: **30 (Monday) Sept. 2024, from 16.00 – 18.00**

### INVITATION - MEGHÍVÓ

I kindly invite you for the presentation of:

**Michel Virlogeux:**  
**Long span, cable supported bridges and Discussion**

We kindly ask your registration (participation is free of charge): <https://forms.gle/9bOYnnQi9VNRG64g7>

Short summary of presentation:

The lecture will be devoted to cable supported bridges, and mainly to long span cable supported bridges: suspension bridges, cable stayed bridges and hybrid bridges, supported by both suspension cables and stay cables, the later giving more rigidity to the suspension system.

Some more unusual types of cable supported bridges will be evoked, like cable stayed bridges with multiple spans and curved cable stayed bridges. Finally, the division of the deck into two parallel stream lined box girders appears as an efficient option for very long spans.



**Michel Virlogeux** is born on July 7, 1946 at Vichy, France. He has been educated at the Prytanée National Militaire at La Flèche. He was graduated in 1967 at the Ecole Polytechnique, in 1970 at the Ecole Nationale des Ponts et Chaussées ; in 1973 he became Docteur-Ingénieur of the Paris University. Civil servant in the French Administration, he started his professional career during three years in Tunisia. When back to France in 1974, he worked more than 20 years at the Setra, the technical service of the Ministry of Transport, where he became head of the large concrete bridges division (1980), and later head of the large bridges division, concrete and steel. In this position, he designed many bridges, including the Normandie Bridge. In 1995 he settled as independent consultant, working as expert and designer. Among many other bridges, he designed the Millau Viaduct, the Térénez curved cable-stayed bridge, and the Third Bosphorus Bridge with Jean François Klein.

He is **currently** part time Professor at the Ecole Nationale des Ponts et Chaussées. He has been very active in national and international associations of civil engineering.

He has been Président of the Fédération Internationale de la Précontrainte (1996-1998), and of the Fédération Internationale du Béton (1998-2000) after the merger of the FIP with the Comité Européen du Béton.

He received many national and international awards, and in 2021 he became Doctor Honoris Causa of the Wrocław University of Sciences and Technology.

e-mail: [virlogeuxconsultant@orange.fr](mailto:virlogeuxconsultant@orange.fr)

# fib MT

## 2024. szept. 30.

# Michel Virlogeux, France

# Long span, cable supported bridges and Discussion



Az ülés helye:

BME K ép, 1. em 87 (K187)

Az ülés kezdete:

1111 Budapest, Műegyetem rkp. 3.

2024. okt. 10. (csüt), 14.15 – kb. 16.15

**MEGHÍVÓ****Dr. Kausay Tibor, c. egyetemi tanár, BME  
kollégánk 90. születésnapjára**

Tisztelettel meghívjuk Dr. Kausay Tibor, c. egyetemi tanár kollégánk 90. születésnapja alkalmából rendezett ünnepi beszélgetésre. Az ülésen személyesen részt venni nem tudó Kollégák számára a következő online TEAMS bekapcsolódási lehetőség áll rendelkezésre:

<https://tinyurl.com/3z34cceb>

Az ünnepi beszélgetés meghívott résztvevői:

- Dr. Balázs L. György (az beszélgetés levezetője)
- Dr. Nehme Salem
- Dr. Erdélyi Attila
- Dr. Gálos Miklós
- Dr. Tóth Ernő
- Kürti István
- Spránitz Ferenc
- és mindenki más, aki szívesen csatlakozna a beszélgetéshez.

Az ünnepi beszélgetés keretében levetítjük Kausay Tibor erre az alkalomra készített magánéleti és szakmai tartalmú, közel egyórás videóját is.

A rendezvényen személyesen vagy online módon bárki résztvehet, **köszönettel** vesszük, ha előzetesen regisztráltak a következő címen:

<https://forms.gle/cAMFRRfLXH65rB6e9>

Dr. Kausay Tibor rövid szakmai életrajza:

Dr. Kausay Tibor (1934) okl. építőmérnök (1961), vasbetonépítési szakmérnök (1967), egyetemi doktor (1969), a műszaki tudomány kandidátusa (1978), Ph.D. (1997), címzetes egyetemi docens (1985), címzetes egyetemi tanár a BME Építőanyagok és Magasépítés Tanszéken (2003), a fib Magyar Tagozat tagja (2000), az MTA gróf Lónyay Menyhert emlékérmese (2003), a Palotas László-díj birtokosa (2013). Tevékenysége a betontechnológiai és a kő- és kavicsipari kutatásra, fejlesztésre, szakértésre, oktatásra, szabványosításra terjed ki. Publikációinak száma mintegy 220.

e-mail: [betonopu@t-online.hu](mailto:betonopu@t-online.hu)

fib MT

2024. szept. 30.

Dr. Kausay Tibor, c. egyetemi  
tanár, BMEkollégánk 90. születésnapjára  
köszöntésére





PROF. DR.-ING.  
LASZLO M. PALOTAS, PH.D.

**A 2023. ÉVI PALOTÁS  
LÁSZLÓ-DÍJ ÁTADÁSA**

2

**DR. MADARAS GÁBOR  
ELŐADÁSA A PALOTÁS-DÍJ  
ÁTADÁSÁKOR**

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**VÉRTES MÁRIA MAGDOLNA  
ELŐADÁSA A PALOTÁS-DÍJ  
ÁTADÁSÁKOR**

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DR. KÖVESDI BALÁZS,  
MAJER ZSOLT,  
DR. PORUBSKY TAMÁS,  
RÁCZ BALÁZS,  
DR. SZABÓ GERGELY,  
DR. BERKI ZSOLT,  
CSIKÓS CSABA

**A KÖZÜTI HIDAK FORGALMI  
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2024/1

XXVI. évfolyam, 1. szám



KISS RUDOLF

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DR. BALÁZS L. GYÖRGY -

DR. SÓLYOM SÁNDOR

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5.5.10  
2024/2

XXVI. évfolyam, 2. szám

# Magyar Tagok a *fib* Commission-okban és Task Group-okban



<b>Dr. Balázs L. György</b>	<b>Presidium Invited, General Assembly (Delegate), Technical Council, COM2, T2.1, T2.5, T4.1, TG 5.1, COM9 (Chairman), COM10, T2.4 WG2.4.1</b>
<b>Dr. Juhász Károly</b>	<b>T7.8 Sustainability - Recycled Materials and industrial by-product for high performance reinforced concrete structures</b>
<b>Dr. Kopecskó Katalin</b>	<b>General Assembly (Deputy Delegate)</b>
<b>Dr. Kovács Tamás</b>	<b>General Assembly (Deputy Delegate)</b>
<b>Magyar János</b>	<b>General Assembly (Deputy Delegate)</b>
<b>Dr. Sólyom Sándor</b>	<b>General Assembly (Delegate), T5.1, COM9 (Secretary), YMG Board Member</b>
<b>Szinvai Szabolcs</b>	<b><i>fib</i>-Hu YMG, YMG Board Member, TG10.3-WG4</b>
<b>Várdai Attila</b>	<b>T3.4</b>

# Magyar Tagok a *fib* Commission-okban és Task Group-okban



<b>Commission 2: Analysis and design</b> ☐	Balázs L. György☐
<b>Task Group 2.1: Serviceability models</b> ☐ .....WG 2.1.2: Restrained and imposed deformations☐	Balázs L. György☐ ☐ Balázs L. György☐ ☐
<b>Task Group 2.4: Computer-based modelling and design</b> ☐ .....WG 2.4.1: Modelling of Fibre Reinforced Concrete☐	☐ ☐ Juhász Károly☐
<b>Task Group 2.5: Bond and material models</b> ☐	Balázs L. György☐
<b>Task Group 3.2: Existing concrete structures: Modelling of structural preformance of existing structures</b> ☐ <b>Task Group 3.4: Selection and implementation of interventions / through-life management activities and measures for concrete structures</b> ☐	Várdai Attila☐ ☐ ☐ Várdai Attila☐
<b>Task Group 4.1: Fibre-reinforced concrete</b> ☐	Balázs L. György☐ ☐
<b>Task Group 5.1:</b> ☐ FRP (Fibre Reinforced Polymer) reinforcement for concrete structures☐	Balázs L. György☐ Sólyom Sándor☐
<b>Commission 9: Dissemination of knowledge</b> ☐	Balázs L. György, Chairman☐ Sólyom Sándor, Secretary☐
<b>Commission 10: fib Model Codes</b> ☐	Balázs L. György☐ ☐
<b>Young Members Group</b> ☐	Sólyom Sándor☐

# 2024. évi Palotás László-díj átadására



## A „PALOTÁS LÁSZLÓ-DÍJ” SZABÁLYZATA

A fib Magyar Tagozata (továbbiakban fib MT) a beton-, és feszített vasbetonszerkezetek körében kifejtett kiemelkedő mérnöki teljesítmények szakmai elismerésére és díjazására 2000-ben

## PALOTÁS LÁSZLÓ-DÍJ

kitüntetést alapított. A díj a tervezés, a kivitelezés, a kutatás-fejlesztés és az oktatás, valamint az ezekhez oszlatkozó területeken elért kimagasló eredményekért adományozható. A díjra azok a magyar alkotók lehetnek jogosultak, akik tevékenységükkel jelentősen segítették a vasbetonépítési kultúra fejlődését, öregbítették a szakma hazai és nemzetközi hírnevét és lehetőleg tagjai a fib Magyar Tagozatának.

A díjjal kapcsolatos részletes intézkedések a következők:

1. A díjat évente egy alkalommal, egy vagy legfeljebb két hazai mérnök alkotó tevékenységének elismeréseként adományozza a fib MT, ezen kívül lehetőség van egy külföldön élő alkotó díjazására is. A díj rendkívüli esetben adományozható, ha erre a fib MT vezetősége a feltételeket (a bevezetőben felsorolt szempontok, az illő alkalom, a szükséges pénzkeret) biztosítva látja.
2. A díjat a fib MT mindenkor elnöke a fib MT ünnepélyes összejövetelén adja át.
3. A díj formája bronz plakett, feltüntetve az adományozás évét és a kitüntetett nevéét. Ehhez oklevél és pénzjutalom jár. A díj összegét a fib MT közgyűlése az éves költségvetésben határozza meg. A kifizetett nettó pénzjutalom után a törvényes járulékokat és adót a fib MT fizeti.
4. Javaslatot a díjra – kellő indoklással – az előírt, ill. megkívánt feltételeket igazoló dokumentumokkal együtt – a Kuratóriumnak címezve – a fib MT vezetőségéhez kell eljuttatni minden év október 20-ig. A kuratórium a döntését az azt követő november 10-ig hozza meg.
5. A díj odaítéléséről a fib MT által választott héttagú kuratórium dönt. A kuratóriumban képviselést kapnak a fib MT tagjai közül a tervezők, a kivitelezők, az oktatók, a kutatók, a fejlesztők, az anyag- és szerkezetgyártók, valamint a fib MT vezetőségének egy tagja.  
A kuratórium tagjainak választása az egyesület tisztségviselőinek választására vonatkozó szabályok szerint történik. A kuratórium megbízatása négy évre szól.  
A kuratórium elnökét a kuratórium tagjai maguk közül választják.  
A díj odaítélésének feltételeit, valamint a kuratórium működésének rendjét a kuratórium határozza meg és Működési Szabályzatban rögzíti, melyet nyilvánosságra hoz.  
A kuratórium határozatképes, ha tagjainak legalább 2/3-a jelen van az előre meghirdetett ülésen. Döntéseit egyszerű szótöbbséggel hozza. Szavazategyenlőség esetén az elnök szavazata dönt.
6. A kuratórium döntése megfellebbezhetetlen, sem a fib MT vezetése, sem a közgyűlés nem élhet vétóval.
7. A díjak odaítélését követően a fib MT vezetése gondoskodik a kitüntetés tényének publikálásáról, és megszervezi a kitüntetett tevékenységét kellően reprezentáló kiállítási anyag összeállítását és bemutatását.
8. Jelen szabályzatot a fib MT vezetősége a közgyűlés felhatalmazása alapján hagyta jóvá, és léptette életbe, egyben hatályon kívül helyezte az első, 2000. áprilisban kelt Szabályzatot.

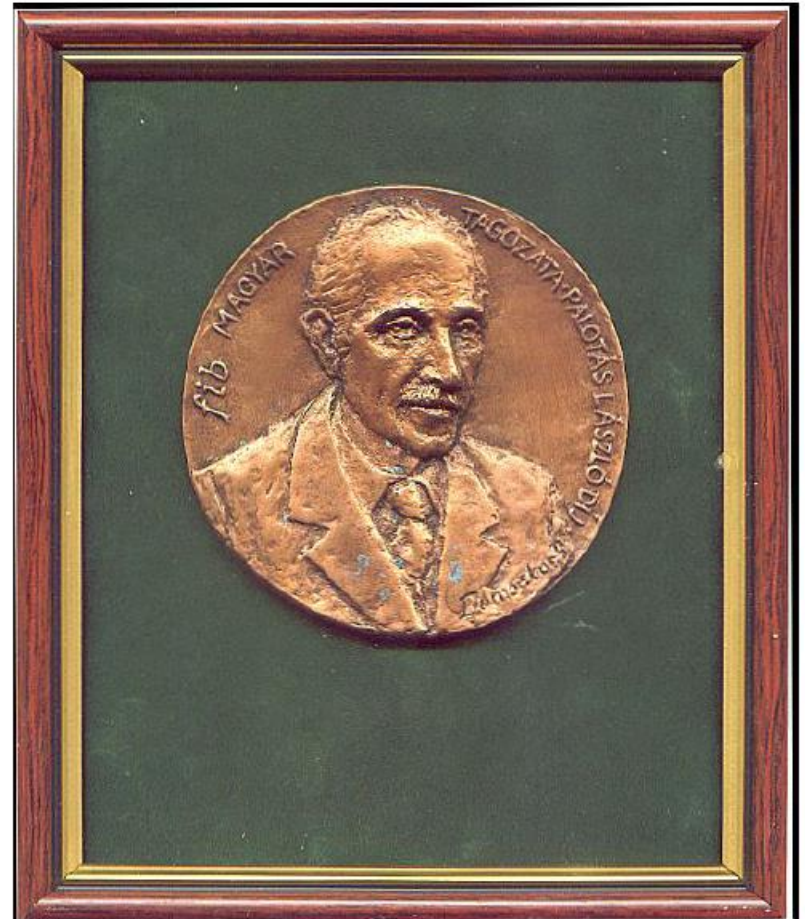
Budapest, 2003. április

A fib Magyar Tagozatának  
vezetősége

## A PALOTÁS LÁSZLÓ-DÍJ kuratóriumának tagjai a 2022-2026. évekre

Dr. Farkas György	elnök	(oktatás)
Dezső Zsigmond	tag	(magasépítés, tervezés)
Csorba Gábor	tag	(tervezés, betontechnológia)
Kovács Emil	tag	(hidépítés, kivitelezés)
Dr. Orbán Zoltán	tag	(oktatás)
Pisch Zsuzsa	tag	(mérnöki tevékenység)
Rácz Attila	tag	(előregyártás)
Szebényi Gergő	tag	(vasúti műtárgyüzemeltetés, tervezés)
Dr. Teiter Zoltán	tag	(tervezés, oktatás)

## MEGHÍVÓ a 2023. évi PALOTÁS LÁSZLÓ-DÍJAK átadására



# 2024. évi Palotás László-díj átadására



## MEGHÍVÓ

A *fib* (Nemzetközi Betonszövetség) Magyar Tagozata nevében tisztelettel meghívom a 2024. évi Palotás László-díjak átadására

A díjazottak:



Dubrovsky Gábor



Spránitz Ferenc

A 2024. évi Palotás László-díjat kapják:

**Dubrovsky Gábor**, okl. építőmérnök, ügyvezető igazgató,  
Betonwerk s.r.o., Párkány

és

**Spránitz Ferenc**, okl. építőmérnök, betontechnológus szak-  
mérnök, Betonüzem vezető, minőségirányítási vezető, Do-  
lomit Kőbányászati Kft., Gánt

A díjátadás helye: Budapesti Műszaki és Gazdaságtudományi  
Egyetem, Díszterem, 1. emelet 3. terem,  
1111 Budapest, Műegyetem rkp. 3.

A díjátadás Online módon is követhető lesz

<https://tinyurl.com/fk2xa6sn>

A díjátadás kezdete: 2024. dec. 9. (hétfő) 14<sup>00</sup>

Előzetes jelentkezés: <https://forms.gle/ZsordnawGzMXgPoa9>

Budapest, 2024. november 22.

Dr. Balázs L. György  
a *fib* Magyar Tagozata elnöke

## A díjátadás programja

### 1. Megnyitó

Prof. Dr. Balázs L. György, *fib* tiszteletbeli elnöke  
a *fib* (Nemzetközi Betonszövetség)  
Magyar Tagozatának elnöke

### 2. A Kuratórium döntésének és a díjazott életrajzának ismertetése

Prof. Farkas György, a Kuratórium elnöke

### 3. A 2024. évi Palotás László-díj átadása kapcsán ifj. Palotás László, Prof. Dr.

### 4. Dubrovsky Gábor, 2024. évi díjazott, előadása

### 5. Spránitz Ferenc, 2024. évi díjazott, előadása

### 6. A díjak átadása. Ünnepi köszöntések:

ifj. Palotás László, Prof. Dr.  
Prof. Farkas György, a Kuratórium elnöke  
Prof. Dr. Balázs L. György, *fib* tiszteletbeli elnöke  
Az ünnepi ülés résztvevői.

### 7. Következő ünnepi díjátadás: 2025. dec. 8.

A 2024. évi Palotás László-díj támogatója:



**fib PhD Symposia 1996 – 2022 ... 28-30 aug 2024**

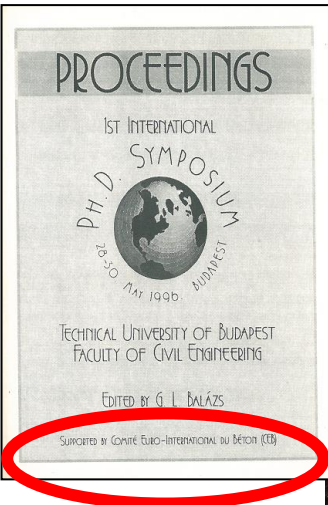
International PhD Symposia in Civil Engineering  
supported by *fib*

INVITATION to *fib* PhD Symposium 2024 Budapest

1. 1996. Budapest Univ. of Technology (BME)
2. 1998. Budapest Univ. of Technology (BME)
3. 2000. Univ. of Applied Sciences Vienna
4. 2002. Technical Univ. Munich and Univ. of Federal Armed Forces Munich
5. 2004. Research School Structural Eng. and Delft Univ. of Technology
6. 2006. ETH Zürich
7. 2008. Universität Stuttgart
8. 2010. Tech. Univ. of Denmark, Lyngby
9. 2012. Karlsruhe Institute of Techn. (KIT)
10. 2014. Université Laval, Quebec City
11. 2016 The University of Tokyo
12. 2018 Prague
13. 2020 + 2021 France
14. 2022 Italy, Uni. Tor Vergata
- 15. 2024 Budapest, BME**

*G.L. Balázs, BME, Budapest, Hungary*

# International Federation for Structural Concrete



1996 and 1998

2000...2002...2004...  
2006...2008...2024

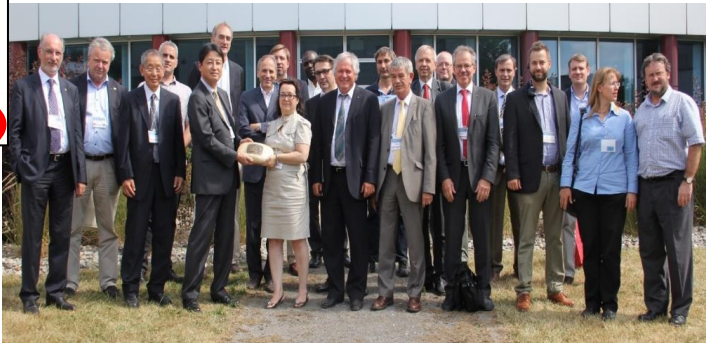
2020/202

2014 Quebec city 1



2018 Prague <sup>202</sup>  
2

<sup>202</sup>  
4



2010 Lyngby



2012 Karlsruhe



2016 Tokyo

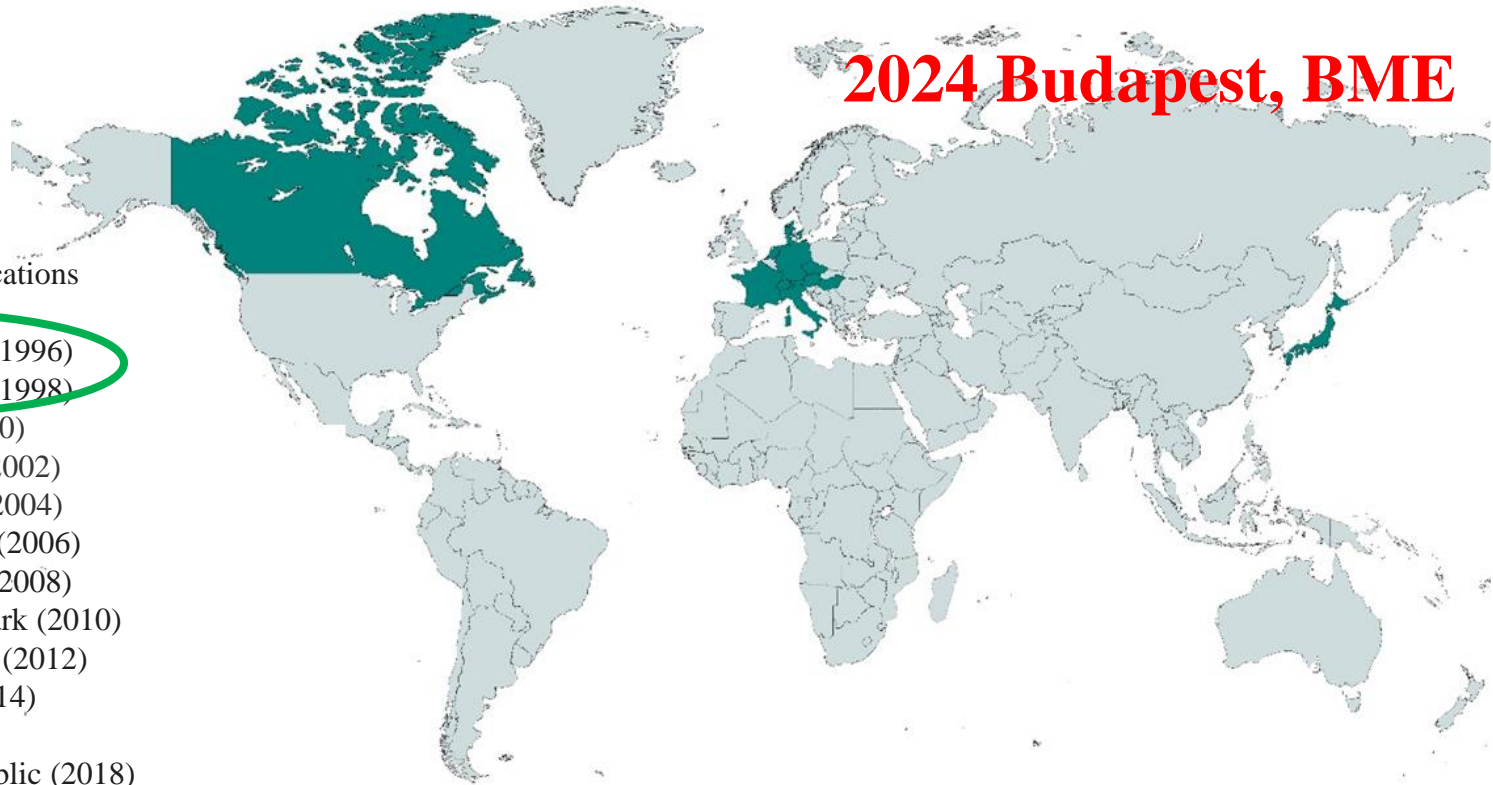


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8



# MAP of PhD SYMPOSIA

Organizers: 15 universities from 3 continents: Europe, America, Asia



- PhD Symposia locations
- Budapest, Hungary (1996)
  - Budapest, Hungary (1998)
  - Vienna, Austria (2000)
  - Munich, Germany (2002)
  - Delft, Netherlands (2004)
  - Zurich, Switzerland (2006)
  - Stuttgart, Germany (2008)
  - Copenhagen, Denmark (2010)
  - Karlsruhe, Germany (2012)
  - Québec, Canada (2014)
  - Tokyo, Japan (2016)
  - Prague, Czech Republic (2018)
  - Paris, France (2020)
  - Rome, Italy (2022)
  - Budapest, Hungary (2024)

Vienna (2026), USA (2028), Krakow 2030, Tongji China 2030

Created with mapchart.net

# PhD Symposium Symbolic stone FRONT Bronze Plaque Université-Laval-Quebec-City 2014





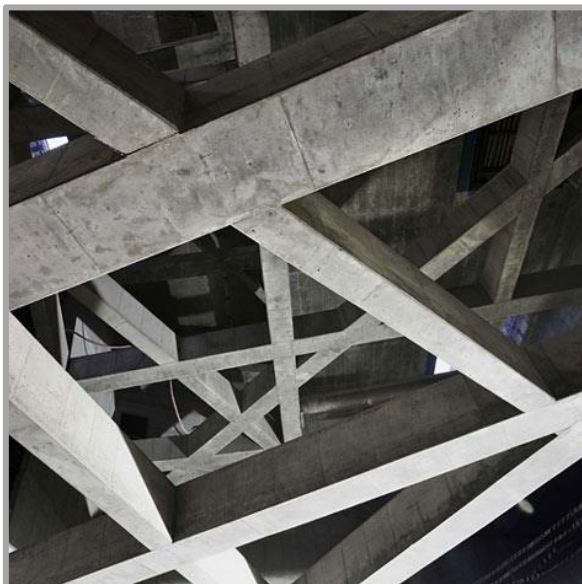


# Transfer of Symbolic stone



# 15<sup>th</sup> *fib* PhD Symposium





# *15<sup>th</sup> fib PhD Symposium Budapest*

## *Paper submissions*

**Prof. György L. Balázs, Chair SC and OC**  
BME, Honorary President of *fib*, President of *fib*-Hu

### **Scientific Committee**

**Dr. Sándor Sólyom, Co-Chair**  
BME, Deputy President of *fib*-Hu

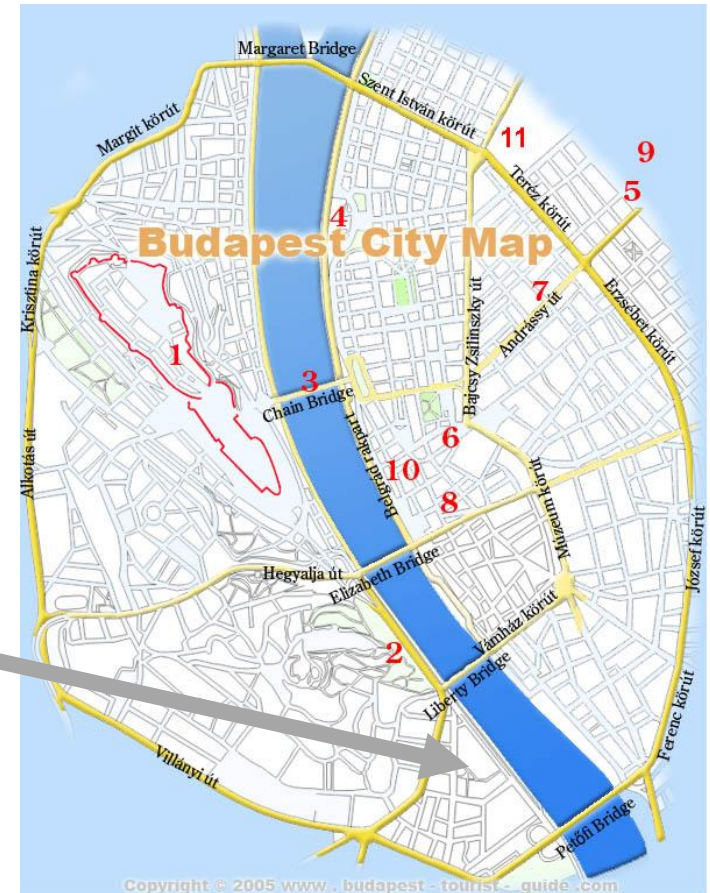
**Prof. Steven Foster, Co-Chair**  
University of New South Wales

### **Organizing Committee**

**Szabolcs Szinvai, Co-Chair**  
BME, PhD Student

**András Biro, Co-Chair**  
BME, PhD student

# BME Budapest



# Topics

## A. INNOVATIONS IN STRUCTURES

1. Structural analysis, modeling and design

2. Bridges, reservoirs, dams, tunnels and road constructions

3. Buildings and shells

4. Structural reliability and risk analysis

## B. INNOVATIONS IN CONCRETES AND REINFORCEMENTS

5. Innovations in concrete and concrete technology

6. Innovations in metallic and non-metallic reinforcements

7. Digitalization - 3D concrete printing

## C. SUSTAINABILITY, DURABILITY, SERVICE LIFE

8. Sustainability of materials and structural systems, including heritage concrete structures

9. Durability of existing concrete structures and durability for future structures

10. Life cycle assessment and design. Rest life

## D. MAINTENANCE, RETROFITTING, STRENGTHENING

11. Heritage concrete structures

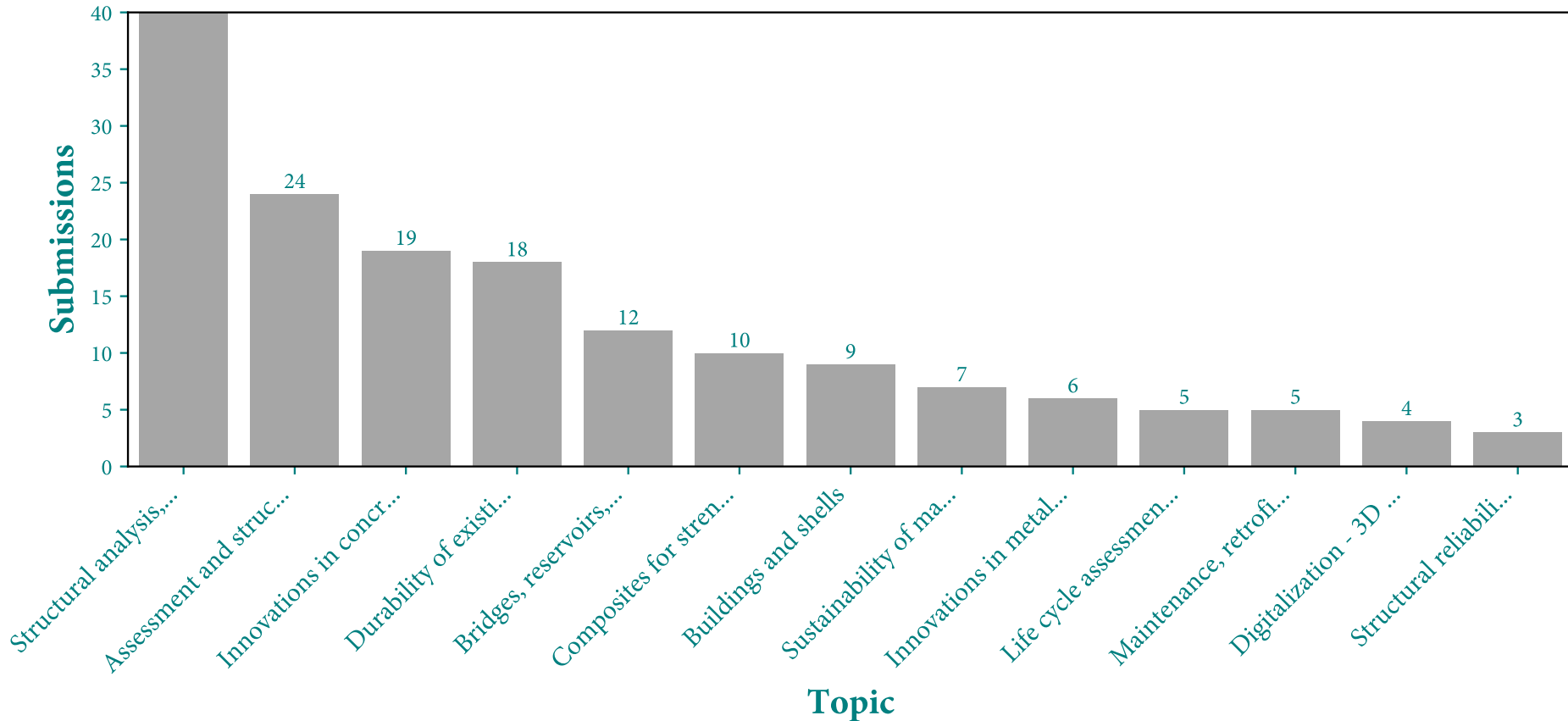
12. Assessment and structural health monitoring

13. Maintenance, retrofitting or strengthening of concrete structures

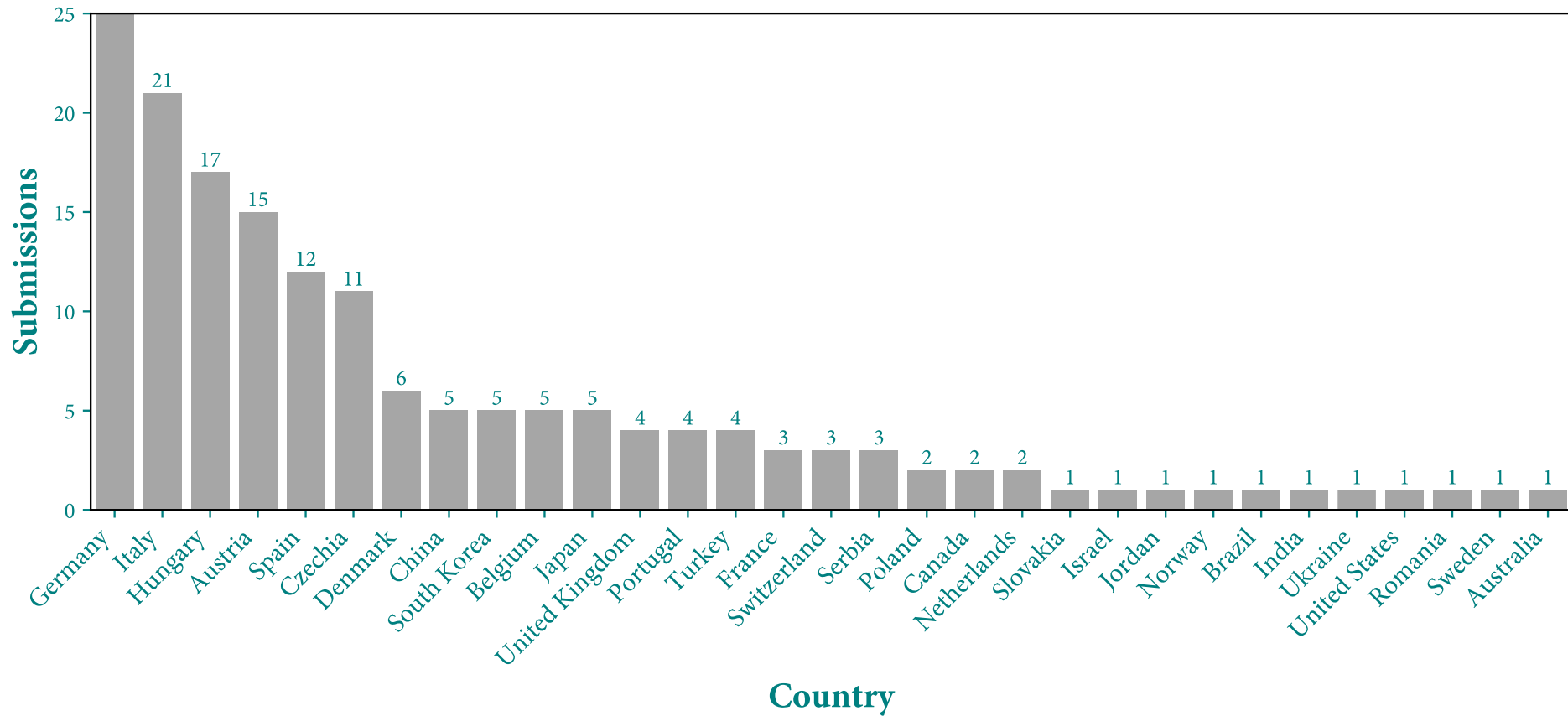
14. Composites for strengthening of concrete structures



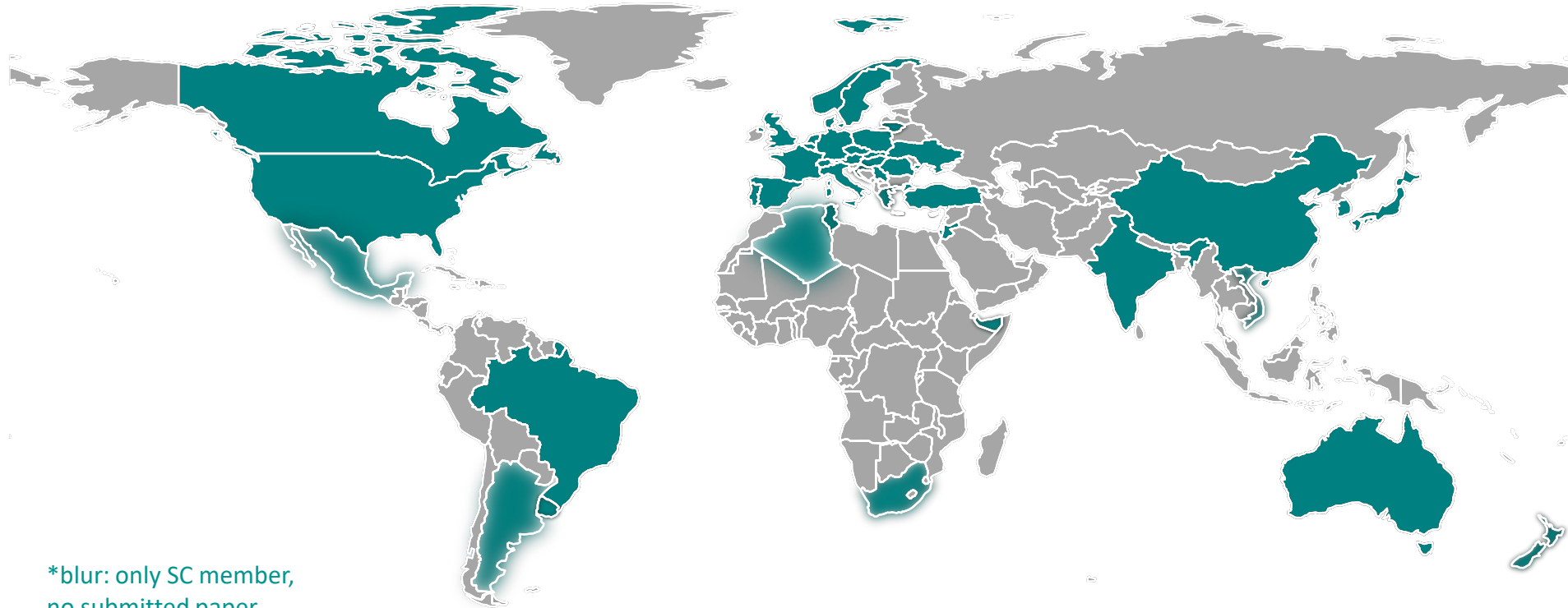
## PhD Symposium 2024 Budapest – Number of Papers by topics



## PhD Symposium 2024 Budapest – Number of Papers by Countries



## PhD Symposium 2024 Budapest – Number of Submissions over the Globe



## PhD Symposium 2024 Budapest – List of Universities

Affiliation	Country	Submission
University of New South Wales	Australia	1
Graz University of Technology	Austria	2
University of Natural Resources and Life Sciences Vienna	Austria	9
Technische Universität Wien	Austria	4
Belgian Nuclear Research Centre	Belgium	1
University of Liège	Belgium	2
Ghent University	Belgium	2
Universidade de São Paulo	Brazil	1
University of Ottawa	Canada	1
Université de Sherbrooke	Canada	1
Tongji University	China	4
Qingdao University of Technology	China	1
Brno University of Technology	Czechia	2
Czech Technical University	Czechia	7
University of Pardubice	Czechia	2
Technical University of Denmark	Denmark	6
Université Paris-Saclay	France	3
Karlsruhe Institute of Technology	Germany	4
University of Stuttgart	Germany	4
Technical University of Darmstadt	Germany	1
Leibniz University Hannover	Germany	3
Dresden University of Technology	Germany	6
Technical University Munich	Germany	2
Technische Hochschule Mittelhessen	Germany	1
Technische Hochschule Würzburg-Schweinfurt	Germany	1
Technische Universität Berlin	Germany	2
University of the Bundeswehr Munich	Germany	1
Budapest University of Technology and Economics	Hungary	12
Széchenyi István University	Hungary	2
University of Miskolc	Hungary	1
Indian Institute of Technology Tirupati	India	1
Israel Institute of Technology	Israel	1
Politecnico di Milano	Italy	3
Politecnico di Torino	Italy	3

University of Basilicata	Italy	1
University of Bergamo	Italy	1
University of Brescia	Italy	7
University of Rome "Tor Vergata"	Italy	3
University of Salerno	Italy	2
Università degli Studi Roma Tre	Italy	1
The University of Tokyo	Japan	3
Waseda University	Japan	1
Yokohama National University	Japan	1
Budapest University of Technology and Economics	Jordan	1
Delft University of Technology	Netherlands	2
University of Stavanger	Norway	1
Cracow University of Technology	Poland	1
Silesian University of Technology	Poland	1
University of Lisbon	Portugal	3
University of Minho	Portugal	1
Faculty of Civil Engineering	Serbia	1
University of Belgrade	Serbia	2
University of Novi Sad	Serbia	1
Slovak University of Technology in Bratislava	Slovakia	1
Seoul National University	South Korea	5
Polytechnic University of Valencia	Spain	2
Universitat Politècnica de Catalunya	Spain	8
Universitat de les Illes Balears	Spain	2
Linnaeus University	Sweden	1
ETH Zurich	Switzerland	3
Istanbul Technical University	Turkey	1
Istanbul University-Cerrahpasa	Turkey	2
Yildiz Technical University	Turkey	1
National University «Yuri Kondratyuk Poltava Polytechnic»	Ukraine	1
Imperial College London	United Kingdom	1
University of Leeds	United Kingdom	1
University of Southampton	United Kingdom	1
University of Surrey	United Kingdom	1
Lyles School of Civil Engineering	United States	1

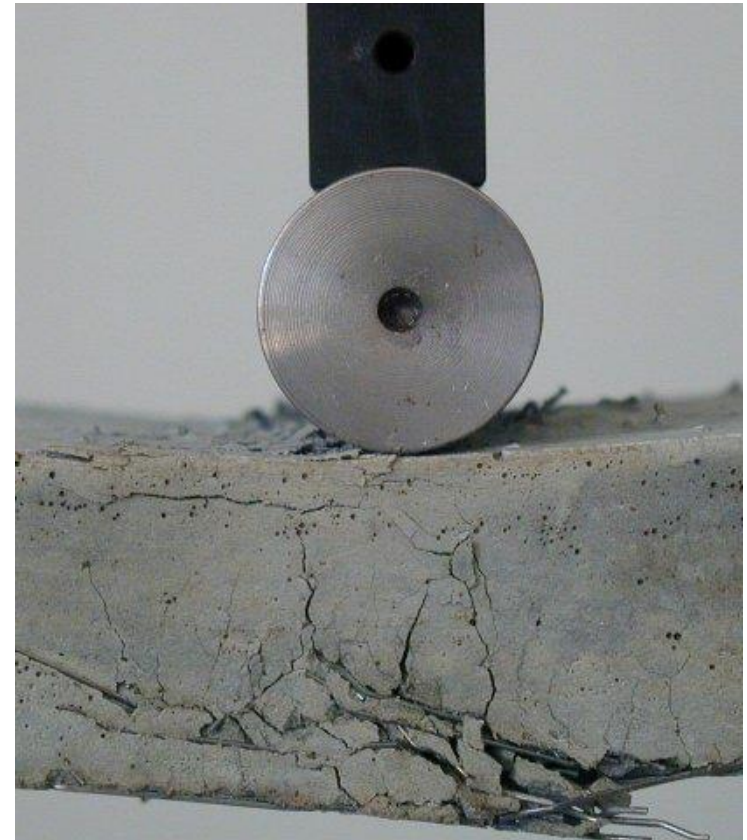
# *fib*-course on „UHPC materials and structures”

## Introduction to UHPC

---

György L. Balázs, Prof., Hon. Pres. of *fib*

Budapest University of  
Technology and Economics (BME)



# UHPC *fib*-course the day before Opening PhD Symp 2024



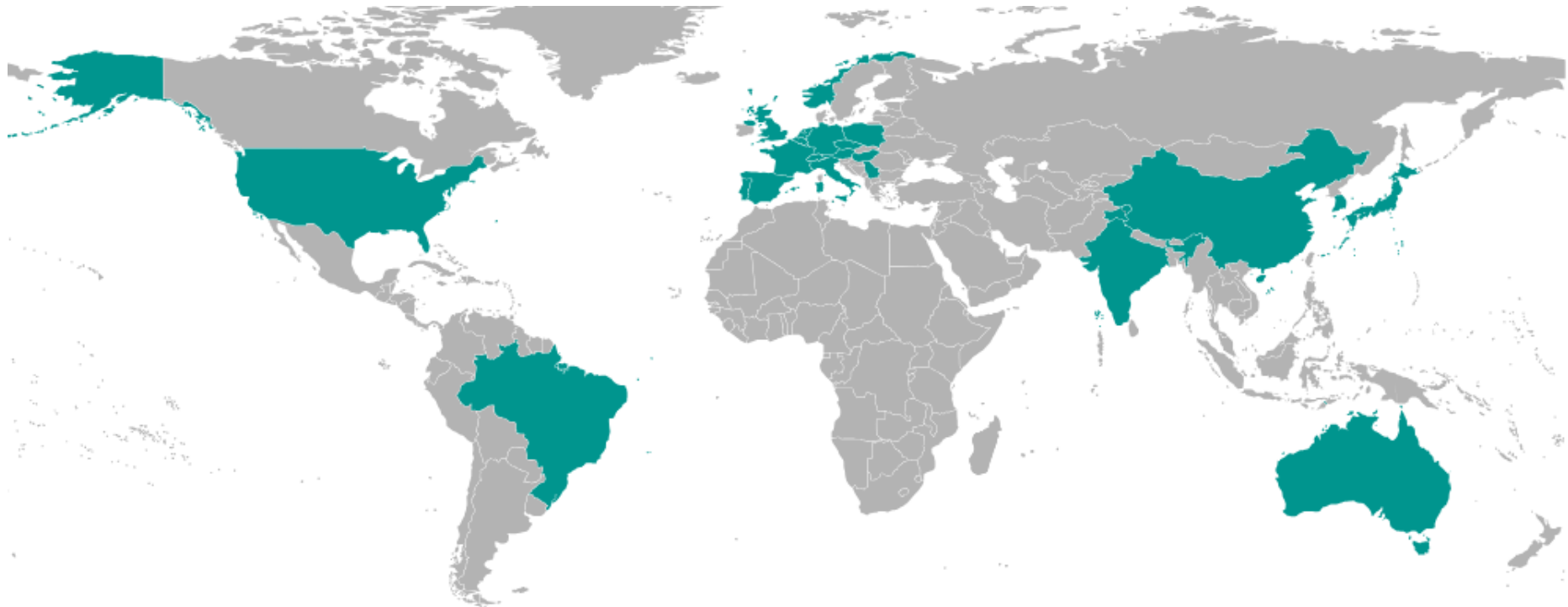
## 15th *fib* PhD Symposium 2024 Budapest - Overview

BME, 1111 Budapest, Műegyetem rkp. 3.



	Tuesday 27 August	Wednesday 28 August	Thursday 29 August	Friday 30 August
09:00				
09:30		Opening ceremony	Technical Sessions	Technical Sessions
10:00				
10:30		Coffee/tea break (30 min)		
11:00				
11:30		Technical Sessions	Technical Sessions	Technical Sessions
12:00				
12:30				
13:00		Lunch (60 min)		
13:30				
14:00				
14:30	<i>fib</i> -course UHPC materials and structures	Technical Sessions	Technical Sessions	Technical Sessions
15:00				
15:30		Coffee/tea break (30 min)		
16:00				
16:30		Technical Sessions	Technical Sessions	Closing Ceremony Prizes and next PhD Symposia
17:00				
17:30				
18:00				
18:30				
19:00	Welcome drink	Free evening	Symposium Banquet with Cruise on the Danube	

## Strong interest from allover the world: 109 participants



Tuesday, 27 August 2024 – Preceding the PhD Symp. 2024 Budapest  
 Budapest University of Technology and Economics (BME)  
 Muegyetem 3, H-1111 Budapest,  
 1st Floor, Room 87 (depends on number of participants)



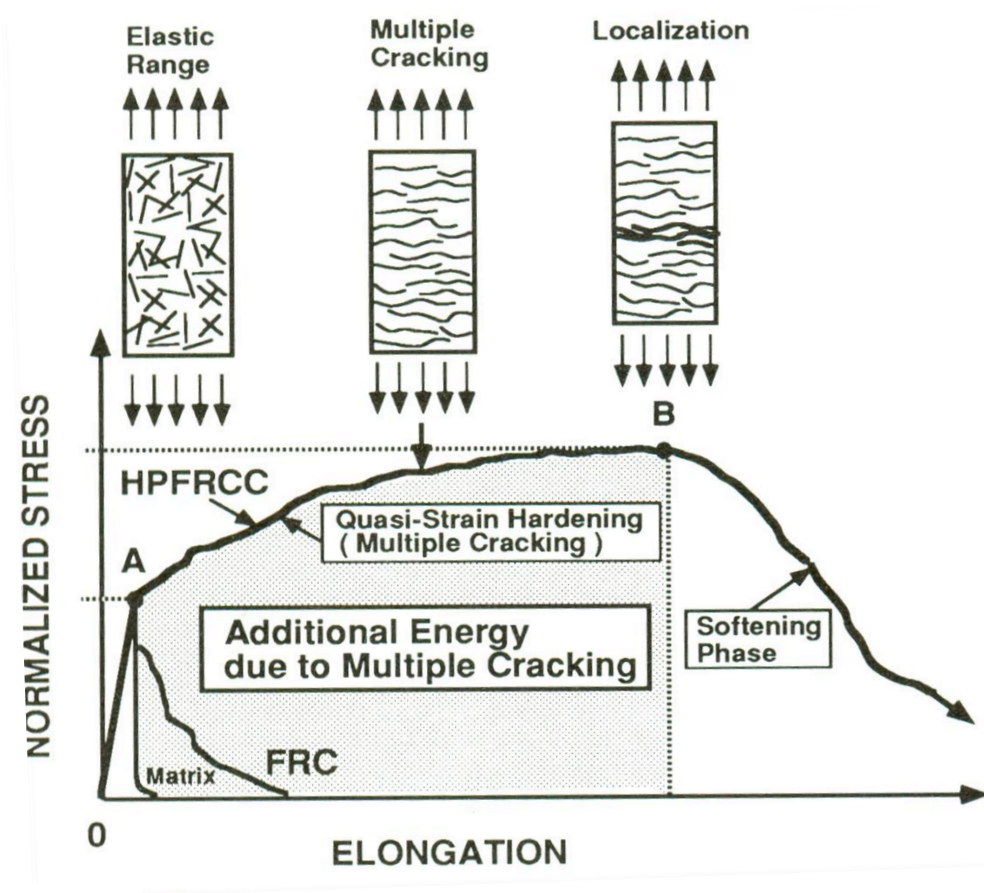
13:00-14:00	Registration	
14:00-14:20	Prof. György L. Balázs (Budapest)	Introduction to UHPC Discussion
14:20-14:40	Dr. David Fernandez-Ordóñez (Lausanne)	Introduction to fib Discussion
14:40-15:40	Prof. Stephen Foster (Sydney)	Exploring the Future of Ultra-High Performance Concrete (UHPC) Bridge Construction: Advancements, Challenges, and its Role in Critical Infrastructure Development  Discussion
15:40-16:00	Coffee break	
16:00-17:00	Prof. Marco di Prisco (Milano)	UHPRC for sustainability: a high-performance material for new and existing structures Discussion
17:00-18:00	Dr. Akio Kasuga (Tokyo)	A challenging concrete structure for the low carbon society Discussion

19:00 – 21:00

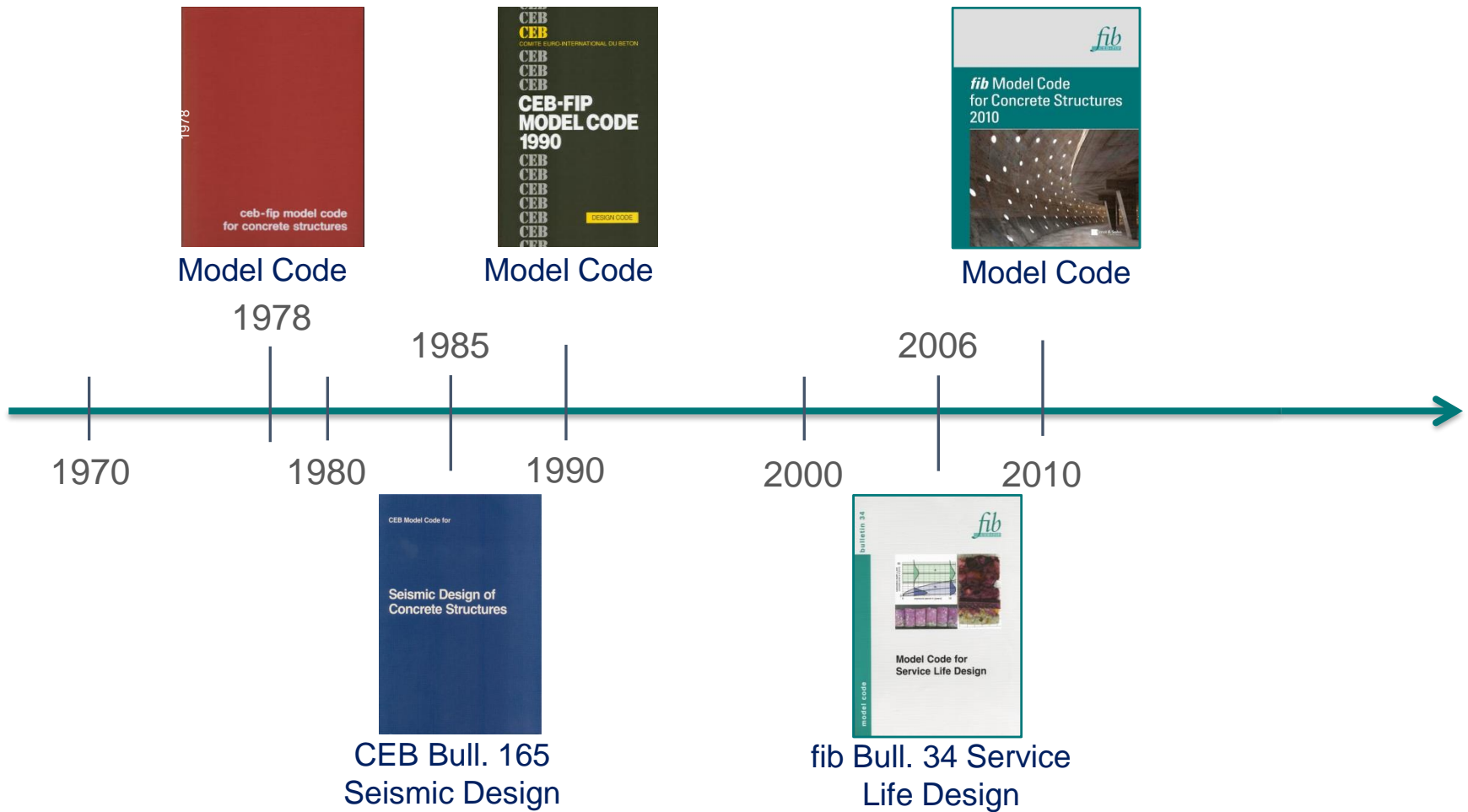
Welcome cocktail of PhD Symposium 2024 at BME



# Naaman, 1996



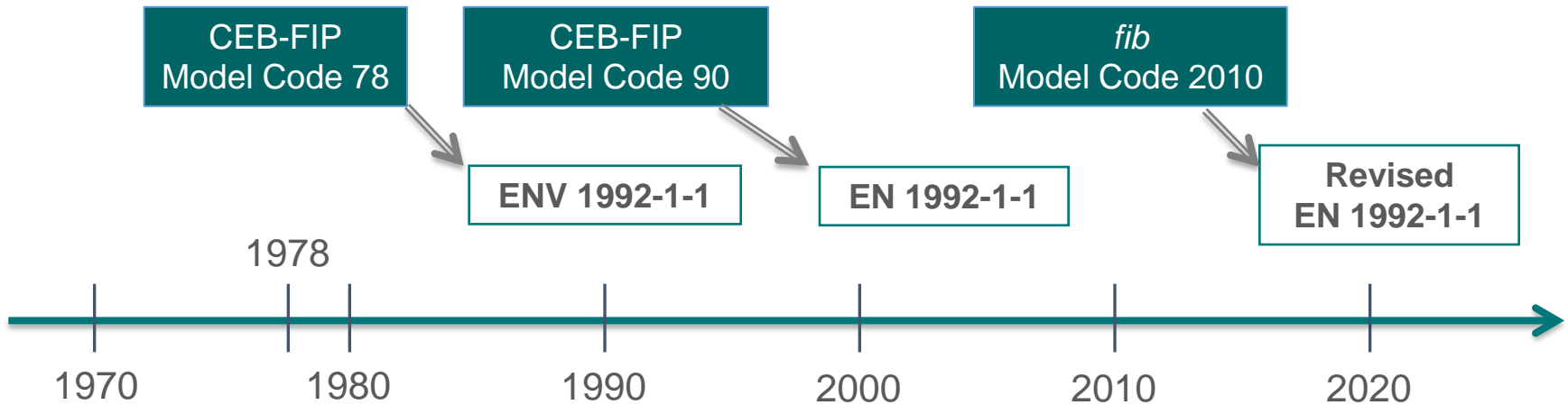
# Impact of *fib* (CEB-FIP) Model Codes



# Impact of *fib* (CEB-FIP) Model Codes



## Strong influence on Eurocodes



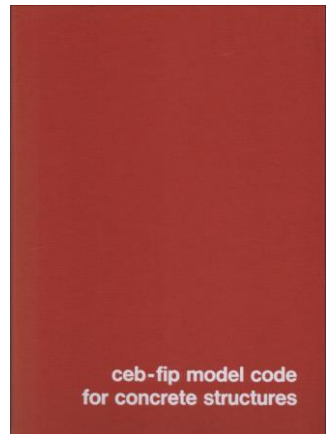
## Pronounced influence on Asian and African Model Codes

**Model Codes are used as reference documents  
both in research and in design**

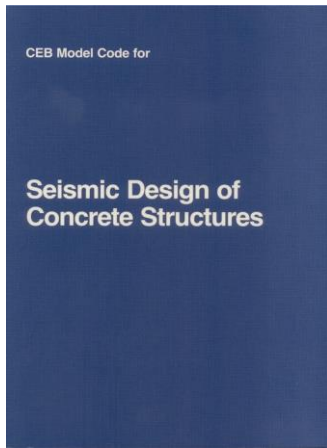
# International Federation for Structural Concrete Fédération internationale du béton



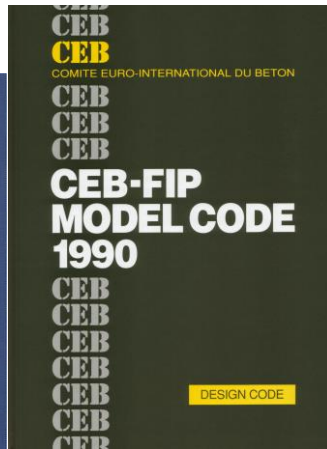
## EVOLUTION OF MODEL CODES



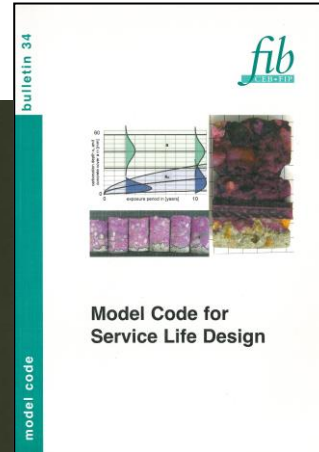
**MODEL CODE 1978**



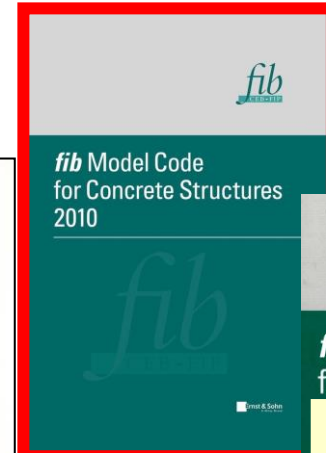
**CEB 165  
Seismic Design**



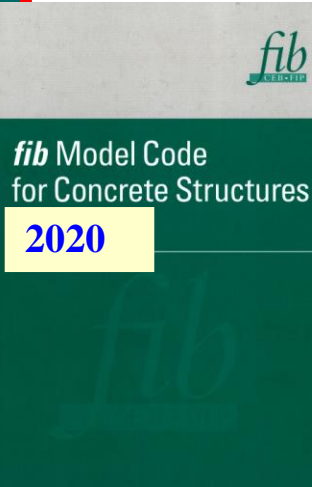
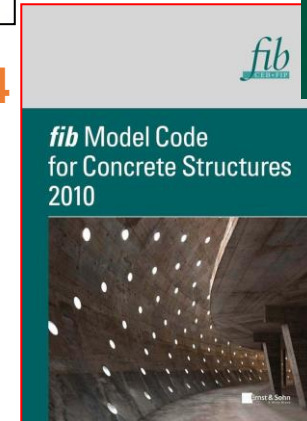
**MODEL CODE 1990**



**BULLETIN 34  
Service Life Design**



**MODEL CODE 2010**



**MODEL CODE 2020**

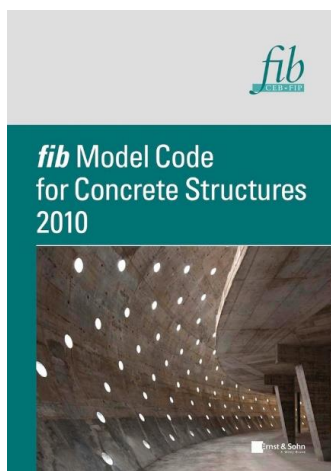
# INTERNATIONAL CODIFICATION



...2020

**MODEL CODE  
2010**

## *fib* Model Code 2010



### **MC2010**

**5Nr Parts**

**10Nr Chapters**

**c. 400 pages**

## *fib* Model Code 2020



### **MC2020**

**9Nr Parts**

**35Nr Chapters**

**Pages ???**



**Greatly  
extended  
technical  
scope  
and  
coverage**

**Supporting fib  
Bulletins to provide  
additional information  
to reduce page count  
in MC2020**

Courtesy Dr Stuart Matthews and Dr Agnieszka Bigaj-Van Vliet

# Central European Congress on Concrete Engineering



## CCC2024 Mikulov

1.	Graz	Austria	2005	September 8-9.
2.	Hradec Kralove	Czechia	2006	September 21-22.
3.	Visegrád	Hungary	2007	September 17-18.
4.	Opatija	Croatia	2008	October 2-3.
5.	Baden	Austria	2009	September 24-25.
6.	Marianske Lazne	Czechia	2010	September 30-Oct. 1.
7.	Balatonfüred	Hungary	2011	September 22-23.
8.	Plitvice Lakes	Croatia	2012	October 4-6.
9.	Wroclav	Poland	2013	September 4-6.
10.	Liberec	Czechia	2014	October 1-2.
11.	Hainburg	Austria	2015	October 1-3.
12.	Tokaj	Hungary	2017	August 31-September 1.
13.	Zakopane	Poland	2022	September 13-14.
<b>14.</b>	<b>Mikulov</b>	<b>Czechia</b>	<b>2024</b>	<b>September 23-24.</b>

CCC 2024  
Final Invitation



14<sup>th</sup> Central European Congress  
on Concrete Engineering  
14. Středoevropský  
betonářský kongres

MIKULOV 2024



CCC MEMBER COUNTRIES





## CONGRESS TOPICS

- **Materials:** Advanced concrete compositions, including alternative binders, passive and prestressed reinforcements, steel, non-metallic, textile reinforced concrete, UHPC etc.
- **Concrete structures:** Buildings, bridges, tunnels, industrial structures, water structures including composite structures: concrete-concrete, steel-concrete, wood-concrete and reinforced masonry structures, etc. – practical examples showing building in current conditions
- **Design methods:** Conceptual design, detailed design, design criteria, modern methods of dimensioning, application of numerical methods and advanced systems incl. BIM, quality control of the design (checking
- **Methods of construction:** cast in situ and precast, composite structures, advanced methods like 3D printing, etc.
- **Durability of structures:** factors influencing durability of structures, durable structures
- **Sustainable structures:** examples of sustainable structures and design for sustainability
- **Rehabilitation of concrete structures:** strengthening, reconstructions, new technologies
- **Life cycle assessment:** prediction methods, exper structures

## **CHALLENGES IN 3D CONCRETE PRINTING**

*György L. Balázs, Marwah M. Thajeel, Sándor Sólyom, Balázs Burai, Ameen H. Chalawi, Rita Nemes, Anna Szijártó, Szögi Tamás, Viktor Hlavicka, András Biró1, Kopecskó Katalin, Kapitány Kristof, Éva Lublós and Salem Nehme* 25

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*Wisam K. Tuama and György L. Balázs*

454



- Magyar csoportkép – nem találtam meg

# CCC2024





# FIB HU – GENERAL ASSEMBLY 2024

## *Webinars summary*

Szabolcs Szinvai

PhD student, Head of *fib* Hu YMG

E-mail: [szinvaiszab@edu.bme.hu](mailto:szinvaiszab@edu.bme.hu)





# CESS seminar: Navigating the concrete structures decarbonization landscape and pathways to achievement



## Event details

Date	23.02.2024
Hour	12:15 > 13:15
Speaker	Prof. Stephen Foster
Location	© GC B1 10 <a href="#">Online</a>
Category	Conferences - Seminars
Event Language	English

# JSCE: Workshop on “Service-life design of reinforced concrete structures”

21<sup>st</sup>

9:00~17:15

## “Fundamental research toward solution of sustainable concrete structures”

State-of-art experimental and numerical researches related to n Europe and Japan will be presented focusing on cracking and durability issues. 9 presentations will be given from European countries while 5 researches in Japan will be introduced. Each presentation has 25 minutes including discussion.



Coordinator: Shingo Asamoto  
(Saitama univeristy)

JSCE Webinar:

Prospective NDT for Civil Engineering Materials  
and Structures

## Prospective NDT for Civil Engineering Materials and Structures

Invited researchers



Prof. Dimitrios Aggelis  
Vrije Universiteit Brussel  
Belgium



Prof. Tomoki Shiotani  
Kyoto University  
Japan

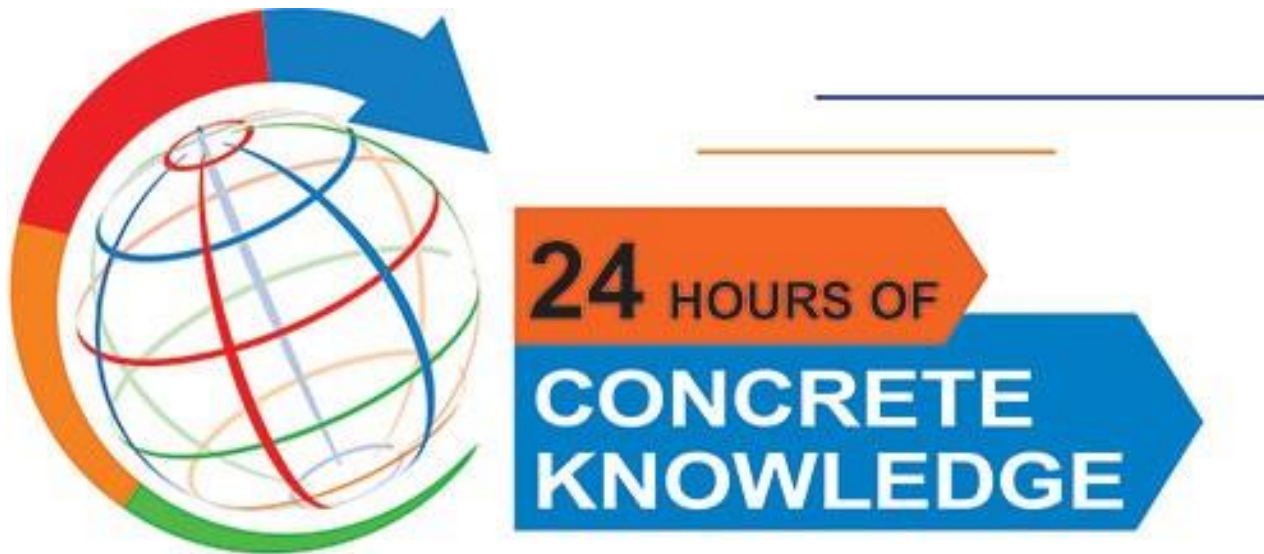
fib Model Code 2020

Agnieszka Bigaj-van Vliet

Performance-Based approach: Working on the future-oriented standardization



# ACI: 24 Hours of Concrete Knowledge 2024



Hosted by the American Concrete Institute • July 9-10, 2024

# JSCE Webinar: 3D Concrete Printing 3D Concrete Printing

Invited researchers



Prof. Viktor Mechtcherine  
TUD Dresden University of  
Technology  
Germany



Prof. Minoru Kunieda  
Gifu University  
Japan

zoom

Date: August 7th 2024

# ACI Code 440.11-22: Code Requirements for Structural Concrete Reinforced with GFRP Bars

**NEW ACI CODE 440.11-22:**  
*Building Code Requirements for Structural Concrete Reinforced w/ GFRP Bars*

**TUESDAY**  
📅 OCTOBER 22, 2024  
🕒 4:00 PM - 5:00 PM EDT

[REGISTER NOW](#)

**aci**  
**HAWAII**

**Khaled Nahlawi, PhD, PE**  
*Speaker*

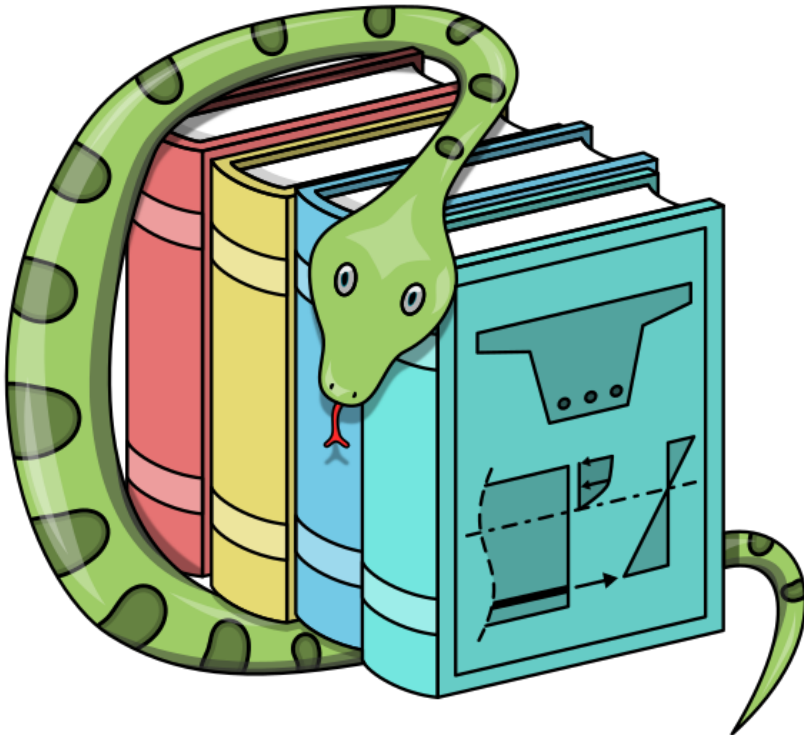
## fib YMG Podcast series



❖ [Playlist](#)



# StructuralCodes documentation v1



- ❖ Documentation
- ❖ Source code
- ❖ Basic material & design codes
- ❖ already developed code
- ❖ open source

Köszönjük az  
együttműködést

Thank you for your  
collaboration