

International Federation for Structural Concrete
Fédération internationale du béton



The *fib* and its Model Code 2020 initiative



Photo ©Loic Gardiol

Harald S. Müller
President of the *fib*
Philadelphia, Oct. 23, 2016

Creation of the *fib*



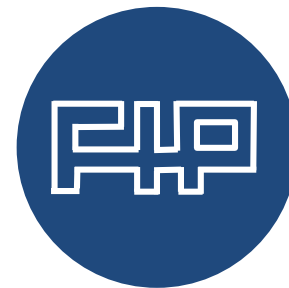
**Euro-International
Committee for Concrete**
Comité euro-internationale du béton
1953



1998



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



Statutory member countries 2016



USA became member of FIP in 1956

Statutory member organisations:

- Precast/Prestressed Concrete Institute (PCI)
- American Segmental Bridge Institute (ASBI)
- Post-Tensioning Institute (PTI)

Delegates:

- L. Sennur (head)
- R. Cox
- T. Neff
- J. Toscas

Mission and objectives

To advance the technical, economic, aesthetic and environmental performance of concrete construction by:

Stimulation of research and synthesis of findings

Transfer into design and construction practice

Publications, conferences, courses, etc.

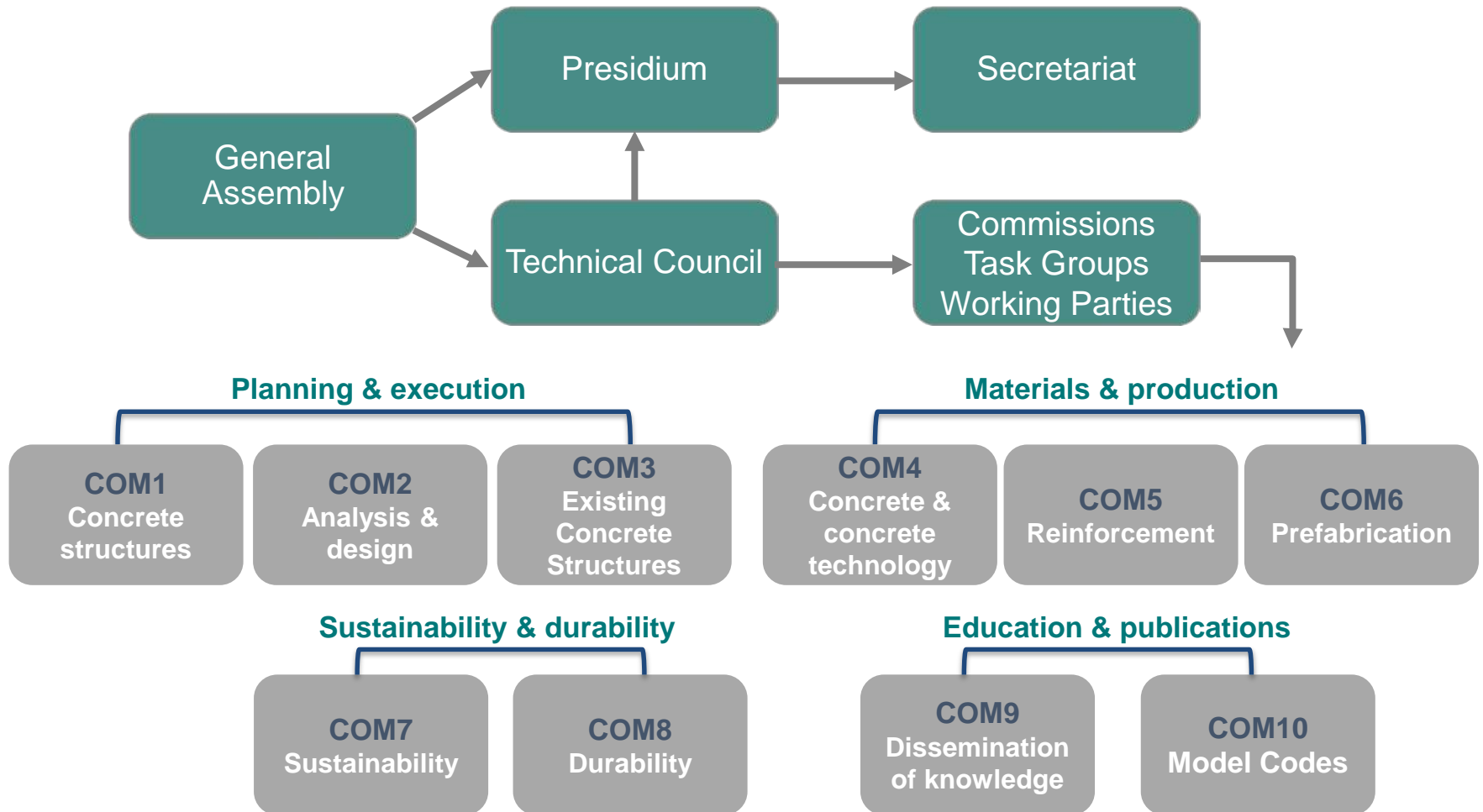
Production of recommendations and codes

Dissemination of information to members

Rio-Andirrio-Bridge
Patras, Greece



The *fib*'s structure



fib presidium members 2015-2016



Harald S. Müller
Germany
President



Hugo Corres
Peiretti
Spain
Dep. President



Gordon Clark
UK
Past President



Josée Bastien
Canada



Frank Dehn
Germany



Marco di Prisco
Italy



Iria Doniak
Brazil



Stephen Foster
Australia



Akio Kasuga
Japan



Aurelio Muttoni
Switzerland



Tor Ole Olsen
Norway

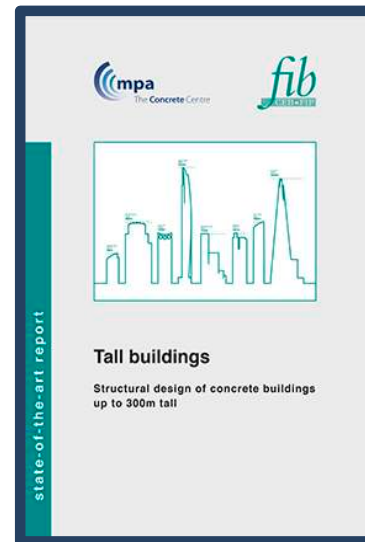


David Fernández-
Ordóñez
Secretary General



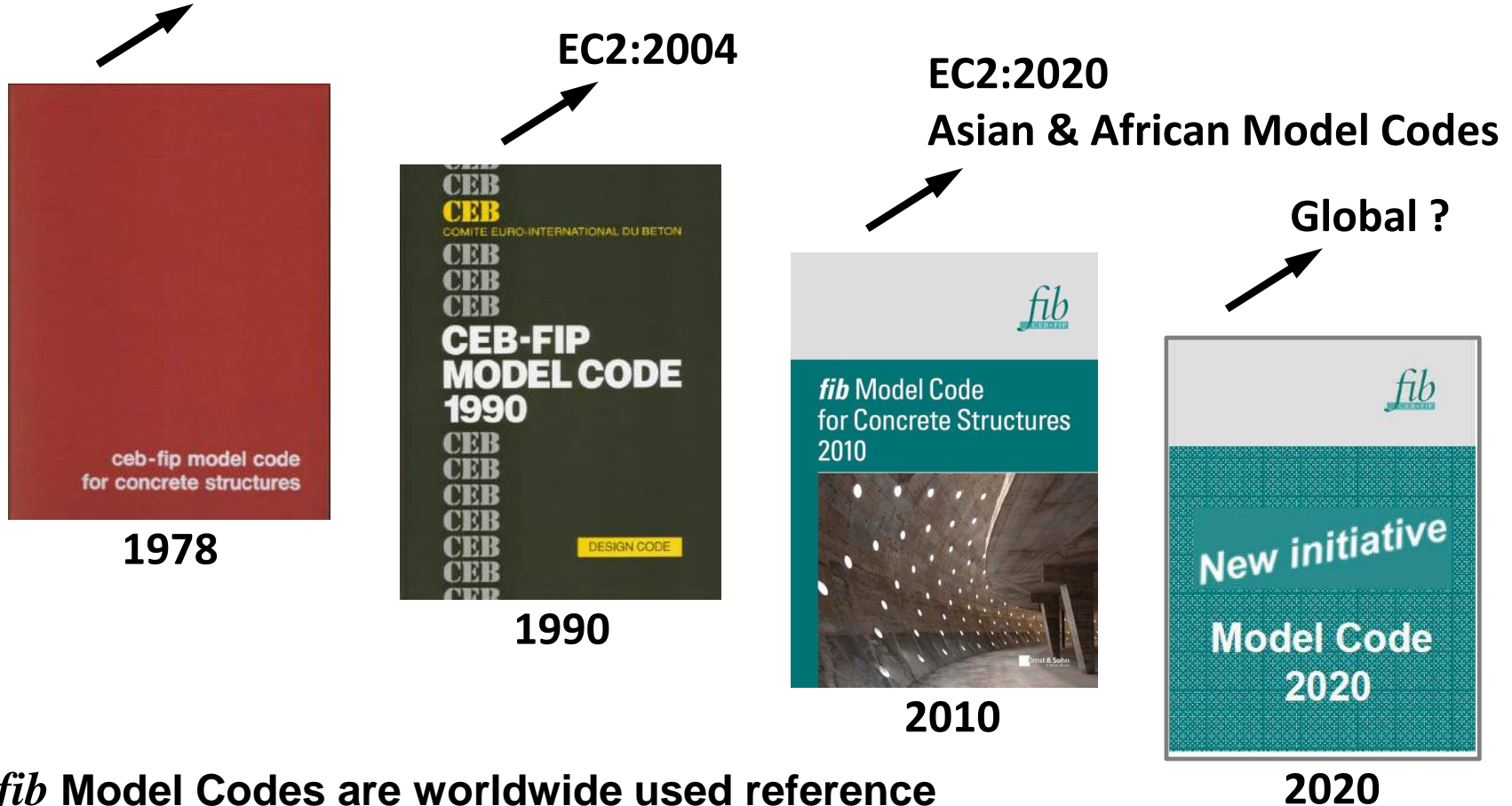
Results of commissions and task groups are published as *fib* bulletins

- Technical reports
- State-of-the-art reports
- Textbooks
- Manuals or guides
- Recommendations
- Model Codes



Evolution and impact of Model Codes

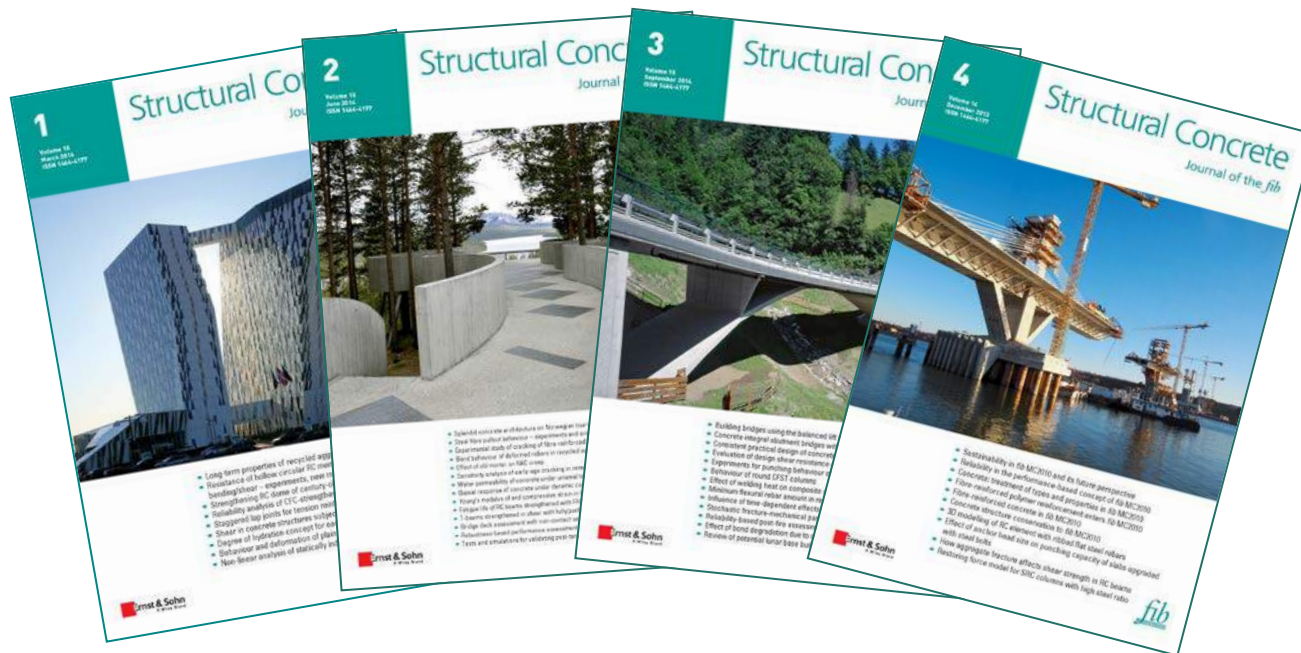
ENV for EC2 (= legal code in 36 countries, 600 Mio. people)



fib Model Codes are worldwide used reference documents for research and structural design

The *fib*'s Structural Concrete journal

Impact factor 2015: 1.023



Staying informed about the *fib*

■ *fib*-news

- Quarterly newsletter published in the *fib*'s *Structural Concrete* journal

■ e-newsletter

- Sent by email every 6 weeks

■ Follow-us on social media

-  LinkedIn
- Facebook



Website: www.fib-international.org
e-mail: info@fib-international.org

Upcoming Symposia and Congresses



2016 PhD Symposium



2016 Symposium



2017 Symposium

12-16 June - Maastricht, Netherlands



fib symposium 2017

2018 Congress

8-12 October - Melbourne, Australia

2019 Symposium

27-29 May - Krakow, Poland

Jointly organized by the
Belgian and the Netherlands
National Member Groups

International cooperation – ACI



Memorandum of cooperation signed in Denver in November 2015

- Promote coordination between the organizations
- Arrange relevant joint activities
- Ensure effective coverage of fields of interest
- Formalize participation of ACI experts on MC2020 initiative



MC2020 Initiative

Overarching goals:

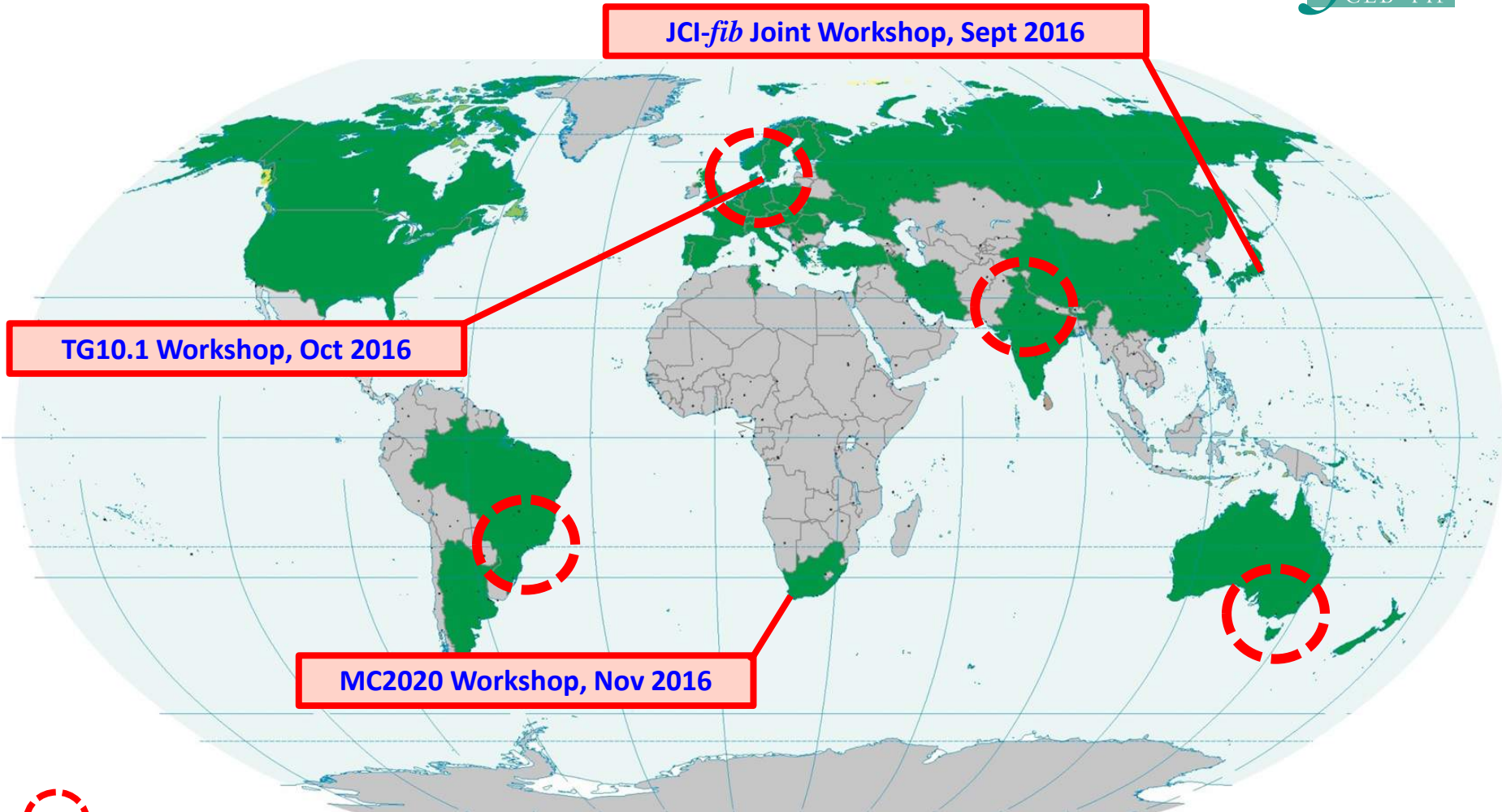
- MC2020 will be a single, merged structural code for new *and* existing structures
- Will be an operational model code and oriented towards practical needs
- Include worldwide knowledge with respect to materials and structural behavior
- Including information reflecting the state-of-the-art, not just “mature” consensus material
- Recognize the needs of engineering communities around the world

Model Code Core Group



Madrid, December 2015

MC2020 Initiative – Global involvement



MC2020 Workshop, Nov 2016

 Other MC2020 workshops in planning

MC2020 Content



- Integrated life cycle perspective
- Holistic treatment of structural safety, serviceability, durability and sustainability
- Fundamental principles and a safety philosophy based on reliability concepts
- Performance based concept to remove specific constraints for novel types of concrete and reinforcing materials

MC2020 Content (cont'd)



- Fully integrated provisions based on generalized models and implementation of levels of approximation approaches applicable for both the design of new structures and assessment activities
- Allows for full advantage of information that can be acquired by testing and monitoring of existing structures
- Addresses robustness and redundancy
- Considers material degradation and/or insufficient or deficient detailing of material and behavior models

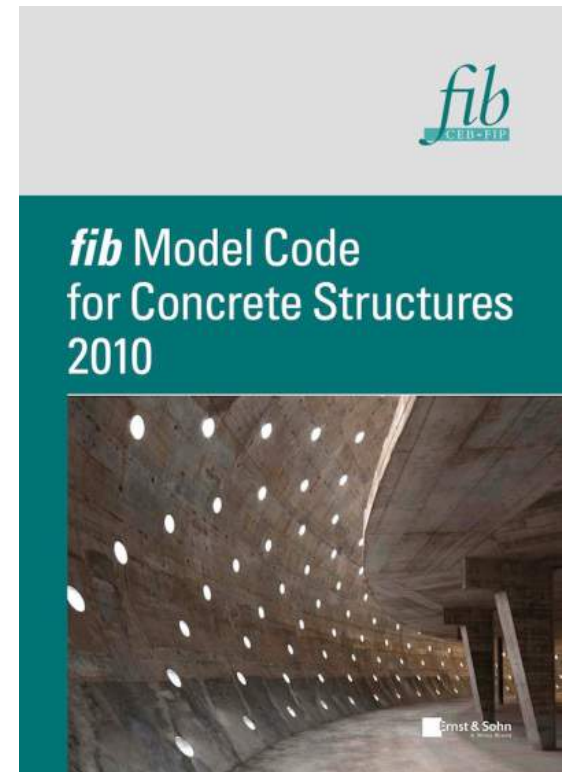
MC2020 Content (cont'd)



- Considers needs for model improvement and treatment of uncertainties in models and model parameters for existing structures and (phased) construction of interventions
- Takes into account through-life management aspects
- Gives attention to new types of concrete/repair materials
- Addresses end-of-service-life issues such as demolition, disposal, recycling, etc.

MC2020 Initiative – Conclusions

- Starting point is the *fib* Model Code 2010
- MC2020 will be developed as a merged structural design code for new and existing structures
- MC2020 will reflect the state-of-the-art, not just “mature” consensus information
- MC2020 can be delivered in a different/updateable format



You are welcome to contribute!

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Thank you!



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