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Acknowledgements

We are grateful for permission to use the following photographs in this publication

page 12 - World Building Congress 2019 – Hong Kong Polytechnic University
page 15 - Western Sydney University – Srinath Perera
page 15 - CIB Garden party 2019 - Derek Clements-Croome, CIBSE
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Welcome to this annual report of the CIB, the global network for research and innovation in construction and the built environment.

As President for the three years from 2019-2022 it is my great honour to lead the organisation along my fellow Officers and the members of the Board. Due to the global pandemic it has been a traumatic year for so many people, and I would like to express my heartfelt thanks and appreciation for their hard work and commitment to progress our objectives through these difficult times.

When I became President at the Hong Kong World Building Congress in June 2019, I set out three priorities to re-energise CIB:

1. Establishing a strong and effective member service team based in Ottawa;
2. Reinforcing the place of quality, globally collaborative research at our core;

On the first priority I have been delighted with how Don Ward has settled into the CEO role and Michael and Debbie complete a strong and effective secretariat team as targeted. We have a new website with more to come, a new newsletter and marketing collateral, and new IT and finance systems, and the positive ‘service’ attitude has been remarked on by many.

On the second priority, Kalle Kähkönen and Michael Behm have led much progress, communication is much more positive and new initiatives in hand include a new global network for “Early Career Researchers” and a number of Commissions held webinars, often addressing the challenges presented by the pandemic, which have been excellent with many hundreds of people able to attend. A number of our most active Student Chapters have held excellent events, and we have had our first joint consultative sessions of the Board with them and with Coordinators. A special welcome to several new Coordinators who have stepped up to lead their Task Groups or Commissions, and I hope you will lead the way in delivering value not only for your fellow Commission and Task Group researchers but more widely for Members, Student Chapters, and Early Career Researchers. You can read more about all these activities in the rest of this report.
On the third priority, we had a slight decline in membership last year. Our response has been to improve the value proposition for existing members. To communicate and promote this proposition better has to be a priority over the next year now that our other two priorities have been addressed. We are also implementing a strategy to diversify our income, to reduce our dependence on membership subscriptions by growing third-revenue under the leadership of Vice President Mark Hastak, to whom I am most grateful.

Finally, planning for World Building Congress 2022 is well underway in the hugely capable hands of Ron Wakefield of RMIT and his team. We have no crystal ball about how easy global travel will be in June 2022, so we are planning for a hybrid event of face-to-face and online participation, with the highest ever participation from students and early career researchers. I do hope you will plan to join us, already this looks like it will be an outstanding event.

I look forward to working together in 2021-22 and wish all CIB participants every success.

Professor Keith Hampson
CIB President
June 2021
CEO’s Introduction - Impact of the global pandemic

Thank you to the Board for appointing me as Chief Executive in March 2020. I have thoroughly enjoyed my first year and been deeply impressed with the commitment of the Officers, Board, Commission Coordinators, Student Chapter committees and all the others who put in so much time and effort to deliver value for our membership and to advance the cause of research and innovation in our sector.

The timing arguably proved to be inauspicious, with many parts of the world imposing lockdowns from March onwards to tackle the spread of the Covid-19 virus. As of the time of writing I have therefore been unable to travel at all, and have not met anyone in CIB face-to-face. Thanks to zoom I have made many new friends, as well as re-engaging with some old ones, but there is nothing like real contact and I can only hope that the next year will slowly see the re-emergence of conferences and other network activities that will allow us all to rediscover the value of being in the same room as one another. I am sure we all look forward to WBC2022 for this reason as well.

Of course the impact goes far beyond restrictions on travel. Our heart goes out to all those who lost loved ones to the virus. And so many of our members have been hit financially, budgets are constrained, the value of travelling to conferences is being questioned like never before, challenging us to evolve our working methods, and most importantly, challenging us to improve our value proposition so that members continue to recognise the unique value of CIB and are willing to continue to fund it.

Thank you again for the warm welcome and encouragement I have received from all quarters, and I look forward to working with you all in the next year to advance our cause.

Don Ward
CIB Chief Executive
June 2021
“Collaborating for Innovation in the Built Environment”

The purpose of CIB (Conseil International du Batiment) is to provide a global network for international exchange and cooperation in building and construction research and innovation. This global network supports an improved building process and enhanced performance of the built environment.

Our scope covers the technical, economic, environmental, organisational and other aspects through all stages of the built environment life cycle. It addresses all steps in the process of basic and applied research, documentation and transfer of the research results, and the implementation and actual application of them, including teaching and education.

Members in 50 countries around the world.
Membership

CIB has three categories of membership: Full, Associate, or Individual, and which one organisations choose depends on the level of participation required across the breadth of our research programme. We welcome applications from those with an interest in research or innovation in universities, research or technical organisations, funding bodies, industry and other practitioners from all parts of the world.

CIB’s subscription fees are available to view cibworld.org/fee-system-and-how-to-join. Discounts are available for those from Low- or Middle-Income Countries.

Activities and Services

This report provides an overview of the main activities and benefits which CIB provides for our members. These include:

- Working Commissions
- Student Chapters
- Early Career Researchers (ECRs) network
- Conferences and Publications
  - Conferences and Proceedings
  - 30 partner journals
  - Research Roadmaps and other reports
  - ICONDA®CIBlibrary database
  - Webinars
  - ‘CIB in Conversation’

“Through my association with the CIB since 1994, I have developed the very best relationships with those I have collaborated and worked with over the years”

50 Countries
95 Organisations
200 Individual Members
3000 Experts
35 Working Commissions
18 Student Chapters
CIB Commissions

These are the core of our work. A CIB Commission is a worldwide network of experts in a defined scientific area who meet regularly and who collaborate in international projects and exchange information on a voluntary basis. Working Commissions have a long-term ‘permanent’ status and a broader programme, scope and objectives, whilst Task Groups have a limited lifetime and objectives.

In normal times most Commissions have annual plenary meetings and produce publications and other events of various kinds including research roadmaps and webinars.

The full list of Commissions is shown in the table, much more information on every Commission is available cibworld.org/commissions. Commissions are open to all members with an interest and passion for their theme, and in particular ‘Early Career Researchers’ are welcomed to participate. Many Commissions’ activities were affected by the global pandemic in 2020-21, but the updates below show plenty of activity, in preparation for the World Building Congress in Melbourne in June 2022, WBC2022, for which calls for abstracts have been issued – see also page 18 of this report.

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<th>CIB WORKING COMMISSIONS</th>
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<tr>
<td>W014 – Fire Safety</td>
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<td>W023 – Wall Structures</td>
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<td>W040 – Heat and Moisture transfer in Buildings</td>
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<td>W055 – Construction Industry Economics</td>
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<td>W056 – Sandwich Panels (joint-CIB-ECCS Commission)</td>
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<td>W062 – Water Supply and Drainage</td>
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<td>W065 – Organisation and Management of Construction</td>
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<td>W069 – Residential Studies</td>
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<td>W070 – Facilities Management and Maintenance</td>
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<td>W078 – Information Technology for Construction</td>
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<td>W080 – Prediction of Service Life of Building Materials and Components</td>
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<td>W083 – Roofing Materials and Systems</td>
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<td>W086 – Building Pathology</td>
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<td>W089 – Education in the Built Environment</td>
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<td>W092 – Procurement Systems</td>
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<td>W096 – Architectural Design and Management</td>
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<td>W098 – Intelligent and Responsive Buildings</td>
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<td>W099 – Safety Health &amp; Wellbeing in Construction</td>
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<td>W101 – Spatial Planning and Infrastructure Development</td>
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<td>W102 – Information and Knowledge Management in Building</td>
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<td>W104 – Open Building Implementation</td>
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<td>W107 – Construction in Developing Countries</td>
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<td>W110 – Informal Settlements and Affordable Housing</td>
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<td>W111 – Usability of Workplaces</td>
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<td>W115 – Construction Materials Stewardship</td>
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<td>W116 – Smart and Sustainable Built Environments</td>
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<td>W117 – Performance Measurement in Construction</td>
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<td>W119 – Customised Industrial Construction</td>
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<td>W120 – Disasters and the Built Environment</td>
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<td>W121 – Offsite Construction</td>
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<td>W122 – Public Private Partnership</td>
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<td>W123 – People in Construction</td>
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<th>CIB TASK GROUPS</th>
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<td>TG79 – Building Regulations and Control in the Face of Climate Change</td>
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<td>TG81 – Global Construction Data</td>
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<td>TG87 – Urban Resilience Benchmarking and Metrics</td>
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<td>TG88 – Smart Cities</td>
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<td>TG91 – Infrastructure</td>
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<td>TG92 – Wearable Sensor Technology</td>
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<td>TG95 – Professionalism and Ethics in Construction</td>
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<td>TG96 – Accelerating Innovation in Construction</td>
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W055 Construction Industry Economics
A webinar organised under the auspices of W55 was the vehicle for a debate concerning Construction’s Vital Role in post-Covid-19 Economic Recovery Plans. Its focus was on the significance of the pandemic for the industry and the challenges encountered in planning for recovery as stimulating construction activities must be at the heart of economic recovery plans. A panel of expert speakers from a range of countries made presentations on their government’s recovery plans and took part in an open discussion with the audience. The main event for the Commission in 2021 will be its participation in the CIB International Conference on Smart Built Environment in Dubai in December, when one of the themes will be the economics and management of smart Built Environment.

W078 Information Technology for Construction
The Commission held its 37th international conference in August 2020 at the University of São Paulo in Brazil. The conference was joint with the 18th International Conference on Computing in Civil and Building Engineering (ICCCBE). Due to the Covid-19 pandemic the conference had to be held in a virtual mode, but still drew a large and international audience. Professors Eduardo Toledo Santos and Sergio Scheer chaired the conference and arranged presentation sessions in Pecha-Kucha style across all major time zones so the conference could be partially attended in normal working hours by attendees anywhere in the world. For 2021 the 38th international conference is planned for Luxembourg from 13-15 October to be held jointly with the Linked Data in Architecture and Construction (LDAC) conference. Dr Sylvain Kubicki and Prof Yacine Rezgui will be chairing the conference, hopefully in face-to-face mode.

W086 Building Pathology
In 2020 CIB W086 published its research Roadmap (Publication 419 available from cibworld.org/roadmaps. The annual meeting was held online during DBMC (organised by Polytechnic University of Catalonia, Barcelona, Spain) as a joint meeting with CIB W80. Contributions to the New trends on Building Pathology were collected and are being finalised for publication in 2021 with a CIB webinar, and a special issue with a CIB Partner Journal on Building Pathology is planned.

W089 Education in the Built Environment
Mark Shelbourn has replaced Professor Mel Lees as co-coordinator following his retirement, and the Commission has committed to a session for WBC2022 in Melbourne, and partnered with Western Sydney University’s CIB Student Chapter for the CIB Sebestyén Future Leaders Award. Future Plans include virtual events with other construction education groups such as Associated Schools of Construction, American Council for Construction Education, Council of Heads of Built Environment and others.

W096 Architectural Design and Management
Since launching its Research Roadmap in 2019, the Commission has focused on partnership. Having met online with the Architectural Research Centers Consortium, W096 will join them in a workshop at their conference with the European Association of Architectural Education in Miami in March 2022. We have also agreed to support the CIB International Conference on Smart Built Environment in Dubai in December 2021. A significant focus will be WBC2022 in Melbourne, where we will join with W101 and TG91 for an interactive session on Architectural, Spatial and Infrastructure Planning, and the Fourth Industrial Revolution, and a proposal is in preparation for an edited book on Architectural Design and Management in the digital age.
W098 Intelligent & Responsive Buildings
In 2020, the Commission in collaboration with CIBSE Intelligent Buildings Group organised six webinars events which attracted on average over 100 worldwide participants to interact with transdisciplinary industry-academia expert panels. Papers from the CIB WBC 2019 *Constructing Smart Cities* are being published in the Journal of Intelligent Buildings International Special Issue 13.1. Further events on Green infrastructure and resilient cities, rating methods for building intelligence, supply and procurement of intelligent buildings are planned for 2021.

W099 Safety, Health, and Well-being in Construction
The community has remained strong through the pandemic, which has itself been of interest to those of us concerned with health and wellbeing and how this has been managed in the global construction industry. We were able to go virtual for our annual conference in 2020, shared with W123 and hosted by Glasgow Caledonian University, which saw delegates from across the world reconnect with W099 colleagues in these difficult times. W099 and W123 were also happy to support CIB in the piloting of a new process for publishing conference proceedings including Scopus indexing on the CIB website. Our 2021 conference is already in planning, and will be a blended model, hosted again in Glasgow by GCU, able to support real life and virtual connections. We continue to partner with W123, People in Construction, at our conferences and other activities, and are already looking ahead to WBC2022 where we will host several sessions.

W102 Information and Knowledge Management in Building
Due to the pandemic, meetings were held virtually with members from UK, USA, South Africa, and Australia engaged. Two sessions are proposed for WBC2022, in partnership with other Commissions, on the topics of Learning from the pandemic for a smart and sustainable future and Managing risk through knowledge management. Professor Ellyn Lester was appointed joint co-ordinator to work with Dr Subashini Suresh, and a survey is planned on the use and effectiveness of techniques and technologies for managing Covid-19 related knowledge. There have been publications related to Covid-19 by the members along with managing knowledge in the context of smart cities.

W104 Open Building Implementation
Prof Amira Osman collaborated with the International Network for Appropriate Technology (INAT), chaired their local committee for the *9th International Conference on Appropriate Technology*, and edited the proceedings. The *9th ICAT Open Building And Appropriate Technology Workshop* session was conceptualised and moderated by Prof Osman and Prof Jia Beisi (Hong Kong). We had 36 people in attendance from around the world. All the presentations are available on YouTube - [https://bit.ly/3zOQUfE](https://bit.ly/3zOQUfE).

W112 Culture in Construction
The Commission continued its participation in the joint CIB TG096 conference now to be held in December 2021 in Dubai, and will organise a joint-session at WBC2022. The Commission focuses on research into the ‘soft factors’ and various contemporary issues such as digital transformation and unforeseen contingencies in the construction industry, which are becoming of increasing importance in how the construction industry functions and will be organised – and recognizing that ‘construction is a people’s business’.

W113 Law and Dispute Resolution
**W116 Smart and Sustainable Built Environments**
The Commission's research journal, *Smart and Sustainable Built Environments* published by Emerald has a new editor, Dr Farzad Pour Rahimian, and has grown steadily to 4-5 editions a year with improved ratings. The Commission organises the *Smart and Sustainable Built Environment* (SASBE) conference, which was previously held in China, Australia, Brazil, The Netherlands and South Africa. SASBE2021 will be hosted by the Netherlands and will be held in association with the Ecocity World Summit 2021 on 27-29 September 2021. As of March 2021 450 abstracts have been received so this promises to be a popular and useful conference.

W116 will support CIB TG96 with the *CIB International Conference on Smart Built Environment* in Dubai in December 2021 and are planning to co-host the session titled *Learning from the pandemic. for a smart and sustainable future* at WBC2022. At the same conference, W116 is working with the UN’s One Planet Sustainable Buildings and Construction Programme (OPN SBC) to present a session on Circular Built Environments.

**W117 Performance Information in Construction**
The Best Value Approach (BVA) information research has moved from Arizona State University to the SKEMA Business School Project Management program. W117 developed a new project management model which mitigates risk instead of passing or sharing risk. Research tests led to the creation of BVA 3.0 and a new vendor centric BVA book. W117 Journal (*cibw117.org*) published twice with nine papers, increasing reads on papers from 18.5K to 26.4K. For the latest BVA books, research and events see *pbsrg.com* resources and to receive W117 news and updates see *pbsrg.com/register/?lid=1*.

**W120 Disasters and the Built Environment**
W120 has focused on communication and outreach and developing a Research Roadmap. The Joint Coordinators host a popular podcast *Disasters: Deconstructed* that is now in Season 4. As a joint initiative between W120 and the podcast, a livestream event took place in January 2021 which reflected on recent developments in the field of disasters and the built environment from various disciplinary perspectives. In addition, an online survey was conducted to investigate the pedagogies for disaster risk reduction in the higher education environment, to enhance understanding of what is being taught regarding disaster risk reduction as well as natural hazards and human-induced threats – and how – to future built environment professionals. This survey and smaller focus groups will inform the Research Roadmap to be launched at WBC2022.

**W121 Offsite Construction**
In 2020 a Special Issue of Construction Innovation entitled *Offsite Manufacturing: Industry. Transformation and Future Landscape Development* was supported by W121 and its Guest Editorial can be seen at [https://doi.org/10.1108/CI-01-2021-154](https://doi.org/10.1108/CI-01-2021-154). The Commission also supported the 2nd International Conference on Construction Futures (ICCF), University of Wolverhampton, UK, in July 2020, its report is available on CIB’s website. The Commission is planning a session at WBC2022 entitled *Offsite Construction: Empowering Future Resilience and Capability*, for which a call for papers has been issued. Finally a new Research Roadmap is in development.

**W122 Public Private Partnership**
The Commission attracted, reviewed, and processed accepted paper submissions to the Special Issue in the CIB-Recognised BEPAM journal on *PPP - Theory vs Practice: Charting New Trajectories*, this was guest edited by Boeing Laishram and Ganesh Devkar and published in 2021: *Built Environment Project and Asset Management: Vol. 11 Iss. 1 | Emerald Insight*. Planned events include as co-organiser and supporter in the PPP Workshop on Public Value in Public Private Partnerships planned as a three-day industry event in virtual mode in Sydney, Australia in mid-2021, and Special Sessions at the 2022 CIB World Building Congress CIB in Melbourne, Australia, including a session to update its Research Roadmap and to feed into a book to be edited by Yongjian Ke to capture the accumulated body of knowledge in PPP Project Management.
W123 People in Construction
In 2020 the previous task group was upgraded to a full Working Commission. W123 continues to partner with W099, Safety, Health and Wellbeing in Construction, on annual conferences, and in 2020, an online conference was hosted by Glasgow Caledonian University with proceedings published by CIB in early 2021 with Scopus indexing. Another online conference is planned in 2021 and a meeting will be held at the CIB World Building Congress in 2022.

TG81 Global Construction Data
In 2020 this task group published the book ‘Global Construction Data’. Future plans include to establish and maintain a global construction database of relevant statistical information from CIB members that will be published annually. Other plans are to prioritise research in the area of global construction data, work on the publication of books, hosting of workshops and seminars to discuss data sources – what construction data is being used to inform policy and practice? What construction data is adding value? Part of the group plans is also to organise regional comparisons to understand and benchmark the global construction industry.

TG91 Infrastructure
At WBC2019 the task group revised its focus to sustainable infrastructure, and has subsequently focused on ‘Electro-Mobility and Infrastructure’. At WBC2022 TG91 will moderate a session on this topic including the presentation of leading research outcomes.

TG93 Building Zero Energy Settlements
W119 Customised Industrial Construction
Several CIB Commissions including W119 and TG93 focus on highly innovative technology such as, ICT, sensory, advanced production, robotic construction, medical technology, and green building technology, that are all imperative for the future sustainable development of our built environment. In order to promote visibility and impact of these groups it is proposed to combine these Commissions, and their scope is likely to include inter alia: Resilient Robot Oriented; Design; Advanced off/on-site construction; Construction robotics; Cyber-physical system for construction; Management for automated construction; Assistive robots in construction; Advanced city transformation using ICT technologies; Robot-assisted home.

CIB TG96 Accelerating Innovation in Construction
The focus in 2020 was to organise a conference in Dubai to coincide with EXPO 2020. Some 11 Commissions were attracted to participate in the conference, as can be seen from other summaries in this report. The conference was advertised and received over 40 abstracts, but unfortunately Covid-19 forced its postponement until travel restrictions are lifted. The plan is now for the CIB International Conference on Smart Built Environment to be held from 14-16 December 2021 with a blended delivery, virtual and in person in Dubai.

TG88 Smart Cities
This task group is planning webinars and sessions for WBC2022 with a focus on how technologies can help sustainable and resilient development as well as improving the quality of life, with real-life cases.
CIB Student Chapters and Awards

A CIB Student Chapter may be a local, regional, national or even international organised group of students, provided that those students are enrolled at CIB Member universities or other institutions and preferably have an identifiable common interest in the work of one or more CIB Commissions or Priority Themes. CIB has 18 Student Chapters, some highlights of their activities are presented here, for more detail on any of the Chapters please see cibworld.org/student-chapters.

### ACTIVE STUDENT CHAPTERS 2021

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<td>Curtin University, Australia</td>
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<td>Hong Kong Polytechnic University, China P.R.</td>
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<td>University of Hong Kong, China P.R.</td>
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<td>Huddersfield University, UK</td>
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<td>University of Lisbon, Portugal</td>
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<td>Massey University, New Zealand</td>
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<td>Middle East Technical University (METU), Turkey</td>
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<td>Hungarian CIB Student Chapter</td>
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<td>Wo80 Prediction of Service Life of Building Materials and Components Student Forum</td>
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### CIB Sebestyén Future Leaders Award

We now hold three competitions for Student Chapters awards, two of which are new initiatives for 2021. The CIB Sebestyén Future Leaders Award is named after the late former CIB Secretary General Prof. Gyula Sebestyén (1980-1993) and dates from 2002. The Award is worth up to 2500 Euros and a call for proposals is issued towards the end of the calendar year.

In April 2021 we were delighted to announce that after receiving four very strong applications all very worthy of funding, indicating renewed interest in the global network of Student Chapters, the 2021 winners of this award were Hong Kong University. See overleaf for more information of the winning project, we look forward to hearing the results including at WBC2022.
This project aims to propose a prototype communication media model specifically tailored to the construction industry and the academics whose needs are multi-scaled demonstration, immersive information transmission and semi-formal networking. This new model was constructed with the purpose of enhancing visual and auditory perception and experience, triggering positive and efficient conversations between researchers and practitioners, as well as establishing semi-formal social connections. It would help rebuild a resilient and sustainable communication platform for linking the academics and industry people no matter in the Covid-19 and post-Covid-19 era.

**Concept Model**

![Concept Model Diagram]

**CIB Best Dissertation Award**

The CIB Best Dissertation Award/s is for the best Doctoral thesis from within the CIB Student Chapter network. More details and the call for entries will be available later in 2021. The Award/s consist of a Certificate and a cash fund of 2500 Euros.
Student Chapter funding competition 2021

Our third competition in 2021 was a call for proposals for funding for new activities by Student Chapters, with a total budget of 10,000 euros. The successful Student Chapters announced in May 2021 were as follows:

2021 STUDENT CHAPTER FUNDING

Two collaborative proposals from student chapters were awarded funding for 2021 as follows, more information in these projects, their research methodologies and dissemination plans are available at https://cibworld.org/student-funding-awards-announced.

Proposal 1 (RMIT University, Hong Kong Polytechnic University, Massey University, Tsinghua University, University of Hong Kong, Western Sydney University)

The research aims to better understand stakeholders’ perceptions of current Higher Degree by Research (HDR) training programs and their expectations for potential improvement.

Proposal 2 (University of Salford, Politecnico di Milano)

The aim is to link the perspectives of ECRs, practitioners, and entrepreneurs to the ongoing global conversations on post-COVID evolution in the construction industry.
Other highlights from Student Chapters in 2020-21

**Massey University**
Established in 2020, in its first year it organised two online collaborative research workshops with RMIT and Hong Kong Polytechnic Student Chapters, and collaborated with others to develop a proposal for CIB funding. Other activities in 2021 include collaborative webinars with other CIB chapters; Industry-academic Roundtable; and a research competition Three Minute Thesis.

**Politecnico di Milano**
The Architecture, Built environment and Construction engineering Department at the [Polytechnic of Milan](#), an Associate Member of CIB, is reinvigorating its Student Chapter. Objectives include to encourage the development of research interests among its members, and to facilitate and promote joint research and academic exchange with other Student Chapters and the global research community.

**RMIT University**
Established connections with other active student chapters globally, and worked with Massey University to deliver a collaborative research seminar on Sustainable Built Environment. They are currently working closely with RMIT’s CIB World Building Congress 2022 committee to plan a series of Student Chapter activities for WBC2022. They have also proposed a collaborative study that aims to investigate the performance of the PhD training programs and the potential improvement that can better facilitate ECRs’ future career in both academy and building industry. In 2021, the Student will focus on delivering research capability training sessions to support both HDR students and undergraduate/Masters students conducting research projects.

**University of Hong Kong**
This Student Chapter has three goals: linkage among the Department of Architecture, Real Estate and Construction, as well as Urban Planning and Design in the Faculty of Architecture; Collaborative international research; and a series of global research-sharing sessions. Key activities in 2020-21 included the Online Research Postgraduates (RPGs) Welcome Party; CIB Young Scholars’ Research Efforts Sharing Session; Seminar of Advanced Built Environment Technology; CIB Sebestyén Future Leaders Award entry; and RPG Graduates Experience Sharing Forum.

**Western Sydney University**
Launched in 2019, events have included What After PhD?; the Built Environment Colloquium; Cadet Preparation Workshops for Construction Management undergraduates; two live-streamed webinars on Collective Sensemaking: The Great Reset – Resilience through Innovation and The Great Reset – Resilience through Thought Leadership; and a research competition for HDR students where participants submitted research lay summaries, which were evaluated by a blind expert committee, and winners were awarded prizes and certificates.

The highlight of the year was winning the WSU Vice Chancellor’s Excellence Award for 2020 under the category of Excellence in University Sustainability and Engagement.
Early Career Researchers Network

Our worldwide Early Career Researchers (ECR) network was announced in December 2020 to support the development of the next generation of researchers in our sector. CIB defines ECRs as those researchers with less than 5 years’ research experience or within 5 years of obtaining a PhD or other terminal degree – although it is not necessary for ECRs to hold any specific level of qualification, the network is fully inclusive no matter the level of formal educational qualification, and participants may work within a university, an industry research or technology organisation, or a construction or manufacturing firm for example.

ECRs are a population of researchers who are potentially engaged in research or innovation activities to impact the construction and built environment sectors. They are ambitious and looking to develop their career, so development of research skills, connections with researchers and stakeholder organisations around the world, and profile and recognition are some of the opportunities they are looking for.

To engage as widely as possible with this important community, CIB offers complimentary Individual Membership of CIB for up to two years to anyone who is eligible and wishes to join the network.

Network activities

As well as participation in Working Commissions of direct relevance to their research, the network provides a programme of online events to add value for early career researchers and for CIB members. Events held so far include Meet the Editor webinars with CIB’s Recognised Journals, and Introductory Networking events including with Commission Coordinators.

Plans to be developed include a CIB Mentoring scheme and a CIB ‘recognition scheme’ for ECRs.
Every third year, at the conclusion of the CIB Triennium, CIB organises its Triennial World Building Congress. The primary aim is to provide a platform for all building and construction experts in the world, both in and outside the CIB community, to come together and exchange their expertise. More information and links to specific conference content at cibworld.org/world-building-congress.

Hong Kong Polytechnic University’s Department of Building and Real Estate hosted WBC2019. Sub-themes were Smart Buildings & Infrastructure, Smart Transportation & Mobility, Smart Planning, Design & Construction, Smart Utilities & Facilities Management, Smart Environment, Smart Governance, Policy & Economy, Smart People & Living and Smart Service. There were over 450 participants from 30 countries, 400 Papers and 4,000 proceedings pages.

In 2022 RMIT University’s School of Property, Construction and Project Management in Melbourne will be our co-hosts for the 22nd World Building Congress #WBC2022 from 27th June 2022 to 30th June 2022, under the title Building our Future: Informing practice to enhance the lives of current and future generations. Further information including calls for papers, conference programme and delegate registration is available from www.cibwbc2022.org. Sponsorship packages are available.
CIB is an Association under the jurisdiction of Netherlands law. Since 2019 the CIB secretariat is provided by an operating company AIBC (the Association for Innovation in Building and Construction) which is registered as a Not-for-Profit company in Ottawa, Canada, and controlled through a majority of Members and Directors from the CIB Board.

**Governance Structure**

CIB’s organisation chart shows the pre-eminence of the General Assembly of Members and the important role of the standing committees.
Officers and Board

The Board is appointed by the General Assembly every third year at the World Building Congress, and for the period 2019-2022 it consists of the individuals shown in the table.

President

Keith Hampson, Australia
SBEnrc, Curtin University

Vice Presidents

Mark Hastak, USA
Purdue University
(Chair of the Third-Party Funding task group)

Chelydra Percy, New Zealand
BRANZ – Building Research Association of New Zealand

Hon. Treasurer and Chair of the Administration Committee

Peter Paul van’t Veen, Netherlands
TNO

Chair of the Programme Committee

Kalle Kähkönen, Finland
Tampere University of Technology

Chair of the Marketing & Communications Committee

Ron Wakefield, Australia
RMIT University

Chair of the Student Chapters Committee

Albert Chan,
Hong Kong, China PR
Hong Kong Polytechnic University
# Board Members

**Thorkild Ærø, Denmark**  
SBi – Danish Building Research Institute

**Miimu Airaksinen, Finland**  
RIL – Finnish Association of Civil Engineers

**Hisham Elkadi, UK**  
University of Salford

**Göran Lindahl, Sweden**  
Chalmers University of Technology

**Theo Haupt, South Africa**  
Mangosuthu University of Technology

**Lúcia Helena de Oliveira, Brazil**  
Gonçalves, University of São Paulo Escola Politécnica (USP)

**Bart Ingelaere, Belgium**  
BBRI – Belgian Building Research Institute

**Péter Tóth, Hungary**  
ÉMI

**Thomas Kirmayr, Germany**  
Fraunhofer Building Innovation Alliance, Fraunhofer Institute for Building Physics

**Patricia Tzortzopoulos Fazenda, UK**  
University of Huddersfield

**Brian Kleiner, USA**  
Virginia Tech

**Qiang Xu, China PR**  
Shanghai Research Institute of Building Sciences,
Guests of the Board

Alex Abiko, Brazil
University of São Paulo – Escola Politécnica

Ammar Peter Kaka, UAE
Heriot Watt University Dubai

Sayeed Bakhtiyari, Iran
Building and Housing Research Center

Kathy Michell, South Africa
University of Cape Town (UCT)

Srinath Perera, Australia
Western Sydney University
(Chair of the Early Career Researchers sub-committee)

Elections for the next triennium will be held at the General Assembly in June 2022, for which the process of nomination will kick off in late 2021.

Secretariat

Don Ward was appointed Chief Executive in March 2020 after a career in building research, industry change programmes and best practice initiatives.

Michael Behm
Michael is CIB’s Programme Director, he was appointed in January 2020 and also holds an academic position at East Carolina University.

Debbie Gray
Debbie is the Membership and Marketing Manager, she joined CIB in October 2019 and also keeps an overview of our finances and manages our contract book-keeper and other service providers.

Third Party Funding Task Group

CIB Vice President Mark Hastak of Purdue University USA chairs a task group to identify and secure opportunities for diversifying and growing CIB’s revenue through non-membership sources. Targets include charitable Foundations, other research funders, industry organisations in the built environment with an interest in the innovation space, eg digital construction, or with exposure to the risks of eg climate change. We welcome dialogue with any such stakeholders.
Financial Summary

For the year ending 2020 the summary accounts as audited were as follows:

Profit and Loss (figures in €000s)

<table>
<thead>
<tr>
<th></th>
<th>Balance 2020</th>
<th>Budget 2020</th>
<th>Balance 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Membership fees</td>
<td>347</td>
<td>370</td>
<td>380</td>
</tr>
<tr>
<td>Donations and gifts</td>
<td>-2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other operating income</td>
<td>16</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>362</td>
<td>385</td>
<td>398</td>
</tr>
<tr>
<td><strong>Expenditure</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personnel</td>
<td>87</td>
<td>63</td>
<td>195</td>
</tr>
<tr>
<td>Accommodation</td>
<td>15</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>Office expenses</td>
<td>146</td>
<td>175</td>
<td>26</td>
</tr>
<tr>
<td>Travel and representation</td>
<td>6</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>General expenses</td>
<td>49</td>
<td>44</td>
<td>166</td>
</tr>
<tr>
<td>Special Activities</td>
<td>11</td>
<td>13</td>
<td>-7</td>
</tr>
<tr>
<td>Doubtful debts</td>
<td>49</td>
<td>55</td>
<td>30</td>
</tr>
<tr>
<td>Other costs</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Result</strong></td>
<td>365</td>
<td>378</td>
<td>430</td>
</tr>
<tr>
<td><strong>Financial income and expenses</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest and similar</td>
<td>-4</td>
<td>-13</td>
<td>-1</td>
</tr>
<tr>
<td><strong>BALANCE</strong></td>
<td>-7</td>
<td>-7</td>
<td>-33</td>
</tr>
</tbody>
</table>

Balance Sheet (figures in €000s)

<table>
<thead>
<tr>
<th></th>
<th>End 2020</th>
<th>End 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Long term funds:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corporate capital</td>
<td>162</td>
<td>169</td>
</tr>
<tr>
<td><strong>Long term investments:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangible fixed assets</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Financial fixed assets</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td><strong>Working capital</strong></td>
<td>111</td>
<td>118</td>
</tr>
</tbody>
</table>

This amount is applied as follows:

<table>
<thead>
<tr>
<th></th>
<th>End 2020</th>
<th>End 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receivables, prepayments and accrued</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>149</td>
<td>202</td>
</tr>
<tr>
<td><strong>Debit: Short-term debt</strong></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td><strong>Working capital</strong></td>
<td>111</td>
<td>118</td>
</tr>
</tbody>
</table>
Organisations can join as Full, Associate or Individual members, our Full members as of June 2021 are as follows:

CIB is the global network for research and innovation in construction and the built environment

Published June 2021

www.cibworld.org
Email us at secretariat@cibworld.org for more details