Some past CIB
Working Commissions (WC) and Task Groups (TG)

In addition to currently active CIB Working Commissions and Task Groups presented elsewhere in this publication, the WCIs and TGs listed below have existed at different periods since 1950. Most were terminated after delivering their planned output. Others had their Scope & Objectives revised or were merged with another Commission and are still active, sometimes under the same number but with a different title.

**Working Commissions**

W001 - International Building Classification Committee
W002 - Restricted Commission working for the High Authority of the European Coal and Steel Community
W003 - Mortar and Renderings
W004 - Climatology and Building
W005 - Statistical Control
W006 - Climatological Data for the Building Industry
W007 - Measurement of the Influence of Green Areas on the Local Climate and Air Pollution
W008 - Assessment of Modifications of the Local Climate by Buildings
W009 - Structural Safety
W111 - Rain Penetration
W112 - Building Documentation Problems
W113 - Flat Roofs
W115 - Schedules of Units of Construction BRE
W116 - Wear Testing of Floors
W117 - Hearing and Climatisation
W119 - Large Concrete Elements
W200 - Curtain Walls
W201 - Influence of Height Width and Shape of Dwellings on Building Costs
W202 - Human Requirements and Building Design
W203 - Structural Requirements
W203A - Load Bearing Walls
W203B - Load and Actions on Structures
W204 - Modular Coordination IMC
W205 - Rational Execution of Work on Site (later: Dimensioning of Windows in the Tropics)
W206 - Improved Traditional Construction
W207 - Terminology
W208 - International Documentation Centre
W209 - Concrete Surface Finishes

**Task Groups**

TG01 - Contaminated Construction Land
TG03 - Measurement and Evaluation of Construction Research
TG04 - Non-Asbestos Fibre Cement Products
TG05 - Building under Arctic Conditions
TG06 - Assessment of Punched Metal Plate Fasteners
TG07 - Urban Land Information Systems
TG08 - Environmental Assessment of Buildings
TG09 - Structural Design of Plastics
TG10 - Computer Representation of Design Standards and Building Codes
TG11 - Performance-Based Building Codes
TG12 - Clean Air in Certain Premises
TG13 - Consequences for Buildings of Climatic Variability and Climate Change
TG14 - Modelling of Soil Gas Movement
TG15 - Construction: Conflict Management & Dispute Resolution
TG16 - Sustainable Construction
TG17 - Protection Against Electromagnetic Radiation
TG18 - Technology Watch
TG19 - Designing for the Ageing Society
TG20 - Geographical Information Systems
TG21 - Climatic Data for Building Services
TG22 - Environmental Design Methods in Materials and Structural Engineering
TG24 - Virtual Reality in Construction
TG25 - Facade Systems and Technologies
TG26 - Open Building Implementation
TG27 - Human-Machine Technologies for Construction Sites
TG28 - Construction in Developing Countries
TG30 - Computer-Assisted Learning in Construction and Property
TG32 - Public Perception of Safety and Risks in Civil Engineering (joint CIB-TABSE Group)
Foreword

I am very honoured to be CIB president during this Jubilee Year that celebrates our 50th anniversary. On behalf of the Board and myself, I warmly welcome you to this commemorative brochure.

Inside you will find a stimulating and thought provoking series of articles and interviews exploring different aspects of CIB and its impact on the Built Environment over the years. The first article traces the history of CIB from the early vision of international cooperation in European post war development through to today’s worldwide international network of leading edge players in the Built Environment.

Looking back, it is clear CIB has overcome many challenges, both external and internal, as it evolved into today’s truly global networking organisation. It is time to thank all members and their elected Boards who, through their collective vision and contributions, have made CIB the organisation it is today.

However, time does not stand still and other contributions in this brochure offer an insight into some of the factors, both internal and external, which may lie in wait to challenge us further in the future. Notwithstanding these issues, I must say that together with the rest of the Board, I feel very confident that by encouraging broader membership, continuing to combine our members’ strengths, working collaboratively ever more effectively and evolving our vision appropriately, CIB will continue to make major contributions to both today’s and tomorrow’s Built Environment for many more years to come.

Sherif Barakat
CIB President 2001-2004
The History of CIB

CIB has been celebrating its 50th Anniversary through a Jubilee Year that started with a Board Meeting in June 2003 in Paris. Since, the Anniversary year has also been commemorated at various CIB related events in different parts of the world. The celebration will be rounded off during the CIB 2004 Triennial Congress on May 1-7 2004 in Toronto, Canada. Since CIB was formally established in 1953 as “Conseil International du Bâtiment”, the organisation has seen many changes both within its own activities and the construction industry as a whole. During this time, five broad periods can be identified:

- **The Fifties**: 36 institutes come together to establish CIB which then embarks on the post-war road of development.

- **The Sixties**: CIB activities progress; a first peak in the number of Members (215); CIB is ambitious to assist the building industry to satisfy the high demand.

- **The Seventies**: The oil crisis exerts a downward pressure on the demand for new houses and buildings; this and internal problems result in a temporary slump; the number of Members falls back to 179.

- **The Eighties**: Building research gradually adjusts to the changing conditions; staff numbers in large research institutes are reduced but CIB develops in a singular way; the number of Members exceeds 450.

- **The Nineties**: CIB carries out internal reforms in order to respond effectively to new requirements: increasing concern for contacts with industry; for problems of management, maintenance, quality, environmental and sustainable development.
1. The Beginnings of CIB

International scientific and technical contacts had been severely disrupted by the war; in any case they had never been as close in the building field as in most other sectors of the economy. In pre-war days there was very little international trade in building materials and components. Yet governments, municipalities, private corporations, and individuals were spending vast sums of money on all kinds of buildings in the reconstruction period.

Officials in the United Nations and specifically in the UN ECE as well as leading experts in some countries set up the ECE Housing Committee (which later became the Committee on Housing, Building and Planning and is currently the Committee on Housing Settlements).

Attention soon turned to the wider field of the building and building materials industries and support was forthcoming from among the representatives and experts of these industries and member governments in the ECE for promoting international cooperation, first in the field of building documentation and later extending to building studies and research. Two years of preparatory work culminated in the setting up in 1950 of a new international non-governmental organisation, the International Council for Building Documentation (CIB).

The purpose of which was to provide a link between national centres or committees for building documentation and to promote the establishment of common principles with regard to terminology, classification, and methods of arranging and presenting building documentation. It was appreciated from the outset that similar arrangements ought to be made for collaboration on building research and the close connection between documentation and research had always been emphasised.

“attention soon turned to the wider field of the building and building materials”

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1 This is adapted from the Opening Address by Professor Gunnar Myrdal, Executive Secretary of the United Nations Economic Commission for Europe (ECE) in the fifties, at the 3rd CIB Congress in 1965.
In November 1950 the Housing Sub-Committee of the Economic Commission for Europe called a Conference of Building Research, which met in Geneva. There was clear evidence of the need for new arrangements to stimulate international collaboration in research and a small ad hoc group of experts, known as the Building Research Organising Committee (BROC) was given the task of making detailed recommendations.

The Committee worked for over a year and presented its final report to the ECE Housing Sub-Committee in September 1952. It realised that the creation of an entirely new organisation should be avoided if possible and recommended that the International Council for Building Documentation should be transformed into a body capable of dealing with both documentation and research. It embraced three main fields of activity: experimental research; studies and the application of the results of research; and documentation.

The new body, the International Council for Building Research, Studies and Documentation (CIB) held its first General Assembly in June 1953 in Geneva with the main purpose of adopting statutes. Eleven founding members were present; seventeen countries were represented. During the meeting numerous institutes came forward to register themselves as members and so the global evolution of CIB started. As CIB was then constituted, it had three sections identical to the three recommended by the Building Research Organising Committee. The role that the Founding Fathers clearly envisaged for CIB, was as the vehicle for channelling the contributions of its national members into an effective system of international collaboration in its three fields of activities.

CIB was conceived as a decentralised organisation, with the burden of the work resting primarily on the constituent national member institutes.

This arrangement has characterised CIB to date and even now it is only subject to marginal change.

The above description emanates from a former highly placed UN Official and does emphasise the role of the UN in setting up CIB. It also demonstrates why the UN has always pinned high hopes on the functioning of CIB, an aspiration to which CIB has attempted to respond adequately. The beginnings of CIB could also be described from the point of view of the research institutes themselves which felt the need for an organisation of the type of CIB. This, then, would emphasise the devotion of CIB’s Founding Members to the Organisation.

2. The Nature, Objectives and Function of CIB

When CIB was established, concrete expectations lay behind its perceived role. These were grounded in the confident belief that research had the capability to come up with solutions to many of the problems which beset war-ravaged Europe at that time. International cooperation in building research, studies and documentation was seen as an instrument for promoting a more rapid and cheaper rate of construction. With the passing of time, a less all embracing confidence in research’s ability to be the universal panacea for ills came to prevail. An example of this mode of thought is the following passage taken from the Proceedings of the 1965 Congress, It is by a distinguished deceased Past President of CIB, Mr. Ph. Arctander:

"A building research institute is to-day believed by many to be the place that should be able to supply all the right answers. This is both over-optimistic and un-productive. In many cases the institute will serve progress better by acting as the place that formulates the right questions … Nor is the research institute always solving the problems. At least it is frequently uncovering more new ones in the process."
The caution which Mr. Arctander voiced may be seen as the consequence of certain high expectations which had been no more than partially fulfilled. Simply to state what CIB could not deliver, however, was not enough. A more positive statement was required.

The 1986 CIB Publication on the future of CIB judged it necessary to stress the essential basic difference between the nature of CIB members and the nature of CIB itself. While most of the members of CIB are operational entities or agencies, CIB is a voluntary, co-operational entity. It has no effective or operational research resources of its own.

By the time of the examinations in the 80s it had become evident that: "The main activities of CIB are carried out within the Working Commissions. The role of the Working Commissions and their Coordinators is fundamental to the existence and welfare of CIB." 3


The next major reassessment of CIB by itself was conducted in the years 1989-1993 and its basic findings were set out in the Document "The CIB Strategic Plan: A Discussion Paper" which was written by Professor P. Lansley on the basis of work carried out by an ad hoc Group. The paper was submitted to and approved by the CIB General Assembly in 1992. In summary it stated:

"The environment of CIB is changing quickly as a result of the new expectations and pressures on research organisations, universities and companies and changes in their relative size, CIB will respond to these changes by offering more clearly defined benefits. These will take the form of better quality fora, higher quality reports and documentation which is more readily accessible and usable by the research community, its clients and industry.

The pre-eminence of CIB as the major building research and documentation network is threatened by the proliferation of stand alone networks focussed on particular issues. In order to be attractive to those endeavouring to establish networks focussed on particular themes CIB will be more proactive in securing those networks and more attractive to those who will run them.

'CIB will refocus its activities to ensure that it provides services appropriate to its members' needs and in particular that these are of a very high quality. This will require an assessment of all of its existing operations, including an overhaul of its committee structure, an assessment of the value of existing Working Commissions, re-appraisal of the role of the Secretariat, and a review of membership and fee structures.

'A major concern will be developing better links between the Board and the Working Commissions. This will be achieved by the development of better guidelines concerning the outputs expected of the Working Commissions and a more thorough review process. This will be matched by the provision of more support from the Board for new activities and new Working Commissions and consideration of monetary support to Coordinators.
‘CIB will implement a system of Quality Assurance as a means of attaining better outputs. The membership categories, benefits derived from each of these and the associated fee structure will be reviewed so that the fees are geared to the benefits received rather than the ability to pay. The Programme Committee will play a major role in monitoring performance of the Working Commissions and sanctioning initiatives.’

CIB maintains an active interest in the development of systems for storing and disseminating the results of research. Prominent amongst its initiatives is the creation and support of the ICONDA database. More generally, the development of information handling systems for the whole construction process constitutes an important field of research which falls within CIB’s scope.

The CIB Programme Committee reports to the Board of CIB and works within a framework of strategies and policies approved by the CIB General Assembly and Board. The key policies endorsed by the General Assembly in 1992 are:

Firstly, CIB must consciously serve the interests of its members, who provide its income. The Board and the Committees, therefore, need to constantly examine the way in which their activities serve the interests of the many and diverse individuals and organisations who pay membership subscriptions to CIB.

Secondly, CIB needs to stand for high quality in all its operations. Any activity taking place under CIB’s auspices should be held internationally in high regard and

CIB’s members should have no doubts about the benefit obtained from the time that they as individuals or their staff put into such activities.

Thirdly, CIB needs to deliberately identify the growth areas of interest in building research, and seek to establish new activities in these areas. There will otherwise be a continued trend towards fragmentation of research groupings, and the key benefit of the interlinking that is facilitated by one network will be lost.
The Committee has established a new policy on membership of Working Commissions. In principle, all members of Commissions should be in one of CIB’s categories of membership. This has not been the case until now, with the result that it has been difficult to argue that an individual or organisation should come into membership of CIB when they may participate in its activities without joining.

Since Working Commissions and Task Groups are fundamental to the quality of CIB’s operations, the first task of the Committee will be to assure the Board that these are all operating successfully. The Committee will undertake a formal review of all current activities with a view to establishing the ‘mandate’ for each Commission for a finite (probably three years) period. Further, as part of the Programme Committee’s oversight arrangements, a reporting system will be established, with Coordinators sending a brief report each year on their Commission’s work.

What has been described before within the context of history constitutes a clear remit for the future. Implementation of these policies is a task on which CIB is concentrating its attention.

3. Fields of Activities, Commissions and Groups

Since its establishment CIB has regularly defined topics for work. In the first period selected topics were dealt with by a designated expert or by groups of experts. At a later stage, the system of Working Commissions was introduced and this has remained the basic working formula up to the present.

In the late eighties a new form: Task Groups were introduced. Whereas the scope of a WC generally extends over a larger area (e.g. acoustics) thereby implying a long life span for the Commission concerned, Task Groups were set up to tackle narrower topics and for a more limited lifetime.

4. Events and Publications

CIB events can be categorised as: CIB events, Congresses, Symposia (Seminars, Conferences, Workshops), Meetings and Publications and either products of work in Commissions or proceedings of important CIB events.

Publications are the most important results of CIB work and of CIB events, not least due to their permanency. They can be classified as: Journals and similar periodic information bulletins and services; Reports, Proceedings, Recommendations; Individual products and others.

4.1 CIB Reports and CIB Publications

Throughout its forty years existence CIB has always attached great importance to publications. These take different forms:

- Numbered Publications: in total until the end of 1993 158 titles. Although the majority of these have been published at CIB Headquarters several were published by Members. Some of these publications feature the outputs of Commission work; others are compilations of Working Papers of Commissions and some are Symposium publications.

- Un-numbered Publications by Members or by other Organisations in the case of jointly sponsored events.*

Several of CIB’s publications have become important tools in advancing knowledge, standardisation and coding.

The continuation of CIB publishing activities will seek to achieve further improvements mainly in maintaining high standards in the contents, adopting a more user-friendly form of editing and increasing circulation.

* A list of titles in the first category is attached; no complete list exists for titles in the second category but a selection is also attached.

4.2 CIB Congresses

CIB held its first Congress in Rotterdam in 1959 and since that time twelve Congresses have taken place at regular intervals of three years. The themes chosen reflected the main preoccupation of building research within each period and also characterised the overall directions which CIB’s activities were taking.
4.3 Symposia, Seminars, Workshops

For a long time Congresses embraced virtually the whole spectrum of CIB activities. Despite this, already at relatively early dates it was felt that specific topics would require special meetings: Symposia. The first Symposia were individually planned and realised Meetings e.g. on information/documentation matters or on the performance concept and its applications. If the interest in the topics remained alive for a longer time, Symposia were repeated or later even planned at regular intervals, in the same way as Congresses.

Some Commissions preferred to use the name 'Seminar' to describe such events (W62) or even 'Workshop' (W72). Each of these have certain individual features but also much in common. They usually also published the papers submitted as Proceedings.

4.4 Journals, Newsletters, Information Bulletin

In 1954, in the introduction to the first issue of a CIB Bulletin Mr. J. van Ettinger stated: "You now have before you the first number of the CIB Bulletin ..."

This publication of CIB came out between 1954 and 1966 nominally four times a year although in fact there were some years when double issues or a lesser number of issues were published. It was a printed bilingual (English and French) publication and featured reports on CIB activities, on progress in CIB Commissions, on work of CIB Members as well as mentioning matters of interest about what was going on in other international organisations.

In 1968 it was decided to publish a typed photocopied monthly CIB Newsletter and to commence the publication of a printed Journal with two versions in the two official languages. This became Build International/Bâtiment International. To oversee the editorial and financial affairs the CIB Board established Build Foundation and the first issue (Volume 1, No. 1) was published for October/November 1968. This Journal was published in the years which followed.

A dispute with the Publisher (and the Editor) compelled CIB in 1975 to change the English title to Building Research & Practice; the French title Bâtiment International was retained. The format was altered: instead of two separate versions (English and French) texts in the two languages were incorporated in each issue. The Journal itself was printed and distributed by a professional publisher. In parallel with the Journal a typed and photocopied internal Bulletin was published.

It has to be said that expectations as regards the Journal were fulfilled to a partial extent only. The Journal's broad scope (building R&D) meant that specialists (e.g. those engaged in acoustics or other fields) did not feel that the Journal responded adequately to their particular needs.
The Journal did not apply the system of refereeing, which tended to preclude the attainment of a high scientific standard. While aspired to bring CIB’s results to the practitioners it failed in this aim also because articles were still written by researchers but not really orientated towards applications. The Journal had a low circulation and despite extensive efforts neither CIB nor the publisher succeeded in changing this. Inevitably the Journal caused financial loss to CIB for which there was no justification in the long term considering the limited number of readers it reached. The CIB Board therefore decided at its Meeting in Tokyo in 1990 to terminate the Journal and instead to concentrate resources on a marked upgrading of CIB’s Information Bulletin.

The early issues of a typed and photocopied internal Information Bulletin produced at periodic intervals were rather brief; usually running to between two and four pages. They were prepared in the two official languages. Then in the early eighties the Bulletin underwent substantial change. The increase in the number of Meetings, Members, Publications etc. Necessitated the expansion of each issue to 18 to 24 pages and measures were taken to ensure that its production became regular and on time (six issues per year).

For some years the French version was produced with the help of CSTB and there were even years when an issue in Spanish appeared thanks to the aid of the Torroja Institute. As the decade of the eighties went on, however, English became more and more dominant in CIB work, with the result that finally the Bulletin was published in English only.

Following the Tokyo Board Meeting in 1990 the Bulletin was transformed into a printed newsletter. The first issue in the new and enhanced format was circulated early in 1991 and since that time its editing has become consolidated. It seems that the Bulletin in its present form would serve the needs of CIB Members and the objectives of CIB in the coming years well.
4.5 "Directory"

Under this name a CIB Publication became recognised whose full title is International Directory of Building Research, Information and Development Organisations. It was first published in 1969 with the second edition in 1963, the third edition in 1971, the fourth edition in 1979 and the fifth edition in 1986. The Directory became a well-known and much used publication. The first four editions were published by CIB; the fifth by the UK Publisher E & FN Spon Ltd. The fifth edition gives concise information on the programmes and resources of 640 (of which 61 are international) building research organisations in 54 countries. The continuing demand is certainly such as to justify a sixth edition being produced shortly.


4.6 Internal Publications and Documents

The effective functioning of CIB always required the preparation of internal documents. Some of these (List of Members, Compendium of Working Commissions etc.) found their way into the series of numbered CIB Publications, others remained unnumbered or formed part of the on-going G.A., Board, P.C., A.C. documentation with appropriate code-numbers being assigned for reference purposes. In recent times the List of Members was published annually and the Compendium biennially. Latterly an Annual Report also was published; in the coming years consideration will be given to be combining one or more of these into a Yearbook. 4

4 See CIB Publications 100, 101, 122, 135, 144 and 146.

5. Relations with Other International Organisations

United Nations and UN Organisations

As has been mentioned earlier, CIB was established on the initiative of UN (ECOSOC and ECE). This explains the special relationship with the United Nations and specifically to UN ECOSOC, UN Regional Economic Commissions (ECA, ECE, ECLA, ESCWA, ESCAP) and UNCHS. Even the Constitution of CIB refers to this special relationship. CIB Board Meetings have been held twice in Nairobi at the Headquarters of UNCHS; CIB Congresses frequently had the honour of Welcome Addresses by high-ranking UN Officials and several Meetings were held with the participation of UN and CIB Officers.

While there is no change in the respect and attention which CIB gives to UN Organisations these contacts have changed with time. Declarations and documents on cooperation became substituted with planning and executing joint actions. This has also been a consequence of the growing number of UN Organisations with which CIB established contacts.

European Community

Whilst CIB is global, its relations with EC have developed in recent years. CIB Commissions had a prominent role in the preparations of some of the Eurocodes. CIB co-sponsored an EC Symposium on the performance concept in Luxembourg and was invited to Conferences of ENBR and EOTA in Luxembourg and in Brussels.

ISO and CEN

CIB has formal cooperation agreements with ISO and CEN and is a Member of the sectoral committees ISO/TC8 and CEN/BTS1.

Liaison Committee (L.C.) and Civil Engineering Organisations

The major international civil engineering organisations established a Liaison Committee 30 years ago of which CIB is a Member. For two two-year periods CIB provided the Presidency (Messrs. Sebestyén and Wright) and for several years the CIB Secretary General was the Secretary of the L.C. Membership in the L.C. ensured amicable cooperation and joint actions with Member Associations (CEB, CIB, ECCS, FIP, IABSE, IASS, RILEM) which established the Joint Committee for Structural Safety (JCSS).

In this also CIB was an active participant: the late Prof. J. Ferry Borges, Chairman of the CIB Programme Committee was for a long time President of the JCSS.

Other Organisations

The number of international Organisations has increased during the last forty years. CIB has in many cases cooperated with other Organisations and in other cases has simply held activities adequately covered by other specialised Organisations. Some of the Organisations with which CIB has cooperated are: RILEM, IEA, IFHP, EuroFM, ENHR, ISAO, IAARC. Such cooperation has always been an integral part of CIB's evolution and will remain so.
6. Internal Structure

6.1 The Membership of CIB

CIB was established by a small number of building research institutes and documentation centres. As time went on, its Membership took in Universities, professional Associations and various types of (design, consulting, contracting etc.) companies. Internal conflicts caused a temporary slump around 1979 but since then an uninterrupted upwards trend has been experienced.

Throughout more of the course of CIB’s history, three categories of Members have existed: Full, Associate and Individual. The first two are for organisations, the third for individuals. Some other categories (e.g. Support Organisations, Industrial Members) either ceased to exist or have been introduced only recently (for example, three sub-categories of Full and two for Associate Members).

The sixty or so Full Members (12% of the total number of Members) shoulder about two thirds of CIB’s operating costs and the 17 largest Full Members (3% of the total Membership) contribute around one third of the total costs of CIB. Equally important is to bear in mind the consistently high level of their professional input.

In the early fifties some large manufacturing multinationals were so-called Supporting Organisations (DuPont; Péchiney; Saint Gobain; Ciments Lafarge; Pilkington). However, CIB could not retain these affiliations over the longer term.

In recent years CIB has attempted various actions to recruit more Members from the world of practice and some initial successes can be reported in this direction. Design and consulting practices and contractors are among such Members, and examples that may be cited from the contracting world are: Obayashi, Kurogai Gumi, Shimizu (Japan); Costain, Laing (UK); etc.

CIB is spread over the world but its European post-war reconstruction genesis remains clearly perceptible e.g. in the membership, where European representation makes up 50% of full membership, 67% of associate membership and 47% of unattached membership. 7

In recent years the presence of South-East Asia (or: of the Pacific Rim) has become stronger. On the other hand, since 1989 the participation of researchers from countries of the former USSR weakened; hopefully this will turn out to be a temporary phenomenon only.

7 CIB Publication 100, page 5/36
6.2 CIB Reports and CIB Publications

After the early years of CIB, General Assemblies were held in conjunction with the Congresses on a triennial basis starting with 1959.

The operational direction of CIB life was in the hands of an Executive Committee (1951-1975), the first Meeting of which was held in Geneva in 1951. From 1976, a Board took over the responsibilities of the Executive Committee.

As the scale and complexity of CIB's internal affairs grew the Board judged it necessary to delegate some of its tasks to two permanent subsidiary Committees. These are the Programme Committee (PC) and the Administrative Committee (AC).

Since its founding in Paris in 1950 CIB has benefited from a sequence of Officers who have contributed greatly to its development. The names of Presidents and of Secretaries General are listed in the appendix though others (Vice Presidents, Treasurers, Board Members etc.) equally deserve recognition for the outstanding way in which they discharged their functions.

The staff of the General Secretariat has numbered five persons (not all of whom are full-time). Restricted only by its small size, the General Secretariat has served as a motor servicing and promoting the activities of the CIB General Assembly, Board, Programme Committee, Administrative Committee and Commissions.

The large Full Member Institutes contribute most to CIB's financial needs. Out of the total CIB income the fees paid by Full Members amounted in the first period of these forty years to between 70 and 80%; gradually this has diminished but it still amounts to 60 to 70%.

The fee system earlier was based (for Full Members) on objectively controllable factors such as population, size, gross domestic product or national product per capita and distance from Europe. In recent times, this has undergone a radical change so that there are now six Membership categories (3 Full, 2 Associate and 1 Individual) with fixed fees for each category.

CIB is a non-profit organisation but in line with accepted commercial prudence it does maintain a reserve fund to smooth over eventual bad periods. Thanks to the willingness of CIB Members to contribute to CIB expenditures, serious financial obstacles have never stood in the way of normal functioning. This certainly does not mean that CIB is awash with money: a tight ship is run and there are no substantial funds to finance additional activities of CIB or of Members.

The changing environment for national building research organisations inevitably had repercussions on CIB also which has opened itself up to industry.

The implications of these changes for CIB and its financial affairs will become more evident over the coming years.

A Concluding Comment

At the end of this historical overview, what are the real lessons to be learned? Are we better or worse off after these forty years? Has building research or CIB or the construction industry itself been instrumental in shaping the life of mankind?

One can claim with certainty that once given the opportunity to build, the construction industry has the capability to affect our world in a positive way. The problem has been that frequently construction work was interrupted by political or economic turmoil and against these the industry is powerless. It would make no sense to anticipate future calamities also and to call a halt to work on development of building technologies. Building research and CIB will have to face these if and when they appear.

The construction industry and its research organisations will always be prepared to give their maximum endeavours for the betterment of the built environment.

"Are we better or worse off after these forty years?"

"The history of CIB is adapted from a document by Prof. Guyla Sebestyén and Chris Pollington"
Some past CIB Presidents

Prof. Christer Sjöström  
CIB President  
1995-1998

George Seaden  
CIB President  
1989-1992

Jelle Witteveen  
CIB President  
1992-1995

M. A. Marini  
CIB President  
1950-1953

CIB General Secretariat - Then & Now

Prof. Gyula Sebestyén  
CIB Secretary General  
1979-1993

Dr. Wim Bakens  
CIB Secretary General  
1994 - present

Chris Pollington  
CIB Deputy Secretary General  
1977-2000

Patrice Godonou  
CIB Assistant Secretary General  
2002 - present

Although CIB officially started in 1953, the first General Assembly, that ultimately originated into the present organisation, took place on October 23-28 1950 in Paris.
As CIB celebrates its 50th anniversary, President Sherif Barakat reflects on the benefits of his involvement with the organisation over the past nine years and considers how CIB will develop in the future.

Dr Barakat first became involved with CIB in 1995 when he joined the Programme Committee. He then joined the Board in 1997 before becoming president in 2001. He is very clear on the benefits of his participation, in terms of both his own personal development and that of his organisation.

“When I joined the Programme Committee I was a manager of a research programme, and it was very informative to see what was going on elsewhere. First of all, I was exposed to new ideas proposed for the various working commissions or task groups. I learned a great deal about activities and interests, and about industry structure and trends in other parts of the world. This prompted many questions and ideas about my own programme and organisation.

“A second benefit of membership has to do with the relationships you develop with other research organisations around the world. This kind of connection is very valuable because it allows you to benchmark your own organisation and its activities, and to learn from the experiences of other similar organisations.”

Dr Barakat has found being part of the CIB network so valuable that he feels that this alone is enough to make membership worthwhile. He regards his CIB membership as an essential tool in planning and optimising research capability within his own organisation. But even more than the increased productivity it has brought, Dr. Barakat values the managerial, communication and cultural development gained from his involvement with CIB.

“CIB membership is about transferring knowledge globally and gaining the necessary insight to predict future trends and find ways of operating—as an industry or an institute—within this changed environment.

“This breadth of vision feeds back into the planning of the organisation, at both management and research levels. If you are doing work in an area being covered by a commission, joining the commission presents a great opportunity to lever your effort up to ten-fold, and it also provides unique professional development possibilities for young researchers.”

Since CIB was established 50 years ago, mainly to provide research and technology expertise for the re-building of western Europe, it has evolved into a much broader membership of universities, consultancies and construction companies around the world. Dr Barakat feels that this expansion has been necessary because of the breadth of work to be done in the domain of construction research.

“The research agenda for construction is very broad, from basic building physics all the way to innovation within the construction sector, or firm. But, as a researcher, you don’t have to be involved in every aspect, and each country or region may have very different issues and challenges.

“There has been major change in CIB’s role in the recent past,” Dr Barakat went on to say. “Historically, and for the most part today, researchers have proposed ideas that they believe would benefit from international collaboration. Recently, however, CIB’s role has changed from just facilitating this collaboration to championing certain areas that it considers to be of global interest and priority. Of course, this has placed greater strain on CIB’s resources, but we believe that this approach is essential and a mark of CIB leadership.”

Looking to the future, Dr Barakat sees that there is still a lot of work to be done on the current themes—performance-based buildings, sustainable construction and revaluing construction—but that there will be a gradual shift as new priorities develop.

“We have to look at what the issues and drivers are for the building and construction sectors. CIB is now working on “big themes,” with its two main challenges being sustainable development and industry productivity, which influence everything from the environment itself to the health of people, the quality of our built environment, and the viability of the industry itself.
"It is important that the construction industry responds to these and other future challenges, which raises the question: Is the industry structured to meet the demands of sustainability? The construction industry has been accused of lagging behind other industries—for example, it has been said that the industry hasn’t utilised the advances in information and telecommunication technologies as quickly as the manufacturing or aerospace industries. It will definitely be one of the elements to be addressed under the theme of revaluing construction.

"Health is also a very important issue, with indoor health emerging as a major issue, and of particular interest to CIB. The issue of security is another that poses challenges to our sector. CIB is addressing both issues through a number of activities, including new task groups, conferences and special projects. We may see an expansion of these activities as the demand increases."

Dr Barakat feels that CIB has a strategic role to play in all the above-mentioned areas and that it will have to strengthen its international profile and leadership if it is to successfully champion new priorities as they emerge.

"I think the greatest challenge we face is to make the CIB more prominent globally by addressing the challenges industry considers most important. If we do this, companies will come to CIB for information and collaboration because they see it as the premier global link to the construction sector. To meet these challenges, CIB must pick the right niche and then put its resources behind this niche in order to become the best."

Dr Barakat sees CIB repositioned in the future as a global network for the built environment. "In developed countries the built environment (and the construction industry) is taken for granted, with the result that research and innovation in construction never make it on to the agendas of many governments. At CIB we have a role to play in championing this cause, explaining the socio-economic importance of our industry and the benefit of helping it become more efficient and productive, in terms that politicians can understand. Any economic activity starts with the construction of something, and this construction in turn affects the outcome of that activity," concluded Dr Barakat.
Jacques Rilling first became involved with CIB in 1977 as part of a working group on fire safety. His involvement gradually increased and he became CIB Board member for the first time in the 90's.

"From my first contact with the organisation, I understood that CIB was the right place to find out about new research fields and to have a quick access to the network of people associated with those fields. I've always perceived CIB as an appropriate platform to share visions of the future and investigate main trends in the industry as well as problems that could arise in the future. Thanks to CIB I have often been able to identify these trends and problems, well before most colleagues in my country.

"Through CIB we are able to identify appropriate researchers abroad, and establish a network of contacts. The network truly facilitates sharing of information and cooperation".

However, due to recent research budget cuts within his organisation Dr Rilling has seen a non-explicit pressure on researchers to not spend too much time in non-commercial exchange with colleagues, as may be the case with most CIB activities.

"Despite this, I still encourage my staff's participation in CIB activities; but I must admit the impact of the new 'commercial orientation' on our contribution to the network. The situation is similar in most research institutes and from what our university colleagues are telling us, a similar situation is developing in the academic world as well. So we are facing changes that deeply affect the ways in which we used to work".

"CIB's research activities used to be much more member-driven until the mid 90's, when we launched the Pro-Active Approach (PAA), the idea being to develop activities 'top down', focussing on major themes of interest. I am sure that this approach is sound and it should be part of the future of our business to have a vision to highlight where there could be major problems in the future of our sector, all over the world".

"The built environment adds value to society. Well-being is important and is of course another important angle to consider, but I don't feel that this view comes naturally in all CIB's activities. Most researchers here seem to be driven by problem solving such us energy saving, noise-reduction, etc.... People don't think much about the overall philosophy on 'how to make the world a better place in the future'. We have a poor vocabulary for discussing the values of the built environment. We can only talk in money-terms, and technical issues. The problem is not only the physical but also how the environment is managed and it's not common to see people clearly addressing that".

Looking into the future, Dr Rilling sees CIB as having a role in construction innovation, while not being directly responsible for it. "Many members would say that CIB is more a facilitator of innovation than a producer of innovation. More often, innovation comes from contractors or architects, and people like that. CIB tries to assist and initiate, but it does not create innovation; it creates the knowledge and the analysis forum for dealing with the questions that can help people develop innovative ideas."
Professor Frits Scheublin became involved with CIB for the first time seven years ago while attending a conference in Tokyo. Today, he is positive that his involvement in CIB has helped to promote his company’s international status and has also provided other benefits of more practical nature.

“Our construction company is proud to be an international company and part of international networks such as CIB. Our membership confirms that position and shows our interest in being informed about what’s going on in the world around us.”

“Being involved with the CIB you find out that you face the same kind of problems as your colleagues in say, Japan or the USA. You realise that issues related to small margins and high risks, are experienced by construction companies all over the world. Thanks to the platform offered by CIB, you can discuss these problems with people from all over the world hence increasing your chances of finding alternative solutions.

“Now that CIB is initiating and developing international research agendas, we can put forward questions and work together towards adequate answers. Moreover, for us coming from the industry, it is important to offer our staff an international perspective, as it gives them a wider view of the world and provides increased professional satisfaction. Exposure to international networks is indeed an additional way of motivating staff. Nevertheless, I think CIB is equally important for the universities as a platform for exchanging ideas.”

Looking into the future, Professor Scheublin thinks that CIB could play a stronger role in promoting the understanding of the built environment by people outside the sector, and hopes that it can help focus research on the particular needs of industry.

“CIB has a role in the future in promoting a better understanding of the role of the built environment to society in general; and in helping to increase public awareness on the importance of our industry for the well-being of people. International organisations like CIB have a strong impact on international institutions such as the European Union and the UN. They can therefore provide platforms for debating issues related to Building and Construction that concerned national governmental bodies will certainly appreciate”.

“It would be a clear added value to the organisation if we had more contractors as members because CIB is today dominated by researchers and universities. Since the contractors are in principle considered as clients for the researchers, they should be better represented in CIB’s activities.”

“In my opinion, one of the future challenges of CIB, will be to widen its activities even more towards the needs of the industry. With the current pressures from reduced budgets faced by most organisations, such an approach will help justify the funds invested in CIB activities.”

“One of the most important questions today for the industry is - How could we improve our productivity? Looking at most of the labour intensive and manually performed work, we all feel that it is necessary to further industrialise the construction sector. We are probably one of the “last industries to industrialise”. Let CIB contribute to setting up a Forum to deal with that issue.”

“The problem is that the industry has a rather short horizon. We are often very much interested in research that can contribute to profitability now, and any research activity not within a time frame of three years is not interesting. While some researchers are working on issues that may lead to profitability only after five or even ten years, and that doesn’t motivate the industry.”

“Researchers are of course promoted through the work they publish in journals or other media. That work does not always address issues that may have direct impact on the industry. It would be much better for both the industry and the researchers if we could elaborate a system whereby work leading to improved productivity for the industry could also be a source for rewarding researchers. CIB could have a role in the future into turning the focus from simply producing papers to really producing added value to the industry.”
Valter Esposti
16/06/03

Dr Valter Esposti is Director of the Institute for Construction Technology, part of the Italian Institute of National Research Council. He has been involved with CIB for many years and joined the Board six years ago before becoming Treasurer and Chairman of the Administrative Committee in 2001.

“...My involvement with CIB has given me the opportunity to exchange information and opinions on a various research fields. It has been of great benefit to have an insight on how the global building sector is moving forward and to see what the state of this evolution is in different countries.”

His involvement within CIB has also helped Dr Esposti in shaping the research program at his institute.

“When a certain idea is given priority within CIB, it is very useful for the young people within my organisation to be aware of the actual framework. This often contributes to boosting their creativity so that they can go further and propose new research subjects and participate in this area of research.”

“CIB has stimulated new ideas and new research programs as well, especially in the global evaluation of the sustainability of building. There is today ongoing research that contributes to the debate on sustainable construction. That was first stimulated by CIB and then used as leverage to get funding and people involved worldwide.

Looking to the future, Dr Esposti believes that CIB will have a growing role in further encouraging international cooperation in building research.

“I think that compared to other sectors, the Building and Construction remains a sector where national traditions and national approaches remain important and sometimes the national community is too close, especially in terms of new regulations. By bringing in new members from countries that have not traditionally participated in our activities, CIB can have a positive effect in changing this situation.”

Dr Esposti has concerns about the relationship in the construction industry between developed and developing countries, and hopes that CIB can help those groups to come closer to each other.

“The image that the Western media projects toward developing countries on various topics, often has a very strong impact.

This image sometimes gives the impression to decision-makers from developing countries that technologies and solutions can simply be transferred. In relation to a construction project in Albania, we tried to explain that some solutions existing in Italy couldn’t be used in Albania because of their infrastructure. But as technical people, our words had less impact than images received from the television and were not well appreciated. The role of the CIB could be to facilitate the participation of developing countries in the Building and Construction sector at a technical level and thereby facilitate communication on technology transfer.”

“CIB has in the past had a very strong role in generating ideas and documents, which every country could then adapt and use in their national scheme and standards. I think that is still an important role that we should continue to play at an international level.”

Dr Esposti also recognises that CIB has a future role in promoting the importance of the built environment to society in general, and in encouraging innovation in construction.

“The built environment is our daily life environment and governments do not give it enough consideration. Interest for the built environment only arises when there are some problems, such as natural disasters, and people are not able any more to enjoy their normal quality of life.

When CIB was set up it benefited from the fact that there was need for reconstruction in Europe, and a lot of money available to spend. Today, we’re no longer in that situation in the West; rather, the problems we are to deal with concern an ageing built environment for an ageing population. I expect that within a few years this will become an even bigger problem. This will probably stimulate the market again but it will also push forward new ideas because it is quite clear that the natural environment is not adapted from a comfort, a safety or an energy point of view, to the existing building standards.”
Prof. Vahan Agopyan was first exposed to CIB during his doctoral degree studies in the early 80's in London, when a close friend of his suggested to him to submit a paper to a CIB Conference on “Rational Organisation of Building”. His paper was accepted and during the conference that took place in October 1981, he was very much impressed with the quality of the presented papers and moreover, by the distinction of the participants whom he previously knew of only through their papers.

That was a very remarkable introduction to CIB activities and since then I've always tried to be aware of the results from the Council's actions. I have to admit that my knowledge of CIB activities at that time was almost nought. Since, I have expended all my professional life at institutions closely linked with CIB. In the beginning at IPT - Instituto de Pesquisas Tecnológicas do Estado de S. Paulo (Technological Research Institute of the State of S. Paulo) - and now at the Escola Politécnica of the University of S. Paulo. Both institutions have gained great profits through CIB membership in various aspects. But I would like to point out two main ones that, in my opinion, are of utmost importance for an institution from a developing country.

In a country where information is scarce and the cost of obtaining it is relatively high, the information largely available through CIB has been of great value for member institutions. Another chief point to be presented is the opportunity that the membership has offered us, as institution but also as individual professionals, to participate in the development and improvement of the knowledge in building and construction.

Among the innumerable activities of CIB, there is one that I have done my best to always join, which is the Triennial World Building Congress at which occasion major themes are pointed out and deeply discussed. Usually, these congresses have been landmarks for the building and construction technology development. This is what happened during the 80's with the performance evaluation concept, quality control and quality evaluation. Nowadays, CIB is the champion institution for Sustainable Construction, Performance-Based Building and Re-valuing Construction subjects, which will be discussed during the 2004 Congress.

A major step for CIB's development was the decision taken during 80's to implement the Pro-Active Approach, resulting in projects through which the leading subjects are studied more deeply besides the work carried out in the Working Commissions and Task Groups. Thanks to this approach it has been possible to keep CIB in the state-of-the-art of building and construction technology. Moreover, in my opinion, this makes CIB more attractive not only to researchers but also to the Industry.

Finally, I must add something which is neither technical nor scientific but of personal nature. Thanks to CIB, and I am proud to say that, I have made good friends all over the world, since I first joined a CIB activity, in October 1981, with whom I can share not only my professional interests but also have friendly relationship.
Congratulations CIB

The Research Institute for the Built and Human Environment (BuHu) and the School of Construction and Property Management are proud to congratulate the CIB on reaching its 50th Anniversary. As the UK’s premier university for research in the Built Environment we are pleased to have benefited enormously from our close working relations and partnerships with CIB and we are confident of continuing, to work together in the future, to help advance the Built Environment.

Professor **Les Ruddock**
Director: BuHu

Professor **Ghassan Aouad**
Head of
School of Construction and Property

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The Building and Fire Research Laboratory (BFRL)

is dedicated to meeting the measurement and standards needs of the building and fire safety communities (builders, suppliers, owners and fire safety professional). The Laboratory's vision is to be the source of critical tools - metrics, models, and knowledge - used to modernise the building and fire safety communities. Our programs are identified, developed, carried out, the results implemented, and consequences measured in partnership with key customer organisations.

BFRL studies fire science and fire safety engineering; building materials; computer-integrated construction practices; and structural, mechanical, and environmental engineering. The laboratory conducts investigations at the scene of major fires as well as structural failures due to earthquakes, hurricanes, or other causes. The knowledge gained from these investigations guides research and is applied to recommendations for design and construction practices.
CIB during the past

10 years

Wim Bakens, CIB Secretary General 1994 –

It is not an easy task for me, as the current Secretary General, to talk, in a neutral way, about how CIB has developed over the past ten years. Being in this position since the end of 1994, I have been a part of leading developments – indeed some actually took place in part due to my initiative and some in spite of my views. I feel it is almost impossible for me to give an independent view but I will try.

I intend to explore the following:

- Developments within CIB General Secretariat
- Developments on CIB Membership
- Developments on CIB Commissions
- Aspects of the Pro-Active Approach strategy
- Recent developments and near term future challenges

CIB General Secretariat

In 1994 I was appointed new Secretary General (SG). On the agenda of the new SG, increased productivity and professionalism in the work carried on by the Secretariat were top priority.

With the impact of the Internet age on any kind of networking and international collaborative work, it was essential for CIB to modernise. Through efficient implementation of a modern working structure and a novel systematic approach to tasks, productivity has dramatically increased. However as a result of going digital on the web, demand for the Secretariat’s services increased substantially, without a proportionate increase in staff.

CIB Membership

Membership development during the last 10 years can be summarised as follows: growth occurred at the beginning of the period followed by some years of stabilisation and more recently a decline. (See Figure 1, 2 & 3 for details). Analysis shows that both the growth in the period 1995 – 1999 and the decline after say 2000/2001 happened in all categories of membership (Full, Associate and Individual) in all regions (albeit that it started in Europe) and amongst all types of organisations.

Questions arise – Does the recent decline in membership reflect a worldwide temporary economic decline? Does it reflect demographic changes within the CIB community such that many reached retirement age recently, or is it a declining interest in building and construction related research worldwide, especially in developed countries? Or is CIB experiencing competition and a decline in the attractiveness of the services to members? Maybe a closer look at the CIB Membership can provide an answer.
Whereas at the beginning of the nineties many national research organisations could rely on near guaranteed government funding, such funding in fact disappeared around the year 2000 for many of those organisations. Easily accessible resources disappeared; immediate returns on investments became more important and for many commercial pressures made it more difficult to justify some activities including CIB membership. This I believe is a large part of the explanation for membership decline.

Today’s demands for CIB services particularly emphasise value for money from participating in CIB activities, a challenge we must meet.

CIB Commissions
Some specific developments:

- more than 2/3rd of all Coordinators were replaced during the period 1995-1996, which rejuvenated the commissions’ leadership
- Since 1997 new activities can start only as Task Groups if they show a clearly defined focus, committed deliverables and in principle a life expectancy of three years only. In the case of successful performance of defined tasks, it may be proposed to be upgraded to a permanent Working Commission
- All Task Groups and Working Commissions are nowadays requested to participate in the CIB triennial World Building Congress.

In general, all commissions now have a far stronger focus, than before, on:

- providing tangible output, for example in the form of reports or other types of publications
- cooperation with other commissions, for example in joint projects and through jointly coordinated series of meetings
- actual committed projects for which funding has been attracted

This is very different from the traditional commissions of say ten years ago, that had stand-alone meetings (preferably in enjoyable locations), at which, on a voluntary basis, people met and did not care, that much, about tangible outcomes and justification of investments.

We have now grown from an organisation with 50 or so commissions, with little visible outcome and impact, into an organisation with a structured effective program of related and cooperating activities. The aim of commission activities is now, through more commitment-based projects, to provide highly visible outcomes and organise coordinated series of events. Both the triennial CIB World Building Congress and the major international conferences, held by clusters of commissions grouped by scientific interest, are main platforms for these joint activities.
The Pro-Active approach (PAA)

The decision to initiate the PAA was one of the outcomes of the discussions on a new CIB Strategy that took place in 1997. The PAA is a decisive contribution towards more commitment based and outcome/impact oriented working within CIB.

From the start three priority themes, Sustainable Construction (SC), Performance Based Buildings (PBB) and Revaluing Construction (RC) were identified.

The approach envisaged for each theme was as follows:

Lessons learned from the PAA after some 7 years:

iii) commitment based collaboration between members (member consortia) in contributing projects and

iv) Selected strategic partnerships which complement available CIB resources in areas such as budgets and manpower.

Lessons learned from the PAA after some 7 years:

- the envisioned member consortia did not materialise
- to realise a program per theme may take far more than three years; for example in the SC area, we in fact started with a PAA approach in 1995 and we are still working in this area.
- the resource demand on the Secretariat has been far bigger than expected
- A strategic partnership is possible. For example in the PBB area, a big breakthrough came from an EU grant of 2.5M Euro to finance the PeBBu program.

Recent developments and future challenges

CIB, in collaboration with member organisations and strategic partners, has been working more and more towards starting collaborative projects developed as EU and UN proposals. Those proposals can be characterised as big opportunities with big investments, BUT consequently big risks. Do they also lead to competition amongst members?

Another recent activity aiming at strengthening CIB are the Student Chapters activities. Originally identified as an opportunity in 1998 these are seen as an investment in future growth. There are now around 12 chapters and more are underway - PhD conferences and chapters symposiums in different regions of the world are strongly aligned with other CIB activities. As mentioned earlier, a decline in membership has been one of the recent trends observed. This has led to lower income and ever increasing demands on the Secretariat with limited resources. This cannot continue indefinitely. When looking at other developments it is clear that we face a number of challenges to which I have given some personal thought.

Concluding remarks

During the years 1994-2003, CIB has gone through major transformations affecting:

- Working tools and culture at the Secretariat
- Fluctuations in the CIB membership
- More focus and output oriented activities in Commissions' work
- Implementation of the themes Performance Based Building, Sustainable Construction and Revaluing Construction through the Pro-Active Approach
In order for CIB to cope with the challenges inherent to a constantly changing world in the 10 coming years, clear strategies will be needed for.

**Membership retention**
A well-developed Program and funds for marketing and promotion are needed. This should not be solely the Secretariat’s task; all members should contribute to attracting and recruiting new members. I believe CIB should focus closely on the growth potential in Asia and North America as well as niche opportunities such as material manufacturers, ports authorities, etc...

**Member consortia**
Member consortia should be setup. This would offer a new formula for commitment based production of defined PPA outcomes AND provide an alternative to relying on EU and/or UN projects, which is not a sustainable approach.

**Organisation**
A synthesis should be achieved between traditional/voluntary CIB activities and new commitment/contract based ones: use the one to strengthen the other. I look forward to a lively debate on these and other issues.
Bringing quality to the built environment

The National Research Council's Institute for Research in Construction is a recognized leader in the development of a quality built environment through research, innovation, and the creation of integrated solutions. Working with national and international partners, IRC addresses construction issues that have significant economic impact and that affect industrial competitiveness, public safety and the environment.

The Institute carries out its activities in the construction sector focusing on applied research, certification and training.

Its mission is aimed at the improvement of the built-up environment, the performance of permanent research to find new construction methods and technologies, the management of refrigeration aspects, homes comfort, sustainable building, the assessment of performance and quality of construction products and systems.

The Institute develops multimedia tools and takes care of training for the transfer and dissemination of good practices throughout the sector.

irc.nrc-cnrc.gc.ca

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Dr. Sherif Barakat  CIB President

**Organisation** - NRCC-IRC - National Research Council Canada - Institute for Research in Construction, Canada  
**Expertise** - Building Performance including Indoor Environment - Building Envelope and Energy Efficiency  
- Management of Multi-Disciplinary Research Programs/Teams

As Director General of the NRCC Institute for Research in Construction (IRC-NRCC), Dr. Barakat is responsible for the leadership and management of Canada’s centre for construction technology, employing over 220 skilled staff. He started working at IRC-NRCC shortly after completing his doctorate in mechanical engineering at the University of Manitoba in 1977 where he had also obtained his M.Sc. in 1975. He became responsible for IRC-NRCC research on passive solar heating in 1980 and program manager for the ventilation and air movement in buildings program in 1986. He was appointed head of the building performance laboratory in 1988, director of the indoor environment program in 1995 and Director General of IRC-NRCC in 1998, after having been acting in the position since the previous year.

A member of the Association of Professional Engineers of Ontario, Dr. Barakat also takes an active role in national and international committees and associations. As well as being President of CIB and a member of the Management Board of the CIB Development Foundation, he is involved with the Boards of Directors of Continental Automated Building Association (CABA), FATECH and the Canadian Construction Research Board (CCRB). He is also the past Chairman of Executive Committee for the International Energy Agency’s IEA Energy Conservation in Buildings and Community Systems program.

Dr. Jacque Rillong  CIB Vice President

**Organisation** - CSTB - Centre Scientifique et Technique du Bâtiment, France  
**Expertise** - Building Physics - Fire Safety

Jacques RILLONG graduated chemical engineer. He joined CNRS the French national scientific research centre and got a PhD degree in chemical thermodynamics. After a two years experience as associate professor in Columbia, South America, he joined CSTB to develop fire and fire safety computer modelling. His first contact with CIB was at a CIB W 14 meeting in 1977. He then coordinated successively CSTB research programme on building energy efficiency and, starting in 1982 the whole CSTB research activity. At the same period he was appointed Professor at Ecole Nationale des Ponts et Chausées and Director of ENPC PhD Programme on building science and technology. He has been the main organiser of the CIB triennial Congress in Paris in 1989 and was elected CIB Programme Committee member. He joined the CIB Board in 1995. A few years later, in parallel with his responsibility of Scientific Director of CSTB, he became director of Civil Engineering and Building Department of ENPC. Back to CIB Board in 2001, he was elected CIB Vice President. In the last 15 years, he directed a dozen of PhD, was active in numerous French and European councils or committees and contributed to CIB strategic thinking. His personnel investment on the major problem of climate change lead him to chair in 2003 the French consulting group on building sector contribution to the national so called Plan Climat.

Jacques RILLONG has for a long time been an active supporter of international cooperation and has always been very keen to dedicate his own energy to progress of knowledge and to improve human being's basic quality of life.

Dr. Rodney Milford  Programme Committee Chairman

**Organisation** - CSIR - Division of Building and Construction Technology, South Africa  
**Expertise** - Technology Management - Civil Engineering - Construction Industry Development

Dr. Rodney Milford is Director of the Division of Building and Construction Technology (Boutek) of the Council for Scientific and Industrial Research (CSIR) in South Africa.

From 2001 - 2003, he served as a member of the Board of CIB and also as Chairman of the Programme Committee and a member of the Executive Committee of the CIB Development Foundation. He is also a member of several South African construction organisations and institutes.

Dr. Milford is the author and co-author of 44 papers in local and international journals and conferences, co-author of one book. He has been involved in several national and industry policy initiatives, and was a member of the drafting team of the South African government's White Paper on Creating an Enabling Environment for Reconstruction Growth and Development in the Construction Industry.
Prof. Vahan Agopyan  CIB Vice President

Organisation - Escola Politécnica da Universidade de São Paulo - Departamento de Engenharia de Construção Civil, Brazil
Expertise - Engineering on Building Materials - Building Quality and Engineering - Education

Professor Agopyan has been Dean of the Escola Politécnica, University of São Paulo, since March 2002 and a faculty member of the Department of Civil Construction Engineering, Escola Politécnica, University of São Paulo, since 1975. He is a consulting engineer on building materials and has been a Member of the Board of FAPESP (The State of São Paulo Research Foundation) since 2001 and a Member of the Technical and Scientific Board of CAPES (Ministry of Educação and Culture) also since 2001. He has been Chairman of the Board of IPEN (Nuclear Energy Research Institute) since 2003. He was the former Vice-president of ITCOC (Brazilian Institute for Building Technology and Quality), 1997-2000, and former Chairman of the COBRACON - Brazilian Committee of Civil Construction (linked to ABNT - Brazilian Technical Standards Association), 1994-1998. He is Vice-President and Member of the Board of CIB.

Dr. Valter Espositi  CIB Treasurer, Administrative Committee Chairman

Organisation - ITC-CNR - Institute for Construction Technologies - National Research Council of Italy, Italy
Expertise - Mechanical Engineering - Energy Conservation in Buildings - International trend surveys on construction, building and housing research

From June 1998 to date Dr Espositi has been a member of CIB. In April 2001 he was notified by the CNR to the CIB as Italian representative. He was then re-elected as a member of the CIB Board for the three-year period 2001-2004.

On this occasion, the CIB decided to elect him as Treasurer of CIB and as President of its Administrative Committee with specific responsibilities concerning financial and personnel management. On the same occasion, he was appointed by the CIB Board as a member of the Board of the CIBBdF, a foundation having its main office in Rotterdam and subject to the Dutch law, whose task is to manage research activities of the CIB or related to its field of interest. He was then elected by the CIBBdF Board as President of the Foundation for the three-year period 2001-2004.

Prof. Frits Scheublin

Organisation - HBG, Netherlands
Expertise - Architecture - Engineering - Construction Management - Design Management Expertise

Frits Scheublin (1946) graduated from the Technical University of Delft, The Netherland, Faculty of Architecture in 1972.

For the first 10 years of his career he worked as an architect and design manager in The Netherlands and in The Middle East. In 1982 he switched to construction management consultancy. He became director and partner. After 11 years as an independent consultant he made the step to the construction sector and was appointed managing director of HBG Engineering. HBG merged recently with BAM. Frits is now director of BAM Engineering.

In May 2003 has became a part-time professor in Construction Technology at the Technical University in Eindhoven, The Netherlands.

His research focuses on industrialisation of the building process and on safety and health issues in construction.

Frits Scheublin joined the board of CIB in 2000 as a representative of the industrial members. As a board member his special interest is with the Re-valuing construction programme of CIB. He is secretary of the CIB foundation and an active member of W 104, the working commission on Open Building Implementation.

Prof. Peter Lanley

Organisation - University of Reading, Department of Construction Management & Engineering, United Kingdom
Expertise - Simulation Futures - Management - Education - Strategy - Innovation - Ageing Society - Inclusive Environments

Peter Lanley joined the University of Reading in 1994 after 14 years as Director of Building Industry Research at Ashridge Management College. For many years his major long-term interest was helping construction firms improve their performance. He is one of the few construction academics to have received a major innovation award, in this case for the development of the internationally acclaimed AROUSAL simulation system.

Since 1997 he has been very involved with the development of the EPSRC EQUAL initiative and with facilitating a stronger interdisciplinary community of researchers focused on the needs of older people and disabled people.

He has advised national and international bodies on organisational and management development issues and governments throughout the world, on the evaluation and assessment of research and innovation programmes. For most of the past 15 years he has been involved with the Board of CIB, where he has taken special responsibility for the CIB Working Commissions and Task Groups involved the needs of older people and disabled people.
Dr. Thomas Galloway

**Organisation**: Georgia Institute of Technology - College of Architecture, USA  
**Expertise**: Urban Planning - Design Administration - Urban Design

Dr. Thomas D. Galloway is Dean and Professor at the College of Architecture, Georgia Institute of Technology, located in Atlanta, Georgia. He came to Georgia Tech from the College of Design at Iowa State University where he served as Dean and Professor from 1989 to 1992. He has also held faculty and administrative appointments at the University of Rhode Island and the University of Kansas. Dean Galloway has been active in a number of professional associations, serving as Chair of the national Planning Accreditation Board from 1986 to 1992, a member of the national Commission on Recognition for Post-secondary Accreditation from 1994 to 1995. He is a member of several boards of directors including the Building Futures Council, the Design Futures Council, and CIB.

Dr. James Hill

**Organisation**: NIST National Institute of Standards & Technology - Building & Fire Research Laboratory, USA  
**Expertise**: Testing and Performance Standards for Building Equipment - Ventilating and Air Conditioning Equipment - Lighting Equipment - Systems and Controls - Building Envelope - Indoor Air Quality

Dr. James Hill joined the National Institute of Standards and Technology (formerly the National Bureau of Standards) as a Mechanical Engineer in the Thermal Engineering Section, Centre for Building Technology, in September 1972. He served as Leader of the Thermal Solar Group from 1978 to 1980 and Chief of the Building Equipment Division from June 1980 until October 1986 when the Division was expanded and reorganised as the Building Environment Division. Dr. Hill became Deputy Director of the Building and Fire Research Laboratory in February 1999 to October 2003. In October 2003, he was appointed Acting Director. Dr. Hill is a member of ASHRAE, has held numerous positions on committees and councils of the Society since 1972, and was the Society’s President in 1996-1997. Dr. Hill was Assistant Professor of Mechanical Engineering at the University of Maryland for three years before joining NBS in 1972.

Dr. Toshiaki Fujimori

**Organisation**: Shimizu Corporation - Institute of Technology, Japan  
**Expertise**: Management - Non-destructive Inspection - Welding

In 1964 Dr Fujimori began his career with the Shimizu Corporation, Tokyo, Japan, where he today works as managing director of the Institute of Technology Planning Office. In addition to his work at the Shimizu Corporation, Dr. Fujimori has also been a part-time lecturer and advisor at the Osaka University. He is also a member of several professional associations and committees. He is a member of the ASCE/CEERF Corporate Advisory Board and the Engineering Academy of Japan; a Committee member at the Ministry of Economy, Trade and Industry and Ministry of Education, Culture, Sports, Science and Technology; Vice President of the Japan Oceanic Industries Association; and a member of the CIB board.

Dr. John Duncan  Immediate Past President

**Organisation**: BRANZ - Building Research Association of New Zealand  
**Expertise**: Atmospheric Corrosion - Materials Durability - Quality Assurance - Research Management

Dr. John Duncan trained as a corrosion scientist, being awarded a PhD in Chemistry by the University of Auckland in 1973. After a short period at the University of Nottingham he joined the Building Research Association of New Zealand (BRANZ) as a materials scientist in 1977 and since 1985 has held a succession of senior management posts in that organisation. His present role is Manager, Building Industry Research. He has responsibilities for defining the research programmes which BRANZ funds, and interfacing to industry organisations and NZ Government research funding agencies. John is a Fellow of the NZ Institute of Chemistry and a Fellow of the Institute of Corrosion. He was elected to the CIB Board in 1992, and was elected Chairman of the Programme Committee of the Board for 1995-1998 and President of CIB for 1998-2001.

Prof. George Ofori

**Organisation**: National University of Singapore - School of Design and Environment, Singapore  
**Expertise**: Organisation and Management of Construction
Ir. Rob Lenaers
Organisation - Belgian Building Research Institute, Belgium
Expertise - Technologies

Prof. Thomas Kvan
Organisation - The University of Hong Kong - Faculty of Architecture, China PR
Expertise - Facilities Management - Computer Aided Design - Architecture Professional Practice

Prof. Dr. XiLa Liu
Organisation - Tsinghua University - School of Civil Engineering, China PR
Expertise - Structural Engineering - Safety Control - Structural Construction

Prof. Juho Jaarimaa
Organisation - VTT Building and Transport, Finland
Expertise - Building Physics - Performance Concept

Dr. Peter Newton
Organisation - CSIRO - Commonwealth Scientific and Industrial Research organisation Australia
Expertise - Local Government - Geographic Information Systems - Manufacturing and Infrastructure

Dr. Tamas Bankey
Organisation - EMI - Non-profit Company for Quality Control and Innovation in Building, Hungary
Expertise - Fire Protection - Toxicity of Gases Released by Burning of Plastic Materials Used in Building
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Whither CIB

John Duncan, Immediate Past-President, CIB

Introduction

Nothing is surer than that change will happen in CIB, just as it has done increasingly quickly over the past decade, let alone over 50 years. The crystal ball which we might use to identify the key issues that we will need to address would give each of us slightly different results – all the futurology web sites seem to give subtly different messages. Yet we can be sure that there are some trends in the environment in which CIB will operate with which all could identify. Some of these will be related to attitudes toward sustainability, to demographic changes, and to the power of information and communication technologies. I wish later to explore some potential impacts of these on CIB.

The role of the building and construction sector

We should first briefly examine the image of the industry with which we work, for this might create true challenges to the work of CIB in promoting research and innovation in the building and construction sector. Simply because Man has been building since his origins, many observers regard this sector as a ‘sunset industry’. As a research field, the built environment is not as ‘sexy’ as biotechnology or nanotechnology, and politicians don’t generally get very excited by it unless the building is a showpiece, or there has been a disaster.

These observers disregard the repeated studies which show that an innovative and efficient building and construction sector is a key building block of every economy, no matter how ‘developed’ or ‘developing’. They disregard the need which every country has to maintain and continually improve the huge investment in its built environment. And they disregard that the culture of the industry is of continuous innovation, as the next project is on a different site, posing different challenges, and often with a different team involved.

Improving such an industry is a major, complex task; yet research and development offers substantial potential to contribute to support of economic growth through improved planning, delivery, operation and maintenance of the built environment.

It may be that the general actions of the sector do not encourage observers to think of building and construction in this light. Remedying these oversights, by drawing attention to the significant economic and innovation impacts, and showing ways to enhance industry efficiency, is one of the challenges of the ‘Revaluing Construction’ theme which CIB has recently embarked upon, which seems to have struck resonances in many of the developed countries. An already obvious role for CIB exists in ensuring international cooperation in evaluating the principles underlying innovative methods of procurement of construction and innovative management of the construction process are shared on an international basis.
It may be, too, that CIB will need to develop better indices that show the importance of the built environment to the health budgets of nations if it is to engage the attention of Governments. Governments seem prepared to invest very large sums of money, increasing annually, in their health budgets. There seems qualitative acceptance that the built environment has impacts on both personal health and community health. Can we quantify the exact impacts? The broad CIB network is ideally placed to deliver the integration of so many facets of physical and social sciences needed in addressing this question.

Many countries have proposed that local research into the most effective and efficient forms of a built environment is not necessary, because globalisation will mean that the new ideas can be imported from elsewhere. Research funders all over the world are looking for synergies of activity and strategic arrangements between organisations, coming from a view that the development of networks, alliance and partnerships are critical success factors for innovation.

It is true that there is increasing globalisation. Information and communication technologies have enabled globally linked design teams. Economies of scale make it possible for major product manufacturers and construction companies to sell their products on a global market — though there seems no data published yet which suggests more than 10% of construction is carried out across national boundaries.

However, every country has its anecdotal evidence of ideas and products and management methods brought in from other countries — where they may have been very successful — only to fail because they have not been “localised” in terms of the building styles and community norms that apply in the new country. To steal a phrase from the environmentalists, national building and construction industries and their advisers in the research fields must “think global, act local”. CIB has delivered this par excellence, encouraging collaborative R&D networks, alliances and partnerships to effectively deal with the complexities of information overload.

The CIB network

A key role for CIB for the future must be to encourage both these “think global, act local” strands — to ensure that the best new ideas do roll around the world, so that those places where they do have relevance have easy access to them, yet to assist the individual localised researchers and research organisations, and the local industries with which they work, to retain access to a sound knowledge base upon which they can build their necessary local solutions.

For this is the real strength of CIB — not a small secretariat in Rotterdam, important as they are in ensuring that the network is maintained. There is a strong Coordinator-led grassroots structure now. The real key to CIB’s future must lie in enhancing these strengths, in integrating the skills of individuals in their own organisations and countries.
These people work cooperatively in a way that massively leverages any available local resources, in teams to address the problems that beset the industry in every country — how to build safely, how to build sustainably, how to build innovatively yet in ways that can be assured to meet the customer needs. The proactive themes which CIB has pursued over recent years emerge because there are these multiple local needs, and become embedded in CIB’s strategy from the top down; but only the network can mobilise the resources to have them addressed. There are two messages here for CIB policy-makers — that themes will only work if they have a real world relevance, and that if the strong researcher network is allowed to wither, or sees new opportunities for growth outside CIB, much will be lost.

External influences.

Looking outside the building and construction sectors, at the influences of the world upon the sector, there are perhaps three key ones. They concern sustainable construction (of which energy is a key component), demographics, and information and communication technologies.

‘Sustainability’

There is a tide sweeping inexorably around the world, in the form of recognition of the issues surrounding ‘sustainability’. The word means different things to different people, and in many consumer societies has connotations of ‘a less luxurious life’ to which consumers don’t really want to subscribe. Yet there is very wide recognition now that we cannot continue profligate use of resources, and that the concepts of ‘reduce, reuse, recycle’ — or the alternative ‘dematerialisation, demobilisation and decarbonisation of energy’ — are creeds that we will need to learn to live with. Energy demand in the world is still rising — some estimates suggest that reticulated energy services will need to deliver 50% more than today by 2020. The Kyoto Protocol’s future is uncertain as this is written — but even in those countries which do not seem likely to ratify it there still seems a recognition that energy efficiency must improve, and that the continuation of the recent rate of growth may be unattainable.

CIB’s first ‘proactive’ theme — before we even really knew we had them — addressed ‘Sustainable construction’. CIB’s ‘Agenda 21 on Sustainable Construction’ published in 1999, and the more recent ‘Agenda 21 for Sustainable Construction in Developing Countries’, have placed CIB in the front rank of international organisations addressing these issues. Having created this position, a major challenge for CIB will be in deciding what to do with it.

‘Demographics’

The populations of the OECD countries are starting to stabilise, and to age. The populations of many of the developing countries are still growing, are generally younger, and are generally still aspiring to reach the standards of living which many in the developed world take for granted. Africa has been predicted to double its population by 2030 and at present has no prospect of being able to provide housing, education and shelter buildings for these people by following traditional procurement/delivery chains.

That potentially means that there are quite different emphases on the research that will assist each country. Given the enormity and the complexity of such tasks, research and development activity mediated through organisations such as CIB offers substantial potential to contribute to improving quality of life.

It is surely going to mean scope for much more of the types of work which CIB has done on issues related to accessible construction for all, no matter their economic or physical condition. It is certainly going to mean more work on the types of urban forms that might be important to accommodate a different age profile from today, in preparation for a time when transport fuels are more expensive in real terms.

That’s the demographic impact on society, but what might it mean for CIB itself? As these population structures change, are we attracting the right numbers of researchers into this industry? We have created in the past five years several ‘Student Chapters’, and these are running with apparently considerable enthusiasm in some of our Associate Members. These were never expected to give us a real pay-off in greater direct CIB memberships for a number of years — but hopefully they are extending the concept of CIB and what it can offer to wider groups of students, not all of whom will end up as researchers. Are there other things we should be doing to ensure our CIB activity leaders of the future are getting the background training and participation opportunities that will be essential to make contributions in CIB circles?

"CIB’s ‘Agenda 21 on Sustainable Construction’ published in 1999 and the more recent ‘Agenda 21 for Sustainable Construction in Developing Countries’ have placed CIB in the front rank of International organisations addressing these issues"
Information and communications technologies

Information and communications technologies have revolutionised some of the ways the industry works. Applications include CAD systems in design, with around the clock work on them by ‘timeshifting’; virtual reality representations of the construction process itself, and of the finished built environment to allow client ‘walk-through’ before the foundations are even started; and automatic building environmental control systems for temperature, humidity, lighting levels, and so on. All of this relies on new data and reliable models, which CIB is well-placed to deliver. CIB has a strong group of IT-conversant participants, who can use their skills to help to bring to implementation the work of those in other CIB activities. We may also need to enhance our groups that look at how we create and manage information in our research environments for the good of the industry.

The ‘Communications Age’ makes it much easier for other groups to be established as email forums, without the need to work via CIB. CIB may need to further enhance its information technology systems yet, to ensure that those small groups do not siphon off the life-blood of CIB – the participants in the Working Commissions and Task Groups. Many of these operating groups have their own web pages, with many of these hosted on the CIB site. It might be necessary for a fuller expansion of this, such that the CIB website becomes the essential port of call for anyone wanting information, rather than needing to trawl through many ‘chat rooms’ and other sites. Is another coming CIB theme ‘the essential information, in the form you want it, when you want it’?

CIB has worked hard to develop a cooperative and collaborative activity with organisations such as RILEM, IABSE, UICB, and others.

The strengths of the relationships wax and wane, but they are always there. A challenge for CIB will be to maintain a central role in such relationships as new organisations emerge. Another challenge might be to get the CIB web page address onto every construction industry portal in the world, highlighted as the key place to visit to get coordinated and reliable information on new ideas in the sector and on authoritative information on developments in well-established fields.

The ‘Communications Age’ has of course revolutionised society far beyond just the fields of focus for CIB. Some have suggested that this ‘Communications Age’ will render unnecessary the structure of meetings and conferences which are widely used in CIB work today, and that the ‘Coordinators’ of the future will be more adept at managing virtual teams, by email, rather than face to face activity. CIB might wish to strenuously retain, though, the tradition of meetings and conferences. It may be hard to explain in logical terms the benefits of discussions, face to face and few on few, in testing of ideas, resolution of disagreements, and shaping of future collaborations, but all of us who have participated in them know the value.

There is no doubt that information technologies have already brought huge changes – and gains – to CIB. The amount of paperwork flying around the world has been dramatically decreased, and the speed of delivery and the ability to search for what is wanted in CIB generated information has immeasurably improved. CIB Information is no more in printed form – but every researcher in every CIB member organisation can get a personalised email notification of new things emerging from CIB, as they happen.

Conclusion

As we look back on our 50 years, we can justifiably feel proud of the position which CIB has already developed as the foremost international network organisation for research and innovation in the building and construction sector. Its future must involve maintenance of this position, by keeping its sights on the truly international body of knowledge that is generated, and integrating all of the research organisations around the world into its network. We will know we have achieved that when the introduction of the acronym CIB to any discussion does not need any elaboration, but is immediately associated with ‘quality information about a better built environment’.
There is a day to day need for new information within the Dutch building industry. SBR is the source of this information, especially the information regarding technology, the building process and management. SBR supplies new, readily applicable information which the market demands, now and in the future!

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The Construction
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Board (cidb) of South Africa congratulates the CIB on reaching its 50th anniversary.

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We are working towards building a total construction sector capability to achieve national economic and social development objectives.

We value our relationships with international partners, sharing knowledge, innovation and best practices. Working with stakeholders we seek to drive performance improvement and sustainable growth of the industry.

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James Hill
17/06/03

James Hill is a member of the CIB Board of Directors and a member of the Programme Committee. He became involved with CIB eight years ago after starting work at a US National Building Research Lab, where membership was actively encouraged.

"One of things that we try to encourage in all our staff at the National Institute of Standards and Technology is to build a network of people doing similar research around the country and around the world. We've learned a lot, maintained various relationships, and some of us have done cooperative work with these partners that we have gotten to know through the CIB.

"One value of the CIB is the development of relationships between researchers. It makes it easy to obtain additional professional help when needed if we have those relationships in place. For example, when the World Trade Centre (WTC) disaster occurred, it had a huge impact on the U.S. One consequence of this was to have NIST do a formal investigation of why the WTC towers collapsed. In general people know why they collapsed, but we were charged with doing a thorough investigation to explain technically what brought the buildings down.

"We did not have all the capabilities to carry out the investigation; but because we knew people through our relationship with members of CIB, we were able to call on them for advice and counsel and encourage their involvement in our investigation. We are now looking at contractual arrangements with a few of these partners. That's an example of where we've been able to call on colleagues directly."

Looking to the future, Dr Hill believes that the CIB has to develop its international profile and evolve its ways of working if it is to remain successful.

"The primary way CIB's responsibilities are changing is that the leadership of CIB have, in the last six years, decided to take a top-down, pro-active approach to identify the major research issues for the construction industry around the world. They have organized programs to address those issues. Prior to that, CIB was probably driven primarily from the membership itself on the working commissions and the task groups. I think change in the future depends on how successful they are in this approach. They have decided on three major programs to tackle. I think the jury is still out on whether they're going to be successful.

"Future challenges of research and innovation for CIB are to maintain its relevance, maintain its membership, and continue to be a vital organisation. There is tremendous competition for researchers' time and commitment around the world. CIB needs to remain vital so researchers attach themselves to CIB as opposed to other national or international organisations.

"The construction industry itself is changing and the policymakers in the various countries of the world are pushing the construction industry to change. The challenge is for the industry to adopt new technology and transform itself so it can become more competitive. We are in a much more global economy now than we have been before and the construction industry is still largely national as opposed to international.

The question is - what can CIB do to assist the construction industry to change and become more vital? That's a question that has to be addressed every year.

"I think the themes certainly address some of the most pressing issues the construction industry faces. I do have a concern about to what extent we have been able to involve the membership in the working commissions and the task groups and the work on those themes. Certainly, we've been very successful at attracting attention for our planned activities, in some cases even securing funds from the EU to take on particularly the performance-based building program. I think the involvement in the of the membership commissions to date has been woefully modest. CIB is a membership-based
organisation. The vitality is in the members, and we've got to work harder to involve them in the activities that we have chosen to undertake.

"CIB has always focused on the built environment. The working groups and commissions that we've had over the years have focused on issues that exist in buildings as well as the design of new buildings. I don't see CIB needing to change in that regard. The industry itself has got to change, and I think CIB can help by doing research that will help them advance. In the last five or ten years, there's been a big emphasis on the construction industry adopting information technology and automation the way many other industries did 20 or 30 years ago.

"There are things that CIB could learn from other organisations. As I talk to other people in the US membership in CIB, I find that many are already participating in other organisations in the States. The professionals get a lot of value from working in these organisations where very specific results are being produced, and something tangible is available that has an obvious impact on the industry. For example, some produce handbooks that are used as industry bibles. The CIB provides a lot of value as a forum, but if it produced more tangible products, I think more professionals would be inclined to participate in the organisation."
The Faculty of Construction and Land Use of The Hong Kong Polytechnic University is the only Faculty amongst local universities specific to the construction and land use fields. We are committed to the education of professional manpower as well as research and development work that facilitates the advancement of application-oriented knowledge. The Faculty is the largest contributor in Hong Kong to university-based research in construction. Our particular strengths are structural analysis and design, vibration measurement and control, fire engineering, building performance and energy efficiency studies, environmental engineering, IT in construction, construction economics and land surveying & geomatics.

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The Norwegian Building Research Institute (NBI or Byggforsk) is the leading national centre of technical and sociological research and development in Norway, specialising in building and the built environment:

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2) To quickly respond to issues of major public interest concerning the construction and improvement of buildings and cities.

BRI joined CIB in 1959 and since 1969 the Chief Executive of BRI has served as a Board member of CIB. CIB Board Meetings were held in Japan in 1977 and 1990. BRI also functions as the Organiser of CIB Domestic Council of Japan, providing Japanese CIB members with information.

URL: http://www.kenken.go.jp/english/index.html
Rodney Milford is chairman of the CIB program committee and his organisation has been involved with CIB for the past 30 years. Over this time he has seen the benefits of membership for his organisation, and for himself.

"Over the years, participation in the activities of the CIB has been of tremendous benefit to my organisation, and to me personally. I have personally benefited primarily from contact with other members of the board and exposure to international trends and international developments. It has been an excellent opportunity to interact with my peers.

"Individuals from my organisation that have participated in the activities of Commissions have also benefited significantly from the international networking and interaction with their peers, resulting in growth and learning experiences.

"Coming from a country with a small research community, the ability to access and gain knowledge and share information is very important. We need to meet internationally, to network, and to keep abreast of what is going on. Access and transfer of technology is vital, and the CIB is a very effective mechanism for that.

"My organisation needs the benefits of a strong organisation like the CIB. I believe the international research community would be a weaker body if it was not for the CIB.

With his long-standing involvement in CIB, Dr Milford can see how CIB has changed over the years and has ideas on how its influence will develop in the future.

"The changes in the activities of the CIB over the years has reflected the changes in the international R&D community. It has reflected international trends, and in some cases the CIB has influenced these trends.

"In the past, CIB was very much driven by the R&D efforts of a collective of individuals. In addition to this approach, the CIB more recently initiated the pro-active approach, synthesising current trends and identifying key focus areas where R&D effort is required. These themes were influenced by debates with many international organisations, and have largely been determined by those participating in CIB activities.

"These focus areas have been determined by those institutions that form part of CIB, aligned with their needs and their objectives. Looking to the future, I see that the alignment between the activities of the CIB and the needs and objectives of the member organisations of the CIB will become stronger and stronger.

"The CIB is not the board, it is not the office structure, but it is the membership. The interaction between members creates new capabilities, which are being focused through the working commissions and the pro-active approach. The CIB can only make that impact through its members, leveraging each other.

"CIB is championing the role of performance based codes, sustainable construction, and re-valuing construction, and this is going to bring about a change within the industry. Internationally there is a debate about the value of the built environment. The built environment, and the construction industry, is an asset that needs to be developed, and in many countries that asset is not valued. CIB will continue to play a leadership role that helps to bring about positive change in the built environment and the construction industry, internationally and within individual countries.

"CIB is already playing a role in pushing frontiers forward. Looking ahead, CIB needs to encourage more interdisciplinary work and I think that over the next few years you will see CIB taking a stronger role here. Another area that the CIB needs to become more involved in is the area of the skills requirements. The future 50 years ago was all about technology trees, working from the technology upwards. Today the model that is required is what are the skills required for the future?"
"Research is not only about technology now, but the context in which technology is applied and one cannot divorce oneself from that debate. Clearly there is therefore scope for CIB to be involved in pre-policy research, and to influence policy that impacts on the future of the built environment, including investment in R&D for the built environment. Much of the work that I am doing in my own country in this regard is because of the strength of CIB."
Faridah Shafii
22/02/04

Assoc. Prof. Dr. Faridah Shafii, Board member & Coordinator, CIBTG50 Construction Technology & Management Centre, Universiti Teknologi Malaysia

Assoc. Prof. Dr. Faridah Shafii first became involved with CIB eight years ago when participating at the CIB co-sponsored Conference on Construction in Beijing, China. Being on Board of CIB and also the Coordinator for the Task Group on Tall Buildings, Dr. Shafii's interests and involvement in CIB has helped to project her organisation's image to international status.

CIB is the international organisation covering every aspect of building research and built environment. It provides an up-to-date information on construction, research trends and development. Being a Research Manager at the university's construction centre, such valuable information is important for steering as well as fostering research interest amongst staff at the university. The CIB website featuring various information on building research provides good reference and guidance and has assisted us in the research development at the university.

Apart from capturing the latest information on specific areas, my involvement in the task groups and commissions gives an opportunity to exchange information and forming networks with experts around the world.

In many ways CIB has helped to promote the centre (CTMC) internationally through coordination of activities and hosting of CIB events. These have also given the Centre to get involved with significant discussions and agendas relevant to today's environment.

One of the distinctive benefits of being a CIB member is the networking with experts around the world. Any development of research requires up-to-date information and having these experts within your reach will facilitate and speed up acquiring of information. Additionally, this will also open up opportunities for joint activities to synergise research efforts in the areas concern.

The international co-operations brought about by CIB and networking has certainly facilitated works for CIB and CIB members especially when time and financial factors are limited.

An example was the tasks given to then, newly formed CIB Task Group on Tall Buildings (CIBTG50), immediately after September 11th, 2001. Although newly formed, the group has to mature quickly in order to address issues contributing to a detailed understanding of the matter and participate in international agendas surrounding tall buildings at that time. This could not have been made possible without the international co-operation with relevant councils/organisations and participation of members from existing network. One might debate that many organisations are more willing to work with each other considering the significance of issues at that time but I believed the credibility and openness of CIB to approach others and be accepted, have a great impact on the overall outcome and success. The CIB passport to future networking is certainly an attraction and could help in the expansion of membership.

Looking to the future, I see that CIB will remain as the guidance of research in construction with its responsibility to provide knowledge and information on the built environment. The fragmented nature of the building construction industry ensures that the list of subjects/topics to be dealt is not exhausted considering the problems constantly faced by the construction industry. In order to be effective in playing such roles, CIB has to be ready always to deal with emerging and timely topics of relevance to the industry. This means that CIB has to attract more members from industry where their voices will act as guides and references to future development of research and ensuring the relevance of CIB.

The challenges of CIB is keeping CIB attractive and relevant to construction professionals. Currently, universities are the member category contributing to the net growth, and I believed this trend will continue for as long as CIB remains a research-based organisation. With these regards, the involvement of young researchers are considered vital as they shape the future of CIB. Having them as members at the early stage of their career would help them to be involved in the network and
championing these efforts in the future as they progress through their careers. Extending membership opportunities to an individual student is an investment for CIB worldwide promotion, besides students chapters.

In sustaining professional interest, CIB has to respond and align itself to emerging needs of the construction industries and therefore, the involvement of practicing professionals are equally important to provide advice and shape up CIB activities.

The multi-disciplinary nature of CIB has the potential to not only, engaging in research on technological factors but addressing others like safety and social which are now gaining demands since the tragic events of September 11th. Research topics like human behavioural or social aspects were very little associated to any building design before the WTC incident. In their deliberations of the international agendas, CIB-TG50 found these factors crucial for performance of buildings during emergencies. As this is associated with life safety, such topics should be given consideration in CIB future activities.

CIB has gone a long way promoting research on Sustainable Construction with far reaching outcomes to benefit the construction industry. Embedded in sustainability are cultural issues (brown issues) pertaining to construction. CIB has a role to play by incorporating this topic in the respective groups dealing with building construction.

Finally, sustainability requires a considerable amount of innovation for it to be successfully implemented. With its current multi-disciplinary activities CIB can play a role by innovating its resources to encourage reliable innovations which would certainly keep CIB in demand in years to come.

One of the most valuable assets in any research are their documentations. CIB has produced a significant amount of useful documentations in the past. Research publications in the form of guidelines and standards are far reaching as it can be used by the industries. Importantly, it demonstrates high quality research which could be put into practical use. Where possible, CIB should encourage task groups or working commissions to produce output of their works in such form.

CIB is picking up momentum in South-East Asia with its increasing number of activities carried out in the region. More activities on timely topics should be organised here to widen CIB's publicity and promotions. Obviously, any activities associated or with emphasis on developing countries and warm climates would be of interest to generate greater involvement by professionals in the region. The upcoming Conference on Sustainable Building 2004-SEA is a timely event to support promotions of sustainability in the region.

Addressing topics related to ASEAN needs is a potential means to encourage CIB membership expansion in the region. The development of Agenda 21 for SEA will bring together all SEA countries to discuss various issues on sustainability and I believe, ASEAN would look forward to the continuing support from CIB to assist with its research development and implementations of these concepts.

In conjunction with this special publication, I wish to congratulate CIB for its 50th Anniversary celebration.

Long Live CIB!

50 years of International Cooperation to Build a Better World.
Hiroyuki Yamanouchi

20/02/04

Dr. YAMANOUCI, Hiroyuki was appointed as CIB Board Member in 2001. Since then, he has been involved in CIB; the Board Meeting in Rotterdam was the first time activity for him.

To strengthen the relations between CIB and my institute (BRI), research staff is being encouraged to have interests in or participate in CIB Task Groups or Working Commissions that are relevant to our research. In particular, younger researchers are strongly expected to have relations to CIB activities and publications.

In Japan, BRI has organised for more than 25 years national CIB information meetings, and plays a role of secretary and has an advisory function toward academic people, industries and non-profit organisations that are at various levels, members of CIB. In addition, BRI has also produced a brochure that introduces CIB and its activities in Japanese.

Looking at the future role of CIB, it would be desirable to form an even more effective platform for international cooperative research development and events as well. New themes/topics or activities that I wish to see CIB involved in on such a platform, would include international research and development on disaster prevention in the built environment, and research that enhances safety (peace of mind for users) related to buildings and houses.

I think that CIB is unique in its nature and the only single International organisation dealing with so broad fields related to buildings, houses and urban planning. Therefore, I have few ideas on lessons to be learned from other more specialised international organisations such as RILEM, IABSE and so on.

Finally, a given question for me would be: what can CIB do more and/or better in Japan? I think that first of all, Japanese communities of building engineering and construction are basically lacking in information and advertisement about CIB. That is, most of those people do not know CIB itself or are not familiar with the activities and functions of CIB. To improve this situation, I think that BRI and CIB should jointly do something.
## CIB Task Groups and Working Commissions as of April 2004

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### Extent of Involvement of Task Groups and Working Commissions

- **Architectural and Outcome of the Task Group or Working Commission:**
  - Very little of special importance to the respective Theme or Area.
- **Architectural and Outcome of the Task Group or Working Commission:**
  - In principle always aRE of special importance to the respective Theme or Area.

### Abbreviations of defined Themes and Areas

#### Themes

- **SC**: Sustainable Construction
- **PBB**: Performance Based Building
- **PC**: Planning and Construction

#### Areas of Scientific Interest

- **GEN**: General Issues, Innovation, Regulation, Information, Education
- **BT**: Building Technique
- **BMT**: Construction Materials and Technologies
- **BPH**: Building Physics
- **BKE**: Buildings and the Built Environment
- **DB**: Design of Buildings
- **BE**: Built Environment
- **BP**: Building Process
- **MOE**: Management, Organisation and Economics
- **LPP**: Legal and Procurement Practices
In its quest to improve well-being and safety in buildings, CSTB plies four complementary trades: research, advanced engineering, quality assessment and the dissemination of knowledge. In combination with its fields of expertise, they allow CSTB to adopt a global approach to buildings which includes their urban environment, services and the new information and communication technologies.

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Please quote ref CIB when making enquiries.
CIB - International Council for Research and Innovation in Building and Construction

Formally known as "Conseil International du Bâtiment"

The world Premier International Network offering a cross-disciplinary platform for collaboration to improve the Built Environment

CIB membership includes more than 400 member organisations but also individual members, resulting in a worldwide database of over 7000 experts covering virtually all aspects of Research in Building and Construction.

The student Chapters Activities are a dynamic link to the researchers, practitioners and decision-makers of tomorrow.

Through targeted partnership with organisations such as FIB, IABSE, ECCS, RILEM, IEA, ISO, UNEP-IETC, ISIAQ CIB promotes collaboration with other international organisations.

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The acronym CIB stands for “Conseil International du Bâtiment”, which was the original French name of the organisation.

CIB and the Pro Active Approach (PAA) Themes

Performance Based Building (PBB)
Excerpt from the agenda developed by CIB on Performance Based Building:
Prescriptive building specifications and building codes and standards currently enforced in most countries inhibit both organisational and technological innovation in the building and construction industry. Performance Based Building strives to overcome this problem by using performance requirements to define a building product’s fitness for purpose.
Performance Based Building addresses the ends rather than means. This is a strong stimulus for product and process innovation and enhances consumer-orientation. When applied, Performance Based Building will result in very different relationships between the building and construction industry and its clients, and will provide a new language for communication between the various practitioners in the Building & Construction industry.

Sustainable Construction (SC)
Some of the definitions of Sustainable Construction used within CIB:
Sustainable Construction: the sustainable production, use, maintenance, demolition, and reuse of buildings and constructions or their components. This definition may include for instance the use of local construction materials that do not require long distance and energy wasting transportation, construction technologies that generate less construction waste and require less energy and methods of demolition (or even better, deconstruction) that result in more re-useable construction components and materials.
Sustainable Buildings and Built Environments: contributions by buildings and the built environment to achieving – components of – sustainable development, for example through the planning, design and maintenance of healthy and less energy consuming buildings, and urban environments that discourage the use of private motorised transport.

Revaluing Construction (RC)
During the last couple of years a group of researchers within the CIB community have been actively working on developing a programme on Revaluing Construction. In the initial discussions, the theme was actually defined as “Re-engineering Construction”. Revaluing Construction has been defined by CIB (from a text by R. Courtney and G. Winch) as:
“The deliberate and managed process to optimise the contribution of the construction industry in meeting construction demand, in promoting social and economic objectives, industry performance and competitiveness, and improved value to clients. This endeavour addresses the role and contribution of all who add value to the delivery process, from inception to hand-over and maintenance. These include public and private sector clients, built environment professionals, constructors, materials manufacturers and suppliers, training institutions, regulatory bodies and research institutions. Re-engineering Construction is likely to lead to radical changes in their operations.”