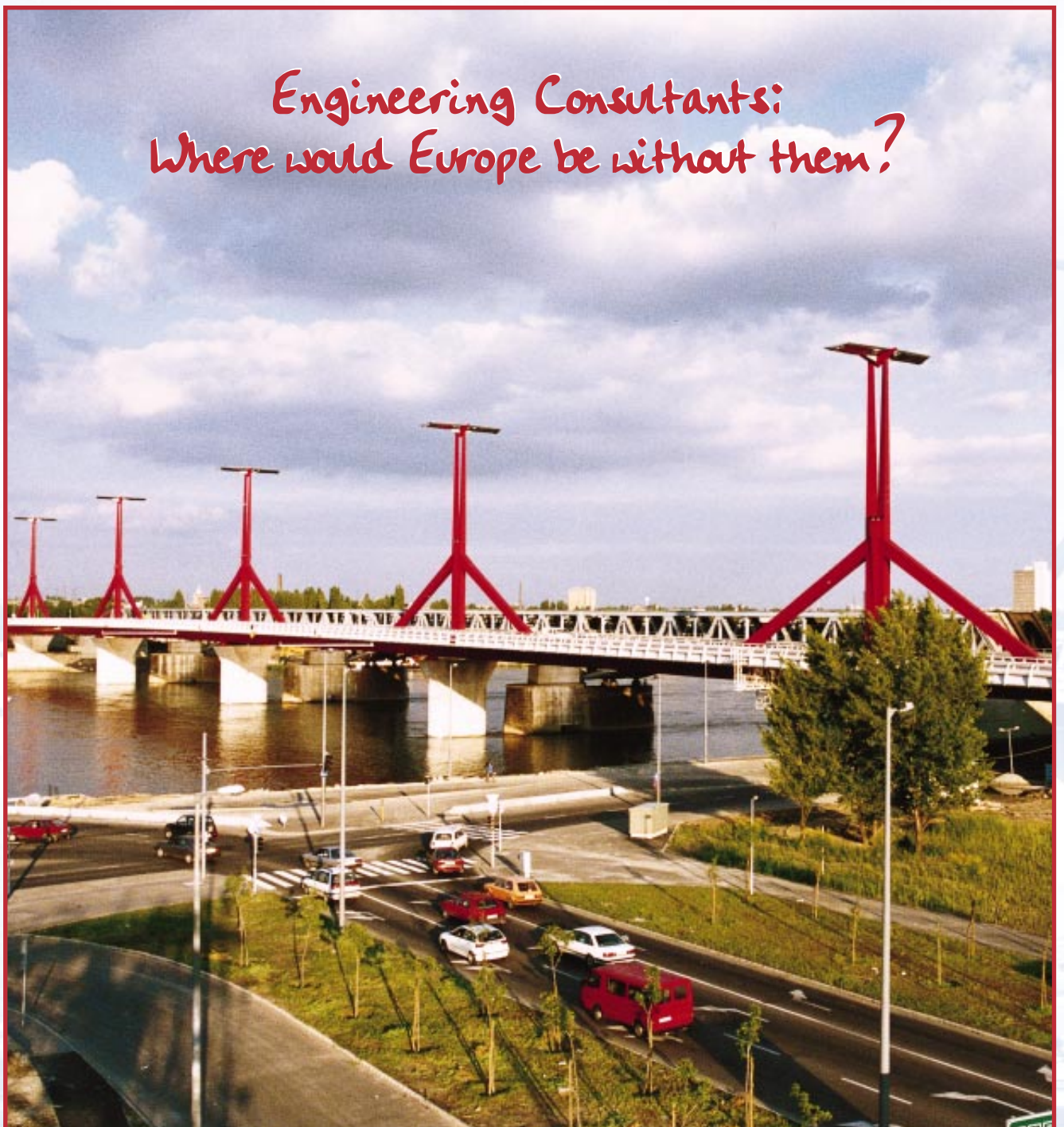




EURO newys

N° 24
MARCH 1997

*Engineering Consultants:
Where would Europe be without them?*



THE LÁGYMÁNYOS BRIDGE

Construction and commissioning of the Lágymányos Bridge on 30 October 1995 were important events in the development of the traffic system of Budapest. The bridge carries the road traffic of “Hungada boulevard” across the Danube to the Buda side, by-passing the downtown area.

Between the two double-lane roadways two tramway tracks can be accommodated on the new bridge built along the existing Southern Railway Bridge. The 2 by 2 lane access roads of 6 km total length include

Danube.

Several utilities are accommodated in the cells to improve services in the two parts of the town.

Its design and the unique mirror-reflection lighting system are of outstanding aesthetic appeal and make the new bridge a valuable feature in the urban landscape of Budapest.

The owner of the bridge project is the Mayor’s Office of the Capital Budapest, who engaged the services of Hungarian consultants and contractors for implementation. The Engineer was the Traffic Development,



Photograph: by Dr. Sándor Domanovszky

utility ducts entrance and exit ramps, bridges over railway lines and roads, as well as noise barrier walls. The structural system consists of a steel box girder, which is continuous over six spans and is suspended from inclined bars. The box girder divided along the centreline by a web features a flat bottom plate and an orthotropic deck slab. The five towers are 35 m tall and carry 100 mirrors on each side which provide a highway lighting system used for the first time on a bridge.

River-bed regulation works carried out parallel to construction have improved flow conditions in the

Investment and Engineering Services company “METRO” Ltd. The design work was performed by the firm “UVATERV” in cooperation with the firms Hidépítő Speciál Ltd., Fömterv PLC., Dévényi and partner, Architects Ltd. and the Steel Structures Department, Budapest University of Technology. The designer of the connecting road networks and structures on both sides was Fömterv plc. The general contractor of the load-bearing structures was the GANZ Steel Structures PLC, while of the substructure the Hidépítő PLC. Several other companies and scientific institutions were involved in project implementation.

To our readers
Please remember that this copy of EFCA Euro News could
also be of interest to other people

For internal circulation to:

- ✓
- ✓
- ✓

PROFESSIONAL LIABILITY IN EU CONTRACTS



EFCA has prepared a policy paper on professional liability. This work was initiated on the background of a widespread dissatisfaction among member firms with the way professional liability was handled in many EU contracts for consulting services.

The problem is especially related to the DGI and the Phare/Tacis programmes where this issue is not at all dealt with. Contrary to this, DGVIII has a contract standard which in most cases deals satisfactorily with the problem. Probably based on many more years' experience of large scale contracting of consulting service. The key issue is to realise that the problem does not go away by not being dealt with.

Mistakes may unfortunately occur in all projects, and the best way to deal with such situations is to define contractually how this is handled and how the costs/losses are covered.

To require unlimited liability in terms of time and money makes very little sense. Few consultants have unlimited financial resources and the Client would seldom be able to ascertain how much money a consulting firm would be able to pay should a mistake occur.

The EFCA policy on professional liability

EDITORIAL OFFICE:
Mr. Hugh Woodrow

EDITOR:
Mr. Jan Van der Putten

ADDRESS:
EFCA Secretariat
Ave de Cortenbergh 79, bte 7
B - 1000 Brussels
Phone: (32-2) 732 49 90
Fax: (32-2) 732 51 26
Modem: (32-2) 732 89 46
email: efca@efca.arc.be

TABLE OF CONTENT

	page
THE LÁGYMÁNYOS BRIDGE - FRONT COVER STORY	2
PROFESSIONAL LIABILITY IN EU CONTRACTS	3
SHIFTING TO ... PRIVATE FINANCING: A UK EXPERIENCE	3
GREEN PAPER ON PUBLIC PROCUREMENT IN EU: HOPES AND DISAPPOINTMENTS	5
AMALGAMATING QUALITY AND PROJECT MANAGEMENT A PIONEER DEVELOPMENT IN SWITZERLAND	6
HUNGARIAN CONSULTING ENGINEERS READY FOR EXPORT	7
A FRESH LOOK AT FIDIC CONTRACTS	8

is in line with the FIDIC policy and takes as the basic principle that liability must be defined in terms of time and money. This will enable the Client to assess the consultant's ability to cover it from own finances or the need to take out insurance that will secure the required compensation. Most consultants would want to have such insurance anyway and clients' interest are better taken care of through insurance cover than through a claim on the consultant's assets.

The EFCA board welcomes this policy paper and will initiate a dialogue with the relevant parties within the Commission in order to - over time - get the standard contracts for consulting services changed in accordance with the above.

Mr. Steen Frederiksen
Member of the EFCA Board of Directors

SHIFTING TO ... PRIVATE FINANCING: A UK EXPERIENCE

Increased importance is being given to the role that private sector finance, management and innovation can provide in the provision of public sector infrastructure and services. Mark Bostock of Ove Arup considers the progress concerning the introduction of the Private Finance Initiative (PFI) in the UK. Following article is based on Marc Bostock's address to Constructec 96.

The PFI was first introduced in 1992 by the British government because sufficient tax was not being raised to meet the costs of maintaining, renewing and improving the social and economic infrastructure. Or, to put it another way, government spending in these areas was not seen as a priority because it was felt that

initiatives could be created to make the private sector fund them. The aim was, therefore, to provide the means by which the private sector could be the provider of public services be they in government buildings, roads or railways.

In PFI projects the concentration is on the provision of a public service as a result of a capital expenditure. In other words, the emphasis is being placed on whole-life costing, revenues and risks; in the UK the argument being that much of the procurement for engineering design services and construction has traditionally been on the creation of the asset and not on its performance over its economic life. Furthermore, the public sector in itself is not a particularly good procurer of the capital asset as reflected in the high differential between out-turn and tender costs.

The PFI has become the government's main instrument for delivering high quality and more cost effective public services. Its aim is to bring the private sector more directly into the provision of public services, leaving the public sector as the enabler and, where appropriate, guardian of the interests of the users and customers of services. It is not simply about the financing of capital investment in services, but more about exploiting the full range of private sector management, risk taking, commercial and innovative skills. The PFI is meant to be creating the opportunity for the private sector, by investing in new capital assets, to become a provider of services in areas which have traditionally been the preserve of the public sector. Those who bid for the work do so on the basis of whole-life costing, revenue streams and costing the owners' risk of creating and operating a business.

There are generally three types of PFI projects:

- financially free-standing projects: the private sector undertakes the project on the basis that costs will be recovered entirely through charges for services to the final user (generally the private sector) e.g. tolled bridges.
- services sold to the public sector: project cost is met wholly or mainly by charges from the private sector provider to the

public sector body which lets the contract, e.g. privately financed prisons, hospitals and government buildings.

- joint ventures: project cost is met partly from public funds and partly from other sources of income, with overall control of the project resting with the private sector. This is most appropriate for projects where the social benefit is thought to be greater than the revenue it would generate, e.g. a road designed to lessen congestion.

In the second and third project categories, the overall effect in terms of government accounting is to shift



The Channel connection between France and the UK is a typical PFI project

capital spending to current expenditure via payments for services, in many cases on an annual basis.

For the consulting engineer working in the public sector market in the UK there has been a fundamental change in the procurement of his or her services. In many cases the policy changes introduced in 1992 threaten the public sector market of many firms. We can no longer expect traditionally procured appointments for designing new public sector owned assets to drop through our letter boxes. The client base for this type of work is changing rapidly and it is no longer an individual government department through its procurement office, rather it is the new private sector players - operators, financiers, contractors, developers facility managers - often working in consortia and bidding for business opportunities first advertised in the Official Journal of the European Union.

Characteristically, there is little or no cash on the table to pay for professional fees for engineering services, plan-

ners, lawyers or accountants. The players are bidding for the business at risk and they expect those who wish to be involved with them to carry their own share of the risk in the early stages of pre-qualification and shortlisting. In many respects this is no different to normal business development costs. While this may be true, few of us are willing to accept it as the bidding costs associated with PFI projects are high, as are the risks.

The skill split is also different. In PFI projects there tends to be significant up-front creativity and innovation, all of which is required to identify and then secure projects which are commercially viable and fundable. Normally it is not just a question of responding to a developed specification, it is a matter of creating it specifically in the context of whole-life costs and revenues, in conjunction with cognisance of the business risks. The emphasis is on project creation, a skill set which many firms of consulting engineers traditionally may not have in-house.

Fundamentally the Initiative was welcomed by the private sector because of its impact on business levels. It provides a basis for injecting much-needed capital into the country's infrastructure and this should have a beneficial effect in reviving the construction industry in the UK. However, many players in both the private and public sectors are suffering from fatigue and frustration over its implementation. Many of the private sector concerns are now well known:

- the lack of continuity in opportunities; construction industry leaders have been critical of the slow progress made in approving privately financed schemes which, it is said, have been insufficient to compensate for large cuts in public spending in areas such as roads health and housing;
- the high costs of bidding: there is evidence that these far exceed the costs which have been incurred historically;
- obsessive competition seeking, including the tendency to keep two bidders in the frame up to the signing of the concession/development agreement;
- the apparent inability of government selection and approval bodies to see the wood from the trees in choosing the preferred private sector participant, and the resulting slippage in meeting deadlines;
- the number of failed or stalled initiatives;
- uncertainties surrounding statutory approvals and the consequent risk of promoting innovative solutions;

- the poor response from the finance sector in understanding, managing and accepting certain risk types which government wish to have transferred to the new private sector supplier.

Despite all the problems over implementation, government's switch to being an acquirer of services previously provided by themselves, rather than of the assets which enable them to be the provider, is likely to stay whatever government is in power. Thus the implications of this dramatic change of policy on asset procurement are expected to remain. The consulting engineers' attitude and approach to this developing market will have to adapt accordingly.

THE "GREEN PAPER" : HOPES AND DISAPPOINTMENTS.

In the recent past, the EU Commission published a considerable number of Green Papers. The latest one, issued in December 1996, is entitled : "Public Procurement in the European Union: exploring the way forward". It is particularly important, as it aims to evaluate the difficulties and achievements of the Union's Public Procurement policy and legislative framework, the ideas on how to speed up the internal market, and the extension of its progress.

Generally speaking, in a Green Paper the Commission sets out its views on how to deal with a particular problem and discusses the available options. These may range from doing nothing on an EU level to proposing extensive EU-wide harmonising legislation. A Green Paper usually calls for interested parties, targeted groups or businesses to present their views. Often a Green Paper is followed by a "White Paper" which sets out, based on the information it has gathered, the policy solutions which the Commission (EC) considers most appropriate. This may or may not include coming up with legislation.

This Green Paper is the subject of a large number of debates throughout the EU. Government officers and trade associations are beginning to circulate their reactions and answers. They are invited to submit their comment and suggestions to the EC before the end of March. The EC will present an action plan at

the next EU Summit in Amsterdam in June.

At the end of last October, the EC conveyed a "Communication from the Commission to the EU Parliament and the Council on the impact and effectiveness of the single market". Prior to the publication of this Green Paper, the EC commissioned a number of studies among which a recent June 1996 report unveils a number of difficulties, shortcomings and problems experienced in the procurement of services. This EC is more cautious and for some aspects only a general review of the present situation. It presents a long description of the application and enforcement of Single Market rules, and the effects on the EU's economic performance. Very little attention is given to the sector of intellectual services, even less to engineering consultancy. Finally, the Green Paper was published last December.

Having monitored the consolidation of national Public Procurement laws and rules into a few compact EU Directives, the Green Paper is - again - believed a relevant oversimplification of a complex reality. A delicate sector as ours is in practice not examined for its peculiar characteristics. Once more, this might entail the risk of not distinguishing one of the more productive human brain activities as design and engineering from other price based commodities.

Although the EC focussed on the "reduction of barriers" in the Single Market, it is inquiring why market integration is not growing as quickly and as well as expected. A conclusion is that, eventually, the paper might again not go far enough.

The EFCA Task Force on Public Procurement has been monitoring the expected revision of the Directive. On the basis of material gathered together and the Green Paper, the second draft of a note to the Commission is now being examined by the task force members and the EFCA Board.

EFCA is not very happy about the little attention given in the Green Paper to the issues and proposals on our profession it has submitted and explained many times to the Commission. Therefore the note reiterates the lack of thorough consideration given to issues such as quality (versus price), in-house engineering, the classification of intellectual business services and commodities under one heading in annex 1A of the services directive, and many other articles

in the existing Services Directive. A special section carries a list of proposed modifications to articles in order to match the Directive with our real business. The final version of the note will be delivered in a few weeks time. The task force will keep you posted on the development.



*Mr. Aldo Sala
Chairman Public Procurement Task Force*

AMALGAMATING QUALITY AND PROJECT MANAGEMENT IN CONSTRUCTION. A PIONEER DEVELOPMENT IN SWITZERLAND

Many clients and consultants are sceptical as to the impact the ISO 9000 series of standards can have at best on the quality of the buildings. In Switzerland the Quality Forum, a panel representing all major associations of the construction sector, attempted to achieve better collaboration in construction projects by means of a unified QM doctrine, including an interpretation of ISO 9001 for the role of the client. It was believed that once every project partner - client, engineer, contractor, supplier - would watch his side of the interfaces, a coherent "quality chain" would result.

Experience since 1994 revealed that this is not automatically the case. Due to the complexity of large projects, even the perfectly controlled performance of all project partners (an increasing number of them certificated) does not necessarily satisfy the client. Moreover, elaborate quality management planning for a particular contract can become expensive, up to 2% of the project costs have been reported. Hence a way was sought in which the goal-setting and steering function of the client could be reinforced and at the same time savings be effected. The QM efforts would have to be better coordinated and focussed on the critical project features (vital requirements and fatal risks). This tasks is called PQM, i.e. project-specific - quality management.

Based on permanent QM systems in all major organisations involved, the additional procedures focussing and joining the quality efforts for a particular project could be kept rather brief. Instead of writing a hefty project management handbook, the magic formula reads $PQM = QM + rP$, i.e. only the gaps between the contributing QM systems need be filled. This is done in a quality master plan (or "quality control plan"), which will be complemented by individual quality plans of the various project partners, amending their QM systems only as necessary. The initiative must come from the client or a general project manager, who has to set the quality requirements with view to both the building as physical object and the design & construction process, prescribing the extent of inspections, records and traceability.

Quality requirements will be negotiated on an equal basis with costs and delays and included in the contracts. However, they cannot be cast in rigid clauses, as otherwise learning and phasewise alterations would be impeded. After extensive discussion in the Quality Forum, a balanced concept is about to appear as revision to the SIA Technical Memorandum 2007 (available in German and French). An English digest of the PQM concept, put in perspective to the ISO 10006 Guidelines on Quality in Project Management, was published in volume 2 of the Proceedings of the IPMA'96 World Congress on Project Management by AFITEP, Paris.

From this development, in which USSI took a strong lead, the engineering consultant is expected to benefit in many ways: clearly defined goals, better structured projects, improved flow of communication and decision making, eventually the function of general project manager (if conceded). First tentative applications were reported at the USSI quality management symposium last May and will form the theme of a joint ASIC/USSI symposium in October 1997. Readers may contact the USSI secretariat (Fax +41-56 / 442 25 08) for proceedings and programme.



*Dr. J. -Martin Hohberg / USSI
Swiss Delegate to the EFCA Task Force on QM*

HUNGARIAN CONSULTING ENGINEERS READY FOR EXPORT

The Hungarian Society of Consulting Engineers, the predecessor of AHCEA, the present FIDIC member organisation, was founded in 1932.

The Association of Hungarian Consulting Engineers and Architects (AHCEA) was reorganised in 1992 and legal continuity was acknowledged at the Madrid Annual FIDIC Conference in June, 1992, where Hungarian membership was renewed.

AHCEA became an observer member of EFCA in June, 1996.

Since its reorganisation, AHCEA membership fluctuated between 38 and 43 (presently 39) consulting firms, on which admission the Board decides on a case by case basis considering the information presented in conformity with the Statutes and by-laws.

Small (1-10 employees) and medium size (10-50 employees) private consulting firms form the core of the association's membership. The total number of staff and employees in the member firms is 638, the average personnel varies from 16 to 20.

The structure of fees and prices underwent drastic changes since the political upheaval. The prices of essential technical items (computers, office equipment, cars) comprising a decisive proportion of the company costs are practically identical with those in the industrially developed countries, while the fees for consulting services, which have to come mostly from the "disturbed" domestic market amount to 30-35, exceptionally 40 per cent of the common average fees in Western Europe. Higher levels of remuneration are attainable under export-contracts alone. Increasing the share of export contracts is in the fundamental interest of the world-wide acknowledged Hungarian professional expertise.

Regardless of the aforementioned difficulties, the 1996 turnover of the AHCEA member firms has attained HUTF 2.4 billion (round ECU 15 million). The annual income of the non-member consulting firms may be 2.5 to 3 times as high.

The foreign debt inherited from the former political regime, the collapse of the Eastern markets have

inflicted grave and lasting economic burden on the population of Hungary. Since 1990, only once has the annual inflation dropped below than 20 per cent. In 1996 it was 23 per cent. Credit is offered by commercial banks at interest rates higher than 30 per cent. Hungarian Engineers rely for their competitive edge on high levels of qualification, relatively low fees, flexible adaptation to professional requirements and the spreading proficiency in foreign languages (English, French, German).

Slow improvement of the income/cost ratio (efficiency) is anticipated basically as a result of the growing appreciation of high-level engineering services. Growing competition on the export markets is presumably to increase the demand of large western consulting firms for cheaper East-European engineering services on third markets.

Infrastructure projects in the fields of transportation and sewage treatment have been accorded priority in Hungary. Following privatisation in the power industry, other public utility companies have been earmarked for privatisation.

At the General Assembly Meeting of AHCEA convened under the Statutes in April 1997, board and presidential elections will be held. To cope with the increased number and complexity of tasks, the statutes and by-laws will also be revised and submitted to the General Meeting for adoption.



*Mr József Éhn
President of AHCEA*

FIDIC & Engineering Contracts

A FRESH LOOK AT FIDIC CONTRACTS

The role of the engineer in FIDIC contracts has always caused a degree of controversy. While many accept the principle of an unbiased qualified engineer who can act impartially in the resolution of problems during construction of a project, others believe that it is not possible for an engineer to act fairly in some circumstances. This difference of opinion was highlighted recently by a study into various aspects of the use of FIDIC's Conditions of Contract for Civil Engineering Works (the Red Book).

The study, carried out for FIDIC and the European International Contractors Association (EIC) by Reading University, revealed that whilst the majority of clients and consultants responding to the questionnaire believe that the Engineer is impartial, the majority of Contractors believe that the Engineer is not.

Findings such as these, combined with international trends in dispute resolution have contributed towards FIDIC's decision to make available immediately the principle of the independent Dispute Adjudication

Board (DAB) to users of the FIDIC Red Book. The mechanism for setting up a DAB is provided in the newly published Red Book Supplement, available from FIDIC priced 15 Sfr plus mailing charges.

Already established in FIDIC's Conditions of Contract for Design/Build (the Orange Book) a Dispute Adjudication Board consists of one or three individuals appointed jointly by the client and the contractor at the beginning of the contract. The decisions made are binding, although if not accepted by both parties to the contract, such decisions may be reversed in subsequent arbitration or litigation.

A similar approach has been taken by the World Bank in its Standard Bidding Document. While generally adopting the FIDIC Red Book, the World Bank replaces the engineer's role in Clause 67 with a mandatory substitution of a dispute resolution board (DRB) for all contracts with a value in excess of US\$50 million. However, unlike FIDIC, the board's recommendation is non-binding.



*Dr Marshall Gysi
Director of FIDIC*