

Reintegrating structures and processes is within our grasp

Colin Harding describes a new system that integrates design and construction teams and encourages collaborative procurement by creating a sole legal entity to take responsibility.

CONSTRUCTION MUST be the only strategic global industry where the design of its products takes precedence over the practicalities and cost of their production, causing budgets to be habitually exceeded and repetition of good design derided. In all others, designers/innovators are an essential, integral part of the overall production team – striving to improve designs and value for the customer, while improving efficiency and reducing costs for the manufacturer. UK construction's increasingly fragmented, adversarial structures and processes mean that for the last few decades, we've been doing precisely the opposite.

At the current peak of the most sustained, most profitable property boom in modern decades, developers, property owners, virtual construction supervisors and designers have been declaring profits up to 20- 25%. Over the same period, the average net profit of the 20 largest UK contractors has fallen to

a break even 1.2%, while costs to clients have been rising at 2% a year above general inflation. Twice the numbers of management staff are employed in the two industries together than is economically justified. The overall construction industry is therefore grossly (and badly) overmanaged and consequently grossly inefficient and unproductive.

In short, the old fragmented, externally supervised system is bust and urgently needs replacing to get anywhere near the goals set out in Mark Farmer's recent report, *Modernise or Die*.

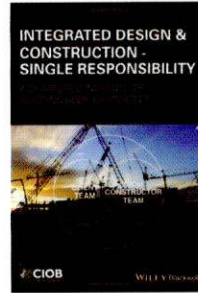
We've known since the Banwell Report in 1964 that the basic problem is fragmentation and the adversarialism it creates. Several previous well-meaning attempts over the last 25 years, aimed at integration and collaboration, have been fudged or obstructed by the well-connected virtual construction factions that need fragmentation, regulation and

conflict to justify their involvement and protect their fees.

A system that genuinely reintegrates the industry's structures and processes has never been made available, until now, through Integrated Design & Construction – Single Responsibility (IDCsr).

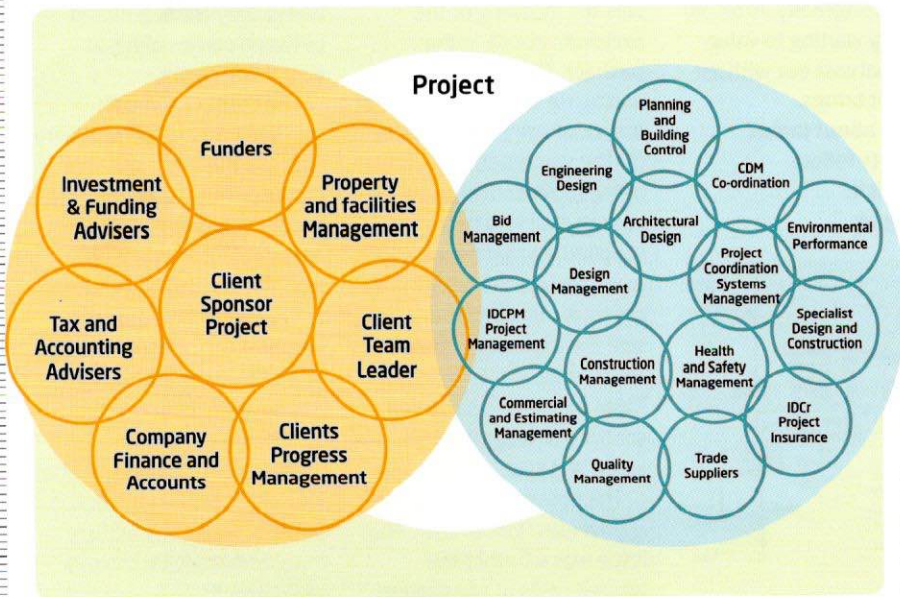
IDCsr is a totally integrated and collaborative procurement, design and construction management system between the client and IDC Constructor (IDCC) direct. The system evolved in the 1970/80s for my own company/client's use and I codified it as the IDCsr Code of Practice with the help of a CIOB working group and staff, published in 2015.

IDCsr is effectively a merger between the real and virtual construction industries where the IDCC employs or engages all the design and construction personnel necessary to deliver the complete project – welding them into a completely integrated and thus collaborative team. It is therefore the perfect vehicle for the use of BIM (or any other digital design/management systems) without additional contracts or protocols.



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The IDCsr integrated team



Integrated Design & Construction – Single Responsibility – A Code of Practice is available from Wiley Blackwell eu.wiley.com

Similar techniques

The IDCsr design management and construction management techniques are very similar to those we have been using for decades – with two important exceptions:

- IDCsr is driven by good process rather than adversarial contract terms.
- Responsibility for the overall design well as the construction rests solely with the IDCC legal entity that signs the agreement directly with the client – ie single responsibility. In doing so, the IDCC acts as a manufacturer selling a finished, custom designed, warranted product, rather than as a “contractor” building to someone else's design and budget. Hence the use of the term “constructors” within

IDCsr rather than “contractors”.

The IDCsr agreement is therefore a product sales agreement direct with the client, rather than a service contract supervised by third parties. The complete model sale agreement terms and conditions are set out in the Code of Practice. The IDCsr system is intended to make it as simple and satisfactory to buy a building as it is to purchase any other high-value, warranted manufactured product.

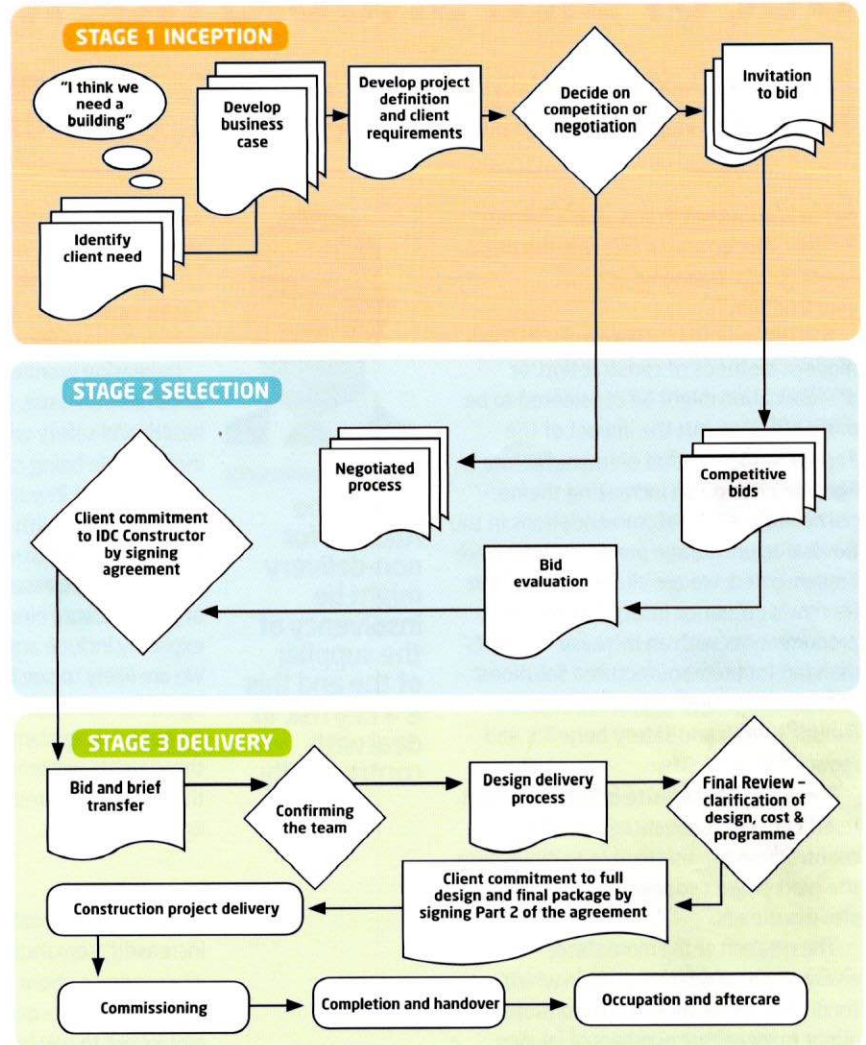
The IDC project manager (IDCPM) drives the process. The role includes being the principal contact with the client, driving and supervising the IDCC’s bidding, design and construction process, in other words, leading the whole project. In exchange for total authority over design and construction, the IDCPM, on behalf of the IDCC, must accept full responsibility for the entire project’s success, supported by the bid manager, design manager, construction manager and commercial manager and their teams.

The project will be covered by the IDCsr project insurance, providing 12-year latent defects warranty, third-party liability and project-specific professional indemnity cover for all practitioners within the IDCC, with a full waiver of subrogation rights.

Overall leadership of the client team comes from the client project sponsor who will chair the client team, supported by the client team manager (CTM), also named personally in the agreement.

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IDCsr’s three-stage process



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Stage 1: Inception

Inception only involves the client team (unless the project is to be negotiated). A “statement of need” for the project is prepared and then a business case developed and its feasibility tested. From that the client’s project definition and project budget are prepared.

Funding needs to be agreed in principle as well as preparations to set up a Project Bank Account (PBA), through which all payments to the IDCC’s team will be made.

This is a significant change to traditional procurement processes. The IDCsr business case is concerned solely with the impact of the proposed construction project on the client’s on-going business. Clients’ IDCsr business cases and budgets are prepared before any design concepts

are developed, giving clients direct control over design-led cost inflation.

The budget is the defining part of the IDCsr client brief – from which the IDC Constructors will formulate their design and construction concept bids for the client’s consideration.

Stage 2: Selection

The IDCsr competitive bid process starts with the detailed transfer of the project definition, budget and client requirements to the (maximum three) bidding IDCC team leaders. The IDCCs each prepare their own concept design and build programme to the budget, for the presentation of the bid. The client team then evaluates the bids and selects the preferred IDCC, agreeing any outstanding issues, and signs the IDCsr sale agreement.

Stage 3: Delivery

The first part of Stage 3 is the full detailed, collaborative design process. Once complete, client and IDC team leaders together review the complete final designs and package and agree any outstanding matters. The client then signs the second part of the sale agreement, confirming acceptance of the full design and construction package, so authorising the IDCC to proceed with construction.

Construction management procedures follow current good practice. A project-specific IDCsr Quality Management Plan is essential, monitored by the IDCPM, IDCC quality manager and the client team manager working together. Payment provisions based on pre-agreed stage payments included within the terms of the

agreement will be paid direct from the PBA within three days of confirmation that the stage has been reached. There are no retentions.

Because the process is entirely collaborative, dispute escalation and resolution should firstly be between the IDCPM and CTM. If that proves to be unsuccessful, the next step should be mediation. The mediator should be appointed in advance and named in the sale agreement.

IDCsr offers great opportunities for all and threatens no one, because its use is optional. Everyone in both client and IDCsr teams is there because they want to integrate and collaborate, not because one party insisted they should use the system, or forced unreasonable contract terms upon them.