

CASE STUDY

House of Fraser analyses the benefits of extranets

Retailer House of Fraser asked two members of its supply chain to analyse the costs and benefits of using BIW Information Channel as a collaboration platform in the delivery of its store projects. Havelock Europa and Simons Construction concluded that the system more than justified the investment, delivering real cost savings of at least 0.25% of the overall project value. The studies identified further benefits that would arise through wider deployment, and House of Fraser subsequently decided to standardise on the BIW system for all future store projects.

Tangible benefits

- **Tangible savings relating to drawing production and management costs, equivalent to between 0.25% and 0.34% of overall scheme values**

Intangible benefits

- **Instant access to current information from any location**
- **independent hosting of system by secure third party organisation**
- **Real-time collaboration between team members**
- **Full audit trail**
- **Transparency of information**
- **Improved efficiency and effectiveness of team**
- **Reduced pressure on individual company IT and email capacity**
- **Electronic archive of project available after project hand-over**

Background

House of Fraser, Britain's leading retailer of designer brands, operated more than 60 stores across the UK (plus one in Ireland). This represented a substantial property portfolio, and House of Fraser was constantly investing in both new store developments and refurbishments to its existing premises.

Recognising that information technology could help increase the effectiveness of its construction projects, House of Fraser encouraged some of its consultants and contractors to try new web-based construction collaboration technologies (also called 'project extranets'). It wanted to evaluate the potential benefits of using such technologies on future store investment projects.

The approach

Retail fit-out specialist Havelock Europa used BIW Information Channel (from BIW Technologies), mainly for drawing management and control, on two schemes undertaken during 2004. The first was the second phase of a design-and-build contract in relation to the Kendals store in Manchester; the second was a shop-fitting sub-contract to Simons Construction at House of Fraser's new store in Maidstone, Kent. Havelock was asked to prepare a cost benefit analysis for House of Fraser.

Havelock had also been responsible for the first phase of the Kendals development - undertaken with the same teams, on the same site, and with similar technical scope. Havelock therefore felt able to make a fair comparison of costs, though the exercise was focused on the management and distribution costs of Havelock's own design and fixtures drawings, and ignored consultant or sub-contractor drawing costs. Havelock also carried out a similar exercise in respect of Havelock fixture drawings for Maidstone; Simons Construction was also asked to evaluate its experiences at Maidstone; and the feedback to House of Fraser from Havelock and Simons also took into account findings from similar projects undertaken by other BIW users, notably Mace and Gleeds.

Havelock analysed the overall cost per drawing on its Kendals projects, taking account of drafting time, drawing management, and printing and copying charges. After deducting the costs associated with the use of the BIW system, Havelock calculated that it had saved approximately £52,000, based on a net saving of £250 per prime drawing. As Mace had suggested that only 25% of drawing-related cost savings could be directly attributed to the use of a collaboration platform, Havelock calculated that the BIW system had saved approximately £13,000 on the second phase of the Kendals project (approximately 0.25% of the overall capital value of the scheme).

Havelock conducted a similar analysis of its drawing-related expenses at Maidstone, applying the same 25% factor. Compared to the traditional drawing management methods previously applied (eg: on Kendals phase 1), the overall saving through using the BIW system amounted to over £37,000 (equivalent to 1.5% of the shop-fitting budget, or 0.34% of the overall project value. Havelock noted "this was also consistent with our drawing office view that a return to traditional drawing management methods would require approximately 20-25% additional resource". Havelock's exercise had excluded potential savings on prelims, but it estimated that total savings of 0.5% would appear to be sustainable for future projects.

It also highlighted various additional but intangible benefits (calculated by Gleeds to be worth up to 2% of the overall capital value of a project):

- Instant access to current information from any location
- No requirement for specialist software, licences etc:
- Secure 3rd party host server, independent of contractors
- Real-time collaboration between team members
- Full audit trail
- Transparency of information (Simons said: "it allows bottlenecks to be identified; all parties can track process")
- Reduced risk of failure
- Improved efficiency and effectiveness of team
- Self managing drawing and document control system
- Unlimited user network - easily expandable at no cost
- Reduced pressure on individual company IT & email capacity
- USB archive available at close of project

Simons' experiences at Maidstone, supported by a detailed SWOT analysis, led it to conclude that there could be major benefits to the supply chain from using collaboration technology, particularly if deployed across a programme of projects; eg:

- historic information builds into a intra- and inter-project 'library' useful to all parties, developing standards, value engineering approaches and best practices so that users no longer 'reinvent the wheel'. In short, lower future costs
- time and cost savings through use by House of Fraser concessions (eg: to prevent fixture manufacturing delays in their supply chains, etc)
- greater cost certainty by applying standard details, leading to a 'fuller', more comprehensive design
- wider use would deliver cost savings from economies of scale, greater familiarity with the system, and risk reduction.

Simons estimated that construction collaboration technology could save approximately £1000 per £1m of contract value in architects' fees relating to drawing production and management

costs. This saving, along with similar savings achieved by other designers as well as the contractor, suggested that use of such systems would be self-funding on future similar projects.

Presented with these findings in December 2004, and after evaluating BIW Information Channel on a further phase of the Kendals store, House of Fraser subsequently agreed to standardise on use of the BIW system for all future projects in its store investment programme, worth an estimated £30 million per annum.

House of Fraser also asked BIW to apply its corporate standards management environment across all House of Fraser projects so that standard store and concession fixture details and other information could be managed in one central location and linked to every individual project.

Management issues

House of Fraser recognised that the results of its initial experiments with construction collaboration technologies were likely to under-estimate the potential benefits (particularly as the analyses focused only on individual companies within the supply chain). The introduction of a 'project extranet' to its projects had involved a steep learning curve for all concerned; further benefits were likely as users became more proficient at using the system, and as more users utilised the system in place of traditional methods of communication and information-sharing.

Key lessons

- **Encourage early and wide take-up** - use of the system needs to be encouraged across the team, from the client right down the supply chain, and from the earliest stages of a project (eg: at feasibility stage). Where it is not used, information gaps will arise, plus gaps in projects' audit trails.
- **Use across all projects** - lessons learned on offline projects cannot easily be assimilated into future projects.
- **Populate system with standard data** - user buy-in is more likely if the collaboration system carries useful, standard information (eg: fixtures details, etc)
- **Configure system to support key processes** - again, user buy-in is more likely if the system streamlines existing, familiar project procedures (eg: drawing approvals), and provides reporting tools to monitor them
- **Invest in training** - this becomes more cost-effective when users access the system repeatedly over a series of projects

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