In 2002 the Scottish construction industry embarked on its own post-Egan path to ‘continuous’ improvement. The formation of a Modernising Construction Strategic Group (MCSG) and its subsequent report Achieving Construction Innovation and Excellence in Scotland was a catalyst for a devolved roadmap intended to inspire and motivate the Scottish construction industry. As a result of the recommendations made by the MCSG the Scottish Construction Forum (SCF) was established in 2004. The aims of the SCF are to provide strategic advice to the industry, the Scottish Government and the Scottish Parliament. Further developments took place in 2007 with the launch of a Scottish Construction Centre (SCC) with a remit to promote innovation and excellence in Scotland’s construction industry and to take over the administration of the SCF. The SCC is a consortium based initiative funded by Scottish Enterprise Glasgow and in partnership with the Construction Industry Research and Information Association (CIRIA) and has also received additional funding from the European Regional Development Fund (ERDF). An overarching umbrella is also provided by a construction industry cross party group within the Scottish Parliament who seek to ensure that Scotland has a world-class construction industry. This paper undertakes a critique of these initiatives and provides evidence that suggests the establishment of a unified and collegiate Scottish construction industry has cultural and political barriers to overcome.

Keywords: construction forum, Scottish enterprise, modernising construction.

WE'RE A' JOCK TAMSON'S Bairns

The title of the paper requires an explanation given it is central to the discussion that follows. The title evolved from the lead author’s involvement in a UK construction improvement initiative (Considerate Constructors Scheme) and subsequent observations, whilst monitoring construction sites, that ‘too many’ site managers/contract managers appeared to lack a strong commitment to improving ‘their’ industry. This led to the development of a presentation delivered at the Chartered Institute of Building’s (CIOB) Dundee centre: Searching for Construction Industry Citizenship Behaviour (CICB) in the Scottish Construction Industry (Murray, 2009). Whilst undertaking a literature search for the paper a PowerPoint presentation (Burley, 2003) was uncovered that showed an image of water droplets on a leaf. Burley, the chairperson of the then Modernising Construction Strategic Group (MCSG) had...
himself recycled the image after observing it at the launch of ‘Egans’ *Accelerating Change* report conference in 2002. He noted that:

*Each of the droplets might represent a firm or organisation in the construction industry. They are all part of the same system, the droplets clinging to the leaf by the tenuous force of surface tension but unaware of the existence of the droplets around about. Somehow we need to create a connected and communicative industry.*

This lead to a degree of synthesis that could be described as ‘convergent evolution’. A “Eureka!” moment suggested the appropriateness of a well know Scottish saying "*We’re a’ Jock Tamson’s Bairns*" as a vehicle for a critique of the Scottish construction industry improvement agenda. The phrase is known to mean ‘we’re all John Thomson’s children’ and does hint towards a level of collegiality by suggesting that "we’re all the same under the skin" (Wikipedia, 2009). The surface tension noted by Burley and the lead authors observations regarding occupational citizenship (CICB) provided the motive for discussing aspects of collegiality, particularly given that in 2009, Scotland celebrated a decade of devolution. Moreover, since 2002, the Scottish construction industry has embarked on its own ‘post-Egan’ agenda, pump primed by public funding via Scottish Enterprise. The paper begins with a brief overview of the UK construction industry improvement agenda before discussing the Scottish construction industry approach.

**UK CONSTRUCTION INDUSTRY IMPROVEMENT AGENDA**

It is now over fifteen years since the publication of Sir Michael Latham’s 1994 report *Constructing the Team*, over a decade since John Egan’s 1998 report *Rethinking Construction* and seven years on since its successor in 2002, *Accelerating Change*. Despite, the historical nature of these publications the report authors continue to be cited as key influencers on the construction industry with their reports recommendations having sufficient longevity to reverberate in the construction industry today. However, as Murray and Langford (2003) noted, these reports were, at the time, the most recent of a long line of government commissioned reports into the construction industry, dating back to 1944. The impact of Latham’s and Egans’ recommendations has been examined by a multitude of ARCOM researchers and it would be unlikely to find a copy of proceedings since 1998 that did not cite these reports. A central tenet of Egan’s report, the implementation of ‘lean manufacturing’ principles within the construction industry appears to have been problematic. Academics such as Green (1999) and Green and May (2003, 2005) provide a much needed scholarly antidote to the weekly construction press (e.g. *Building on the Assembly Line; Get Lean and Get Loaded*) that followed the publication of *Rethinking Construction*. A decade on, the Scottish Construction Centre (2009a) continue to champion ‘lean thinking’ by recommending Womack *et al.’s* (1990) *The Machine that Changed the World* as a key reader. However, constructions CEO’s and owner-managers of SME’s are not known to be prolific readers and given a propensity towards ‘action’ would be better advised to follow the footsteps of other CEO’s such as Tony Pidgley, (Berkeley Homes); Sir Neville Simms, (Carillion) and Stephen Martin (Clugston). All three undertook covert participant observer roles as site workers and rediscovered their business from inside-out (see Wikipedia, 2009; Knutt, 2009)

Egan (2008) has recently reflected on the industries progress and concluded that ‘’if I were giving marks out of 10 after 10 years I’d probably only give the industry about
four out of 10, and that’s basically for trying, for having its demonstration projects, still being in the game, and still having enough there to actually, perhaps with another big heave, get it done the next time around.” However, Adamson and Pollington (2006) provide the most concise explanation behind the development of these three reports. With particular reference to initiatives such as the Movement for Innovation, Rethinking Construction and Constructing Excellence, their critique has an interesting warning for those individuals and bodies involved in modernising the Scottish construction industry. The authors note that the plethora of initiatives also included a Construction Best Practice Programme (CBPP) and Demonstrating Projects to benchmark and disseminate best practice, but that:

*the result was the start of an increasingly complex consultative machinery, with considerable scope for the blurring of objectives, duplication of effort, obscure accountability, and suspicion of motives of different interests.*

**THE CONSTRUCTION INDUSTRY IN SCOTLAND**

In common with other parts of the United Kingdom (UK) the construction industry in Scotland can be described as fragmented with a proliferation of Small and Medium Sized Enterprises (SME’s), particularly in contracting. Moreover, the propensity for micro firms employing fewer than twenty employees is high given the number of rural settings outside the main cities. The repair and maintenance sector is considered by Scottish Enterprise (2009) to be significant due to its special needs in terms of knowledge, skills and materials for the traditional and historic pre-1919 buildings. The legacy of eminent engineers such as Thomas Telford and indigenous contractors such as Sir Robert McAlpine and Balfour Beatty lives on. Overall, the Scottish construction industry contributes around £12billion, around 10% to the nations Gross Domestic Profit (GDP). However, Macleod (2008) reports on a recent survey undertaken by Scottish Building which found that business confidence amongst companies is low and this is evident in the recent loss of 20,000 construction jobs (from around 250,00). Pre-recession projections suggested that the industry would require an annual supply of around 6000 new recruits until 2012. The domino effect related to the number of job losses is particularly worrying given that Hamilton and MacKenzie (1997) reported that for every extra 1000 jobs created in construction, a further 650 jobs are created in the supplier industries in Scotland.

Of particular importance in Scotland, the ruling Government, the Scottish National Party (SNP) has an anti Private Public Partnership (PPP) agenda. Its replacement, a Scottish Futures Trust Limited (SFT) whilst ideological in its remit to cap profits of participating consortiums and their contractors, has failed to ‘set the heather alight’. It has become a political football for the Scottish MP’s (SMP’s) with the former incumbents, the Scottish Labour Party siding with other critics who point to the dearth of projects procured thus far, and jibing that the SNP have broken this electoral promise. One saving grace, albeit mostly symbolic given a relatively low capital spend, will be the public funded construction required to host the 2014 Commonwealth Games in Glasgow. However, like London’s 2012 winning Olympic bid, accounting for ‘optimism bias’ in projected costs and assessing the true legacy will be a key measure of each project(s) effectiveness. The irony being that the new Scottish Parliament building itself was horribly inefficient in construction terms being delivered around ten times over budget and 2 years late. As such, despite a decade of devolution and the new building at Holyrood being occupied since September 2004, it is still too early to say if the building itself and the governance that arises from it, have
been effective. The Scottish construction industry must play its part in this quest. Current works such as the Edinburgh Trams project and future developments such as a 2nd Forth road crossing, as well as small and medium building works across the country have the potential to showcase the ‘world class’ performance called for by the Parliaments Cross-Party Group (Construction).

SCOTTISH CONSTRUCTION INDUSTRY GROUP

The Scottish Construction Industry Group, (SCIG) a pan-industry organisation involving clients, contractors and sub-contractors was formed in 1978 and evolved into five ‘construction colleges’ around 1995. SCIG’s remit is to act as a vehicle to liaise with the Scottish Government and Ministers albeit the formation of the SCF in 2004 has to a large extent taken the wind out of its sails. Although several bodies continue to cite themselves as members of SCIG the history and current undertakings of the group are somewhat difficult to ascertain. This does perhaps show the need for this paper and for documenting the evolution of initiatives within the construction industry in the UK. Subsequent generations will need to know the history of the industry and this paper goes some way to charting the current developments within the Scottish construction industry.

PULLING TOGETHER WEBSITE

‘Pulling Together: What’s on in construction’ was established early on in the movement to improve the Scottish construction industry to act as a ‘one-stop-shop’ website for information on best practice, business improvement and Rethinking Construction in Scotland. The website was used by the Modernising Construction Strategic Group (MCSG) to invite views whilst they engaged with various individual and parties in the Scottish construction industry. No links to the Pulling Together website appear to now exist on the SCF /SCC WebPages yet Constructing Excellence features a page describing the purpose of the webpage as ‘not another initiative’. CE (2009a) note that ‘by providing a common message and common themes, Pulling Together can help prevent confusion within the industry’ and that ‘by regularly logging on to Pulling Together you can access information on best practice and keep abreast of the wide range of activities and services on offer in Scotland’. However, on visiting the website (www.pullingtogether.co.uk) confusion does exist as it appears that the domain is up for sale by its owner! This is a reflection of the plethora of redundant, yet historically important data, accessible on the internet that has the potential to wrong-foot the novice researcher.

MODERNISING CONSTRUCTION STRATEGIC GROUP

The MCSG was formed in October 2002 after the then Scottish Executive’s Minister for Enterprise and Lifelong Learning approved how Scottish Enterprise would take forward a construction initiative in Scotland. This involved a group made up of representatives of clients, industry and government being convened to prepare a 3 year construction strategy and longer term vision. The formation of this strategy developed through consultation with representatives across the Scottish construction industry using an “industry cluster” method that involved mapping the construction sector by identifying its functional and organisational parts and the linkages between them. The cluster map provides a picture of the construction industry in Scotland. It identifies the core processes in the construction process, design and project management activities, the supply chain, the main supporting services that help the industry to operate efficiently as well as the organisations that help the industry to improve and innovate.
Before their proposals for action were finalised the MCSG held a consultation conference that involved nearly 100 people from a cross section of the cluster map. The outcome of this process saw the publication of a report *Achieving Construction Innovation and Excellence in Scotland* that was presented to the Depute Minister for Enterprise and Lifelong Learning in August 2003. Burley (2003) in his role as chairperson of the MCSG arguing that ‘we need to create a connected and communicative industry’. The report’s key recommendations were:

- To create a construction innovation and excellence forum
- To create a construction innovation and excellence centre and
- Facilitate workload continuity by the Scottish Executive publishing a forward plan of construction projects Scottish Enterprise, in consultation with the Scottish

**SCOTTISH CONSTRUCTION FORUM**

The Scottish Construction Forum (SCF) was established in April 2004 with a membership drawn from across the industry. The Forum seeks to encourage best practice, improve research, and increase communication across the construction sector. The SCF (2007a) Industry Manifesto Building a Modern Construction Industry notes that ‘by providing strategic advice to the industry, the Scottish Executive and the Scottish Parliament, the Forum will work to boost productivity and improve standards within the sector’. The SCF’s inaugural independent Chair was Mr Graeme Millar and the first annual SCF report was published at their inaugural conference in November 2005. In (2007b) the SCF sought the opinions of the industry before publishing a Construction Industry Plan 2007-2012 intent on updating and broadening the MCSG’s Achieving Construction Innovation and Excellence in Scotland report. Four strategic themes for the industry were identified as positioning; procurement, people and planet. In addition to the national forum, the Scottish Construction Centre (2008a) note the existence of local construction forums in Aberdeen, Ayrshire, Forth Valley, Fife, Borders, Inverclyde, and a East and Central Scotland Constructing Excellence Club with the west cost of Scotland having a Centre for the Built Environment.

**SCOTTISH CONSTRUCTION INNOVATION AND EXCELLENCE CENTRE**

The Scottish Construction Centre (SCC) was launched at the Scottish Parliament in September 2007 and aims to work closely with the SCF which focuses on providing strategic advice to the industry, the Scottish Government and the Scottish Parliament. The SCF (2007c) noted that the centre secured support from Scottish Enterprise Glasgow who committed a multi million pound package to the deal with the Construction Industry Research and Information Association (CIRIA) for a period of five years. The centre’s remit is to help modernise the industry and act as a platform for sharing information and best practice. Leitch (2008) notes that the SCC has also received £708,000 of European funding although it is intended to be in a self-sustaining position by 2011. In addition to CIRIA, four other organisations form the SCC partnership (University of Dundee, Glasgow Caledonian University Building and Research Establishment and Building Software). The SCC (2009b) argue that Scotland needs the centre because ‘recent industry initiatives (it is assumed the SCC is referring to Constructing Excellence and its past legacy) have failed to create any measurable impact on the Scottish construction industry’. Whilst acknowledging that a lack of commitment is partially to blame, they suggest that the key to modernising Scotland’s construction industry will be to have local knowledge of industry practice and
customs. As a way of permeating local construction practice the SCC have established four nodes in Aberdeen, Dundee, Edinburgh and Glasgow with a further development of 6 Construction Improvement Clubs (CIC’s) planned. This framework reflects the original Rethinking Construction structure for dissemination through best practice clubs and regional cluster workshops.

KEY PERFORMANCE INDICATORS

Adamson and Pollington (2006) provide an account of how key performance indicators (KPI’s) originated within the Construction Clients Forum (CCF) and were subsequently developed by Construction Industry Board (CIB) before being adopted by the Department of Transport and Regions (DETR). The development led to the spider’s web / radar chart that continues to be used since the official launch of the KPI toolkit in November 1999. One recommendation of the MCSG’s 2003 report (Achieving Construction Innovation and Excellence in Scotland) was that their should be a system to monitor and measure the progress of the industry (Scottish Enterprise, 2007). This reflected Egan’s tenet that ‘if you don’t measure then you can’t improve’ and the importance of raising industry productivity (by 30%) had of course been a recommendation in Latham’s 1994 Constructing the Team report.

In November 2005, the first set of Scottish Construction Industry Performance Indicators (pi’s) were launched and at this time it appeared that these were based on previous Scottish KPI’s previously submitted to the national initiative. Early feedback on the impact of pi’s from Scottish Enterprise Glasgow suggested that the “Scottish industry is more highly skilled, more productive and the safest in the UK,” (Young, 2007). However, with regards to the overall UK KPI performance, Constructing Excellence (2008) concluded that although the trends across three-quarters of the KPI have shown improvement over the past ten years, it appears that the rate of improvement has slowed in recent years. Moreover, potential for confusion exists and it is unclear if Scottish pi’s now form part of the UK annual assessment albeit the CE KPIzone notes that performance data is collected from across the UK construction sector by the Department for Buiness Enterprise and Regulatory Reform (BERR), a UK wide government department. The Scottish pi’s also appear to employ a different marketing approach to encourage their use. Three distinct reporting levels Level 1 (Executive Summary) level 2 (Management Summary) level 3 (Sector management) forms a framework combining performance measures in KPI streams. The same KPI streams run through each reporting level of the Framework and these streams (product, service, quality, cost, time, safety, environment, people and business) link the Framework together.

DEMONSTRATION PROJECTS

Responsibility for demonstration projects has evolved from ownership by Rethinking Construction / M4i / Housing Forum (1998-2002) through to the Scottish Construction Forum (2002-2007) and now resides with the Scottish Construction Centre. During the inaugural year of the SCF it was envisaged that ‘six quality Scottish Demonstration Projects’ could be promoted each year as exemplars to the wider industry (SCF, 2005). However, Scottish constructors have been slower to react and this reflects the findings of Constructing Excellence (2003) who reported that, as of 2003, the 374 Demonstration Projects registered in the UK included only 13 were from Scotland. Details of these projects (e.g. Rethinking Construction Case History No. 142, Asda Store Robroyston) remain available on the Constructing Excellence (2009b, 2009c) website. As of 2008, 5 Scottish demonstration projects have been completed under
the SCF banner (Ballater Housing, Glencorse Barracks, Tay Road Bridge Girder Box Strengthening, RAF Kinloss Nimrod MRA 4, Ardler Infrastructure and Housing) with a further 8 projects (New BBC Scotland Headquarters, Moray Flood Alleviation, Great Glen House (SNH), Glasgow City Council Primary Schools, Dynamic Breathing Walls, Anti-damp Nozzle Nubs, DPC Consortium Gigha, Dundee Sun City House) listed as current and residing under the SCC (2008b) and listed as current. However, it is difficult to follow the overall evolution of demonstration projects in Scotland due to their transition through three bodies (CE, SCF, and SCC) and this is compounded by webpages for all three organisations featuring case studies. The SCC could resolve this issue by featuring a definitive knowledge bank of all demonstration projects undertaken in Scotland since 1998.

CONSTRUCTION EXCELLENCE IN SCOTLAND

The potential for confusion and blurring of objectives previously noted (Adamson and Pollington, 2006) is apparent when the CE WebPages are visited to check on Scottish involvement. Twenty three Demonstration Projects are listed and as of May 2008 a South East and Central Scotland regional CE club was in existence noting that ‘for the next year we will be working closely with the newly formed Scottish Construction Centre, Forth Construction, Scottish Enterprise and CE’. The club clearly recognises the opportunities from UK exposure afforded by their CE membership and it could be envisaged that despite cooperation with the SCC, a Glasgow-Edinburgh rivalry lurks in the background. The CE website describe the SCC as ‘not being formally part of their organisation but with similar objectives and is a valuable source of related best practice information’.

CROSS-PARTY GROUP (CONSTRUCTION)

In 2003, a Cross Party Group for Construction in the Scottish Parliament (CPG) was established to provide a forum where the industry can interact with MSPs on matters of joint interest. The aim of the group is to ensure that Scotland has a world-class construction industry delivering best value for its clients, a safe environment on its sites and a proper career path and employment prospects for its people. Around thirty organisations are listed as members of the CPG including professional institutes such as the ICE, CIOB, educational and employer organisations and trade union representation through UCATT. However, it is somewhat surprising not to see the Health and Safety Executive (HSE) listed as members given the dominance of health and safety to the industry. Ministerial responsibility for ‘part’ of the construction industry in Scotland is lodged with Jim Mather MSP, Minister for Enterprise, Energy and Tourism and previously with Allan Wilson, Deputy Minister for Enterprise and Lifelong Learning. Both of these MSP’s have delivered presentations at SCF annual conferences. However, Scotland does not have a dedicated Minister for construction and those wishing to lobby government must seek consultation with various other MSP’s (Stewart Stevenson MSP, Minister for Transport, Infrastructure and Climate Change; Fiona Hyslop, Cabinet Secretary for Education and Lifelong Learning and Alex Neil, Minister for Housing and Communities). Moreover, despite an apparent transparency in assembling a ‘cross-party’ group, developing collegiality in the task of improving Scotland’s construction industry and mitigating the impacts of the current recession has inevitably succumbed to Machiavellian politicking. Indeed, Levack, (2009) chief executive of the Scottish Building Federation, warns the MSP’s to adopt a more cohesive approach to construction industry affairs. With particular
reference to recent job losses and associated risk to apprenticeship training he argued that ‘few will forgive politicians who put politics ahead of jobs.’

CONCLUSION

The emergence of an organisation which is equipped to provide advice on strategic issues to the Scottish Government and which promotes better performance in the wider Scottish Construction sector has been hard won. The resultant organisation, the Scottish Construction Centre has emerged from a number of bruising political battles. Sometimes these have been conducted across the borders between Scotland and England whereas others have involved internecine feuds between emergent groups within Scotland which have sought to capture the ear of Government. The most prominent of these has been the Scottish Construction Industry Group a pan-industry organisation involving clients, contractors and sub-contractors. Yet, this industrially strong organisation still became the attraction of funding which was available only if the models, practices and framework of the UK wide (but where Scottish interests were under represented) Constructing Excellence were followed.

The availability of the Scottish Executive funding started as a scramble for politicking to form consortia which would prove to be best able to present a credible bid to the Scottish Government. Here, East/West animosities were apparent, perhaps most strongly in the University sector, currently always energised if money was the prize.

Within the industry sector, the withering of the Scottish Construction Forum appeared to be welcomed. After all it had been founded by an appointee who had few connections within the industry and whose main credentials were closeness to the Scottish Executive and an ability to be a ‘quango-hand in that several other diplomatic missions had been undertaken. The late appearance of the largely London centred CIRIA in to the Scottish scene was looked upon by many as a ‘carpet-bagging’ operation.

Whatever has happened, here we are. Scotland has an SCC which is delivering strategic advice and organising improvement events, largely through the Centre for the Built Environment at Glasgow Caledonian University and which is funded with two tranches of European money and local performance improvement clubs are in place. These are achievements. However, ‘change’ cannot be institutionalised. Its primary agent is at the level of the firm, the project and of the individual. As Burley (2003) noted in an address to a ‘Gathering of the Clans’:

Many in this room and outside may be looking and waiting for the Forum, the Centre, Scottish Enterprise, the Scottish Executive, Communities Scotland, SCIG, or whoever to do something that will make things different. My message is that with the right will to make a difference it is project teams coming together with a common goal that will really make a difference to this industry and if it has not already started with you it can start today. But more than anything it is YOU that must be the change you wish to see in the world.

The fruits of this challenge have yet to be fully recognised in Scotland but (please do not quote the authors on this in the future) those long awaited and much talked of ‘green shoots’ may be detected.

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