

## Introduction

The purpose of SIG 1 was to review the procure-to-pay process within the Irish construction industry looking primarily to see if there were ways in which the process could be re-engineered to make it more efficient.

From the outset, it was clear that information technology could have a major impact in streamlining the construction supply chain, just as it has done in many other industries such as automotive and retailing. The members of the SIG 1 agreed to undertake a number of pilot projects to assess the technology available, and to establish the benefits that it could bring.

The pilot projects involved the following participants:

### Ascon

Major Irish Building Contractor that agreed to be the subject for the pilot process and whose efforts must be commended as they have helped to move the industry forward.

### Kilsaran

A concrete supplier who participated in the first phase of the pilot to assess the effectiveness of handheld technology for recording deliveries.

### PVF Burdens

A supplier of civil engineering products who participated in the second phase in which a full electronic supply chain process was undertaken.

### COINS

Back-office provider for Ascon and their COINS etc hub was used to route electronic messages between supplier and contractor.

### Sentrio

The handheld application technology partner whose solution was used to confirm deliveries, capture signatures electronically and to transmit the proof of delivery to both the supplier and contractor.

## Objectives of the Pilot

The pilot was split into two phases:

### Phase 1:

Objective: To investigate whether a single element of the supply chain process, ie: recording deliveries on-site, could be improved using handheld technology.

### Results:

The results of this phase proved that the solution was feasible, and demonstrated that Phase 2 was feasible. SIG 1 then progressed to a second stage

## Phase 2:

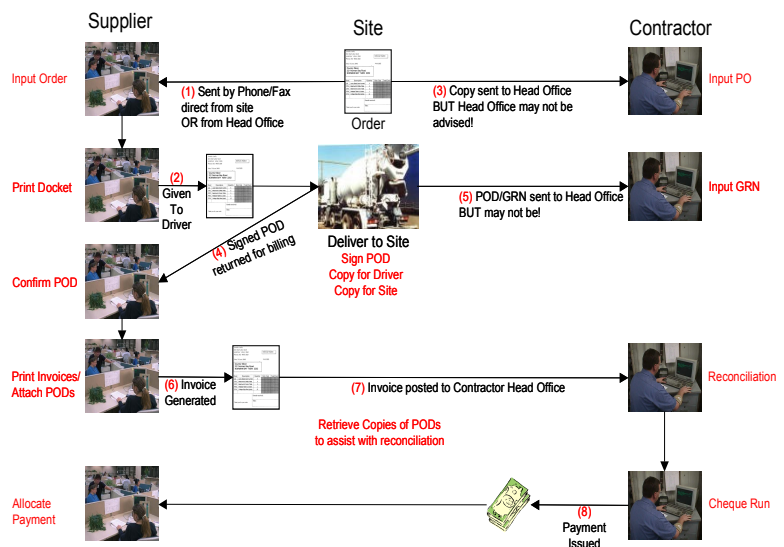
The key objective of the second phase of the pilot was to review the entire supply chain which included:

1. Documenting the current trading procedures within a typical building contractor.
2. Identifying any inefficiencies that may exist in the trading procedures.
3. Establishing and documenting how technology could be used to address any identified inefficiencies.
4. Using the technology in a live environment to prove that the benefits identified could be achieved.
5. Measuring the benefits during the pilot process.

While each of the participating companies focused on delivering the pilot, Alan Hore from CITA provided independent analysis and reporting on the outcome of the pilot.

## Typical Construction Supply Chain Process

The typical process used by the construction industry is as follows:



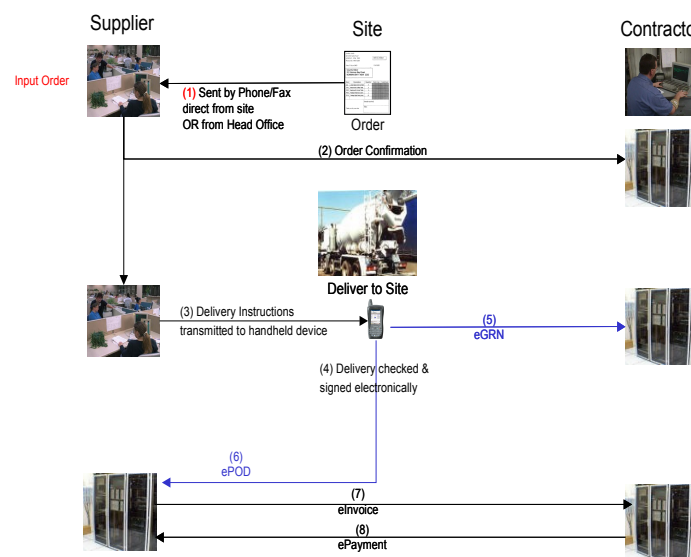
As can be seen from the diagram overleaf, paper is handled at many times in the procure to payment process. Every stage at which paper is handled there is the potential to introduce errors quite apart from the work involved to process it. The inefficiencies identified included:

- Overhead associated with processing paper, both on site and in head office.
- Out of date or incorrect pricing information used.
- Missing paperwork – the industry has a serious problem in this regard with anything from 5% to 25% of delivery dockets simply going missing with the average being somewhere in the region of 12%.
- Discrepancies between information recorded by the supplier and the contractor.

## Pilot Supply Chain Process

The pilot utilised available technologies to make subtle but radical changes that would improve the supply chain process. Sites could continue to order as normal from the supplier, but the process was completely electronic from that point on, with the exception of the payment process which fell outside the scope of the pilot.

The data input by the supplier at order entry provides the basis for all subsequent exchanges of information. The contractor verifies this and the pilot proved a 100% three-way-match of information, i.e. the order matched the delivery, which matched the invoice.



## Success of the Pilot

The pilot achieved all of its objectives and thus was very successful in proving that technology can make significant efficiencies in the supply chain process. The technology worked without reducing any of the controls within the overall process. In fact, the pilot identified that there were significant increases in control that could be achieved. In addition, much of the labour intensive work including keying in and checking data was eliminated. In fact, savings of up to 75% of administrative effort were identified using time and motion analysis to compare the typical supply chain process with the electronic one used in the pilot.

A key measure of success from the pilot is that the contractor and supplier want to move to the next stage of fully implementing a comprehensive solution within their respective businesses.

## Lessons Learned

There were a number of key findings from the pilot:

1. XML standards need to be agreed for all message types required in the supply chain process to allow suppliers and contractors to electronically exchange information easily between trading partners.
2. Building Contractors need to deploy a handheld solution on their sites to record the receipt of deliveries in order for them to gain the maximum benefit from an electronic supply chain process.
3. Electronic catalogues need to be kept up to date to ensure that pricing information is accurate.
4. The deployment of any solution such as this requires commitment and support from senior management to want to optimise efficiencies within their businesses.

## Next Steps

SIG 1 has proven that information technology can improve the supply chain process in the construction industry.

CITA is moving forward to define and agree the XML standards to be adopted by the industry for exchanging information between suppliers and contractors. A committee has been formed for this purpose, but new members are always welcome. For further information on how to join this committee, contact:

**Finbarr McCarthy of Sentrio on 087 2441851** or

Sentrio

**Alan Hore of CITA on 086 386735**

