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## CASE STUDY: LOGISTICSXP DISTRIBUTION COLLABORATION

### Abstract

*LOGISTICSXP, the Logistics Exchange Programme, is the brand name for a pilot collaborative initiative, supported by InterTradelreland, primarily between retail suppliers within the logistics part of the food and drinks industry supply chain. Information on existing loads, warehousing and distribution flows together with ambient, time and other requirements are pooled anonymously and matched via the Translogistica PreFlex eRFC™ system. The result is a set of potential logistics sharing opportunities, and range of “what-if” scenarios. The central independent project management and facilitation of evaluating and translating these common supply chain opportunities into reality via a broad collaboration group is highlighted as an essential component of long term success. A new three year pilot scheme directed at SMEs and other industry sectors is described.*

### Case study fact sheet

■ Full name of the company:	Barbara Anderson Consulting
■ Location (HQ / main branches):	Waringstown, Northern Ireland
■ Sector (main business activity):	Supply chain consulting
■ Year of foundation:	2000
■ No. of employees:	6 (Network of associates)
■ Turnover in last financial year:	Not disclosed
■ Primary customers:	Food & Drink retailers
■ Most significant market area:	Island of Ireland, United Kingdom, Continental Europe. Plans for the Far East
■ Focus of case study	Process & system
■ Key words:	Logistics

### Background and objectives

This case study outlines the origin and the results of a collaborative programme on distribution logistics conducted in 2005.

This initiative followed an integrated study on “Supply chain logistics and transportation on the island of Ireland” commissioned by InterTradelreland<sup>1</sup> and conducted jointly with

<sup>1</sup> InterTradelreland, the Trade and Business Development Body, is one of the six cross-border bodies established under the Belfast Agreement, 1999. InterTradelreland's mission is to

the Joint Business Council of the Irish Business and Employers Confederation (IBEC) and the Confederation of British Industry (CBI). Distribution in and out of Ireland is less cost effective due to- many drops, poor load fill, less-developed supply chain infrastructure than in other European countries. One of the key recommendations in this report was: *'Supply chain management encourages the sharing of information and development of partnerships between organisations for the mutual benefit of all. InterTradelreland should encourage appropriate government bodies, trade associations etc., to act as 'honest brokers' in encouraging the development of collaborative efforts between companies in all areas of the supply chain'*

Since the publication of the joint report, InterTradelreland has developed a Supply Chain Strategy focussed on the promotion of supply chain awareness and development of best practice to achieve competitive advantage. The LOGISTICSXP Distribution Collaboration Pilot, one of the key initiatives, was launched in January 2005 with eight participating companies. Their participation was partly funded by InterTradelreland. The intent was to demonstrate where opportunities exist for collaboration between participating companies in both Northern Ireland and Republic of Ireland in relation to reducing distribution and supply chain costs, while simultaneously increasing value for the respective participants.

## **e-Business activity**

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The starting point for the project participants was to explore the potential opportunities for collaboration outbound to customers and inbound from suppliers located on the Island of Ireland and in England, Scotland, and Wales. Companies that participated in the pilot study included, amongst others:

- Henderson Group, owners of the SPAR, VG and VIVO franchises in Northern Ireland, which distributes food and grocery related products to the convenience retail sector. Henderson Wholesale offers over 4,500 ambient lines, 1,100 fresh food lines and 500 frozen food lines to the retailer
- Irwin's, Northern Ireland's largest independent bakery, with an extensive distribution resource which supplies a wide range of fresh traditional Irish breads daily to supermarkets throughout the UK and Ireland
- Moy Park Ltd, Northern Ireland's largest food processing company and one of Europe's leading poultry companies which supplies chicken products to retailers throughout UK, Ireland and Europe. It is part of the OSI Group.
- H. J. Heinz, the global food company
- Royal Numico, a specialised nutrition company, whose brand names include Nutricia, Cow & Gate, Milupa, Mellin, Dumex, SGM, Nutrison, Neocate and Forticare
- Argos, owned by GUS plc, and part of the Argos retail group. It is the UK's leading general merchandise retailer.

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enhance the global competitiveness of the all-island economy to the mutual benefit of Ireland and Northern Ireland through measures such as the creation of knowledge-intensive all-island trade and business development networks and the implementation of all-island trade and business development programmes. See [www.intertradeireland.com](http://www.intertradeireland.com)

## Methodology

The project led by Barbara Anderson Consulting, supported by ELUPEG<sup>2</sup> (European Logistics Users, Provider and Enablers Group) and Translogistica commenced with a Phase I high level “Business Profiling” to determine the networks and infrastructure of the participants to ensure that the project had sufficient ‘reach’ to achieve the anticipated benefits from collaboration. Evaluation continued in Phase II “Detailed Data Gathering” with the comprehensive collection of organisational data including: outbound & inbound customer demographics, transport temperature regimes and supplier demographics. Phase III “Data Matching” collated and compared information about individual outbound and inbound raw materials and finished goods movements for each participant. “What if” scenarios were also calculated. In Phase IV the potential for collaborative deliveries to customers within similar / same geographic regions was identified, including potential backhaul opportunities and consolidation of warehousing among partners.

## Supporting Technology

The ‘Data Matching’ engine that sits behind this process of seeking out collaborative partners and opportunities, is PreFlex eRFC™ (Request For Collaboration) provided by Translogistica (<http://www.translogistica.com/>). This collaboration tool enables companies to safely, anonymously and easily understand the scale of the opportunity, and perform what-if analysis of the impact of moving distribution centres.

The individual inbound and outbound raw material and finished goods movements for each participant were collated and entered into the system along with most of the detail necessary for potential collaborative matching (e.g. temperature regime, volumes, number of trucks, frequency). PreFlex eRFC™ then produced a series of reports indicating full and less than full truckload (FTL/LTL) outbound load-sharing and backhaul potential matches based on permutations of origin and destination (portions of post code and city).

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<sup>2</sup> See [www.elupeg.com](http://www.elupeg.com)

## Exhibit 1: Translogistica Preflex eRFC™

Matching Backhaul flows  
Match My Origin to Their Destination on City and My Destination to Their Origin on Post Code (3 characters).  
Total 2 matches found 19-May-2005

RFC ID: 5082...

My Lane	Origin City PostCode, Country	Destination City PostCode, Country	My Loads (Format)*	Their Loads (Format)*	% Match	My temp (their temp)	Their Lane	Origin City PostCode, Country	Destination City PostCode, Country
15061	Chepstow NP16 6UD, GBR	Craigavon BT6 5QE, GBR	52 (26)	360 (6)	692%	Ambient (ambient)	18155	Portadown BT6 3 2WE, GBR	Chepstow, GBR
15062	Didcot OX11 7HR, GBR	Craigavon BT6 5QE, GBR	12 (26)	360 (6)	3000%	Ambient (ambient)	18156	Portadown BT6 3 2WE, GBR	Didcot, GBR

My Matched Lanes: 2 (Comprising 64 loads) Potential collaborative partners: *Confidential*

Format Key	Format
1	LTL up to 1 pallet
6	LTL up to 1/4 load
12	LTL 1/4 - 1/2 load
18	LTL 1/2 - 3/4 load
24	LTL > 3/4 load (some available space)
26	FTL carrier (no available space)

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Source: Barbara Anderson Consulting (2006) ©Translogistica Ltd

## Impact

Based on the results of the analysis some companies have collaborated independently without need for any further involvement by the LOGISTICSXP programme. However, in general, it was necessary to have an independent trusted broker conduct an arms length process to facilitate follow up action. Even then, specific clear opportunities have not been acted on for various reasons. These include simple lack of resources and an inability to commit to collaboration due to other ongoing work and commitments in the supply chain, as well as perceived strategic differences.

### Collaborative Opportunities Identified

Many participants are currently delivering to a customer base spread across the same geographic areas in Ireland and the UK; and receiving supplies from similar geographic areas. To optimise the cost of shipments, all participants aimed to achieve full loads delivered direct to customer distribution centres (DCs). However, all participants have similar issues in terms of providing a cost effective distribution service of less than full loads to *smaller customers*.

The suggestions from the analysis range from the potential of sharing backhaul capacity or volume to the innovative contemplating of mixing products across temperature regimes and industry sectors to enable vehicle sharing e.g. running trucks with the refrigeration unit powered down, using branded general merchandise trucks to transport fresh bakery products from a different company. Specific areas for collaboration include:

- Collaboration on combined deliveries to customers within similar / same geographic regions;

- 'Backhaul' opportunities from suppliers. Many supplies are purchased at 'delivered cost' - thus there exists a huge potential to collaborate on balancing 'Inbound and Outbound' between some project participants and also with other companies, possibly yet to be identified;
- Consolidation of warehousing among participants.

### **Potential Commercial Benefits Identified**

The potential cost reductions identified by the Pilot project participants, and confirmed by an independent auditing firm, ranged from €65,000 to £375,000 at a company level. In percentage terms these cost reductions range between 5 - 20%. The total estimated value of the potential cost reduction benefits exceeds a million euro – taking into account projects which will have an additional cost in order to enable collaboration which in turn will generate 'Revenue' for one partner and deliver 'Cost reduction' for the other partner. It was anticipated that this number would increase with implementation of the collaborative opportunities. This was expected to require a further 6–18 months.

In addition to the potential cost reduction benefits, many of the companies had identified revenue-generating opportunities from participating in the Collaboration project. The value of these opportunities was estimated to be in the region of € 750,000. The participants also identified further 'competitive advantages' to be gained through enhanced customer service.

In general terms the potential benefits arising from the proposed collaborations, if and when implemented, would result in:

- Fewer deliveries / increased vehicle utilisation
- Enhanced customer service
- Reduced distribution costs (inbound and outbound)
- Better utilisation of warehousing resources

### **Lessons learned**

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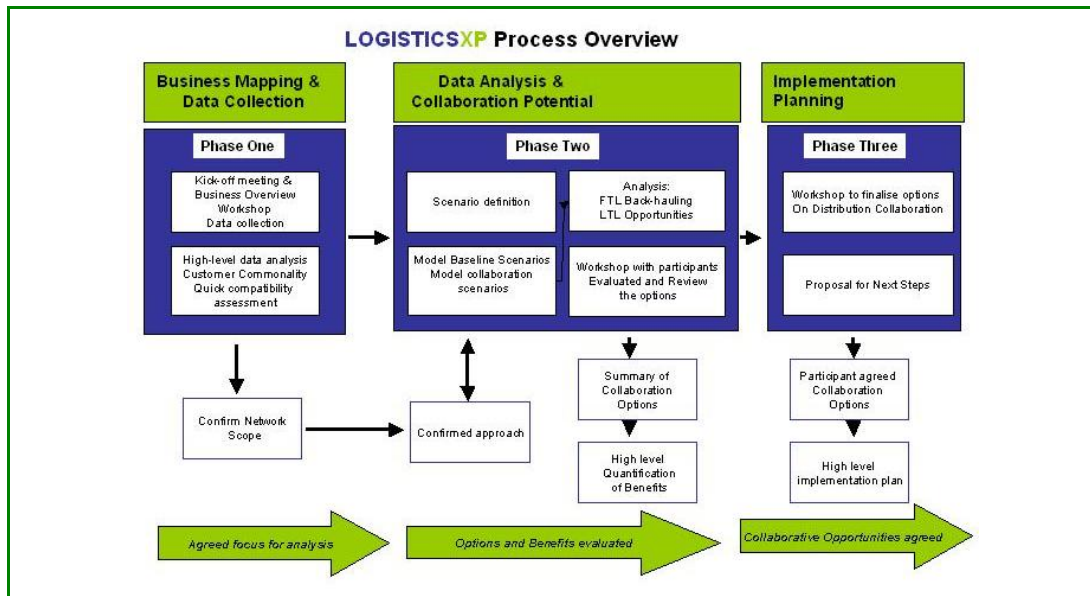
This type of collaboration has a huge potential to reduce costs for participants and position Logistics Service Providers (LSPs) as strategic partners for all. An important practical consideration highlighted by Barbara Anderson is that *"participants must not seek to maximise their individual potential gains; this is a network which will only grow and be successful when the benefits are shared equitably"*.

In effect, the pilot must encourage the sharing of supply chain management information and development of partnerships between organisations for their mutual benefit. To this end, data provided by the participants remain anonymous (or confidential) at all times until and after respective participants agree to share this information. Notwithstanding this anonymity requirement, all participants must have direct access to their own data (via the broker). Participants would also have access to the available information on the collaboration opportunities identified and be able to seek further opportunities as more companies join the group.

### **LOGISTICSXP Process Overview**

Based on the experience in the pilot, a revised process developed by Barbara Anderson Consulting is shown in Exhibit 2. This is used in other initiatives as well and is also intended to be used in the follow-on InterTradelreland project aimed at SMEs.

**Exhibit 2: LOGISTICSXP Process Overview**



Source: Barbara Anderson Consulting (©2006)

### Follow-on pilot project

As a result of the success of the initial pilot programme aimed at large companies, InterTradelreland has decided to run a second pilot initiative (2006-2009), this time aimed at providing direct support for 12 selected SMEs (all sectors eligible) in the first year. Enterprise Ireland has also agreed to support 12 companies according to the same conditions. This phase will continue to have a specific food in focus as the “Fit for Market” Project Team (DARD and INVESTNI) Food Strategy Implementation Partnership (FSIP) have committed to support an additional 12 SMEs per annum from this sector in Northern Ireland. In order to ensure that the collaboration base is relatively compatible and thereby maximise the potential for collaboration it is likely that several of the other 24 companies selected will also be from the agriculture / food sector. Depending on the outcome of each preceding year, it is envisaged that the project will continue subject to the same conditions for each of the following two years (2006-2009).

### Conclusions

Barbara Anderson highlighted the value derived from the successful pilot programme and its wider potential: *“Cross-fertilization between participants and other industries is an essential part of this process. All companies, regardless of size and industry sector, can increase their customer value by participating in the LOGISTICSXP Programme and by acting on the opportunities identified. Company participants have access to a full distribution diagnostic, the opportunity to collaborate with other project partners, and professional brokered assistance to help ensure that opportunities are fully explored and consolidated”*. She welcomed the continued role and contribution of InterTradelreland, Enterprise Ireland and FSIP/Northern Ireland to continue the pilot in favour of assisting SMEs (up to 250 employees).

## References

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*Research for this case study was conducted by Henry J. F. Ryan, Lios Geal Consultants, on behalf of the e-Business W@tch.*

*Sources and references:*

- *Interviews with Ms. Barbara Anderson in May and July 2006.*
  - *Desk based literature research, and information available from the InterTradeIreland website [www.intertradeireland.com](http://www.intertradeireland.com); including the report "Supply chain logistics and transportation on the island of Ireland: an integrated study" (22 January, 2002) and the "LogisticsXP Brochure" (28 March 2006).*
  - *Translogistica website, <http://www.translogistica.com/>*
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