Improving supply chain transparency

"VISIBILITY AND THE critical need for accurate and timely data from the right source at the right time are continually identified by public and private sector organizations to be the most important elements in terms of compliance, fiscal efficiency, safety, security and integrity," said David Hesketh, Senior Business Manager at HM Revenue and Customs (HMRC) in the United Kingdom (UK), during the gathering on 5 March 2013 of key UK trade stakeholders attending the Transparent and Secure Trade Seminar, hosted by IBM at its Southbank offices in London.

The Seminar focused on the voluntary sharing of information across the supply chain, the benefits and the barriers thereof and how a sustainable business model might be created to realise this vision. Sharing information has two dimensions: sharing among businesses in the supply chain (B2B) and sharing between businesses and government agencies involved in international trade (B2G). Voluntary sharing of information, particularly from a B2G perspective, entails sharing more information than is required by law.

Three stakeholder groups were represented at the Seminar: organizations involved in importing/exporting goods (Siemens and the RSA Group); organizations involved in moving goods (BAP Logistics, MCP and DHL); and government agencies involved in international trade (HMRC, the UK Department for Environment, Food and Rural Affairs or Defra and the Suffolk Coastal Port Health Authority).

"UK Customs have worked for some time with IBM and other commercial partners within the Cassandra Project and in the Strategic Advisory Group on Europe (SAGE). This Seminar continues to demonstrate the value of regulatory authorities such as Customs, Health and Forestry working together with businesses to increase our understanding of international trade and the supply chain and to recognise the valuable roles we all play both individually but, more importantly, collectively," Hesketh stressed.

Brainstorming

The stage was set by introducing a vision of businesses sharing their supply chain information with other supply chain partners, including government agencies that are also seen as supply chain partners. The experiences of the European Union and the United States added further insight to the ensuing discussions.

With the scene set, delegates took off their jackets, rolled up their sleeves and started brainstorming. Ideas were developed in three groups (buying/selling goods, moving goods and regulation/government) using the Business Model Innovation method of Alexander Osterwalder (www.businessmodelalchemist.com), an innovation-stimulating means to understand, describe, design, challenge and invent business models.

Osterwalder's Business Model Canvas and Value Proposition Canvas were used to capture ideas on a TO-BE situation, where the supply chain transparency vision is implemented. After completion of each canvas by each stakeholder group, the groups reconvened in plenary sessions, where they examined the value of collaboration between the eco-system partners and challenged how this value was represented in canvases or other groups.

Key results
Identified problem areas:
- Unpredictability in operations.
- Difficulty in creating end-to-end insights using information from distributed and unrelated sources.
- Lack of standardization in government declarations/documents (Customs declarations, for example) globally and nationally. Parties spend a great deal of effort on data conversions and formatting to fit the requirements of all parties.

Agreed solution guidelines:
- A supply chain transparency solution would give parties across the supply chain access to supply chain data (from seller to buyer), on the basis of authorized access. Such a solution would be possible because the majority of companies can and wish to act in a socially responsible manner, and wish to help government do its job better for the benefit of all stakeholders. The identification of which data elements will be shared is a "to do" item but not an inhibitor or problem area.
- Predictability of operations for participating actors. For example, government could provide improved predictability for its interventions thanks to the improved data quality, more predictable Customs regimes, and maybe the ability to clear goods before they arrive at the terminal.

Suggested eco-system business model:
- Government will be offered trade (supply chain) data voluntarily, in addition to data that is provided based on legal requirements. This includes data about the business transaction between buyer and seller (to be received from the buyer/seller) as well as logistics data (to be received from parties involved in moving the goods).
- A commercial party offers new information services for making the right information available at the right time and right format for all interested parties.

Moving goods
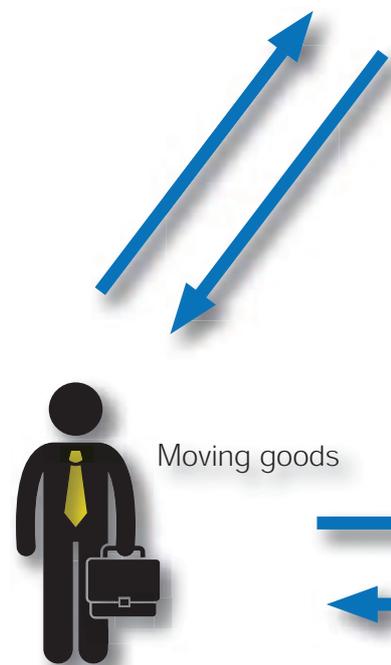
Identified challenges in implementing a solution:

- Mobilizing companies to move forward and act as pioneers in implementing supply chain transparency solutions that they share with government, without a legal obligation to do so.
- Implementation costs and who would bear them requires a flexible approach for realizing progress. For example, communities of private sector organizations took an active role in developing an IT solution which would improve their own operations, although they had no obligation to do so. Most favoured would therefore be a business model where the government coordinates a private sector initiative to develop an IT implementation solution for supply chain transparency ("a supply chain data hub") nationwide.
- Data privacy and security is an important area, yet not as a problem area, because there is sufficient convincing experience that good solutions exist to handle these concerns.

Conclusion

The various stakeholder groups have very similar needs and very similar ideas of how the future should be shaped, and there was broad agreement that the main challenges for realising the vision are organizational (mobilising stakeholders, agreeing on roles, responsibilities and procedure simplifications) and not technological.

This positive conclusion provides a fertile ground for further development of the vision laid down in the Seminar. While participants were UK-based, the issues that all stakeholders face are generic to their industries and hence discussion can be seen as representative for other markets as well.

"Quality data leads to improved risk assessment and decision making which has clear benefits to everyone concerned in carrying out and facilitating legitimate trade and helping to squeeze out and deal with errors and illegitimate trade. This Seminar proves the value of working together to identify and work towards solving areas of concern to us all through research and development," concluded Hesketh.
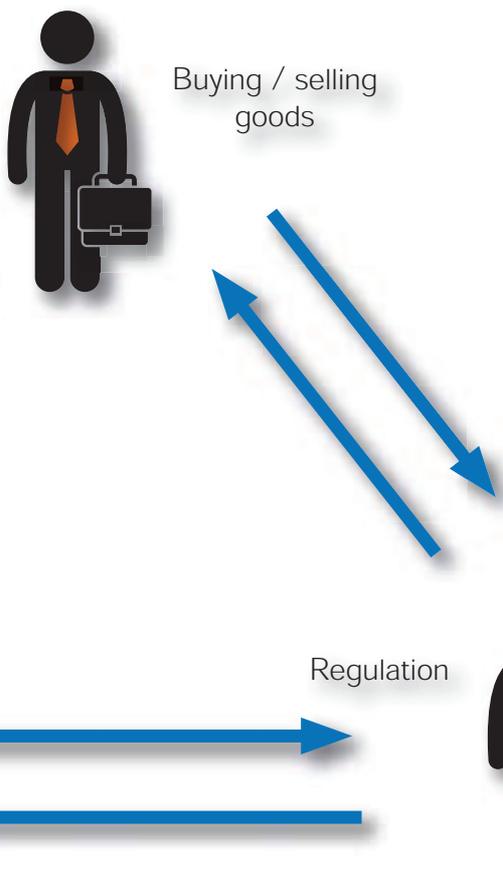
More information

IBM's vision on supply chain transparency

Buying / selling goods

Regulation

The traditional Authorised Economic Operator (AEO) model assumes a binary relationship between a company (trader) and government (Customs): a trader provides transparency of its operations to Customs, and in return Customs provides trade simplifications.

The IBM vision on supply chain transparency proposes to supplement this binary approach with a scheme where the various parties (buying/selling goods, moving goods and government) each receive something of value from another party but not necessarily from the same party to whom they contribute.

While the AEO scheme focuses on the transparency of a company's operations in general, supply chain transparency in IBM's vision foresees a fully transparent environment that enables Customs to access information on all a company's transactions in real time, as opposed to Customs declarations that are submitted at a specific moment in the supply chain.

The ability of Customs to monitor all transactions in real time enables administrations to decide not to check transactions at all or to do so on an ad hoc, random or periodic basis, or upon receipt of risk and intelligence information and to move from transaction-based (i.e. declaration-based) processing of an AEOs import/export transactions to an account-based clearance system.

The underlying IT solution is an information sharing infrastructure, some kind of a virtual "pipeline" of supply chain data, into which authorized actors (businesses and government) can tap.