

THE TRACEABILITY OF LOCATION AS A KEY ASPECT OF PRODUCTS CONFIRMATION

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The traceability is the capacity to identify and track a foodstuff, a forage for animals, an animal or a substance intended or expected to be incorporated into a food or a forage, at all levels of production, processing and distribution. In accordance with this definition, traceability is a process that covers the entire supply chain and in which different companies collaborate to optimize the interfaces determined of various directions, domains and sub-processes. Therefore, in our opinion, this is the way to meet consumer expectations in terms of safety and quality of products. The current food safety policy is based on a number of principles which applied in accordance with the integrated approach „from farm to fork”, specifically include transparency, risk analysis and prevention, protection of consumer interests and the free circulation of safe and quality products in the internal market and in relation with other states. Food safety is, for the most part, subject to the environment state and resources: biodiversity; level of pollution; water, soil, resources; climate changes; human factors and globalization.

The traceability and quality of meat and meat products are requirements for domestic and European market, which require, in turn, an adequate infrastructure, equipments and service network [1]. The IOAS is a non-profit organisation dedicated to the integrity of ecolabel claims in the field of organic and sustainable agriculture, environmental management, social justice and fair trade. It works internationally to assess the competence of organizations providing certification to ‘sustainability’ standards such that producers can work in a fair environment and consumers can trust the products bearing these labels; our contribution to a more sustainable and fairer world. GB/T19630-2011 Standard for Organic Products is applicable for all organic products for sale in Chinese market, including domestic and imported products. The products can be sold legally as organic products in Chinese market only with certification of such standard. The standard consists of four parts, which respectively specified the requirements in the field of organic production, processing, marking, selling and management system. Beijing Wu Yue Hua Xia Management & Technique Center (hereafter referred to as “CHC”) is one of the earliest established organic food certification body in China, and it has been approved by Certification and Accreditation Administration of the People’s Republic of China (CNCA, Ref NO: CNCA-R-2004-129), and is also accredited by China National Accreditation Service For Conformity Assessment (CNAS, Ref NO: CNAS C133-O). It is

the member of China Certification & Accreditation Association (CCAA) and IFOAM. CHC is also the executive director member of China Chamber of International Commerce (CCOIC). Chen ZHAO, the director of CHC, is the executive chairman of Organic Industry Development Committee of CCOIC as well. Certification fields of CHC are Chinese organic product certification, Korean organic product certification, GAP certification, ISO22000 certification, HACCP certification. If a buyer wants to discover and control his whole supply chain, it will always be difficult in China. First, let’s say he wants to know the factory that takes care of final assembly. This is not as obvious as it sounds. Suppliers are not producers, and many producers sub-contract the manufacturing in the purchasers’ back.

Traceability dates back to as early as the 1930s when some European countries wanted to prove the origin of high-quality food such as French champagne. Over the past two decades, food safety related issues and various food scandals in the agribusiness sector, such as mad cow disease or the Asian bird influenza, have highlighted the importance of traceability. The need for traceability has also extended to other industries, due to issues of product quality, safety and security. In 2005, the European Commission implemented several directives and regulations on food safety, which increased the focus on traceability in agricultural commodities. These food law guidelines address “traceability of food and feed products, responsibility of operators, withdrawal of unsafe food or feed from the market and notification to the competent Authorities”.

Beyond food safety, consumers, NGOs, governments, suppliers and buyers increasingly demand more information about the origins of their products and materials and the conditions under which they were produced and transported along the value chain. With the increase in demand for organic, fair trade and environmentally friendly products and materials, well-functioning traceability systems and new technologies have been developed to meet stakeholder needs.

Traceability is becoming more of an accepted practice, and one that companies increasingly embrace as part of their sustainability activities. The Forest Stewardship Council describes FSC certification as a “license to trade” for businesses. The most successful traceability schemes are multi-stakeholder, involving business, government, and other stakeholders and civil society organizations who have an interest in the sustainability of the said commodity [2].

Multi-stakeholder initiatives are complex and require careful governance to manage often very divergent points of view. Traceability schemes are proving able to bring – and keep – these players together. The focused purpose of making a specific commodity more sustainable is a powerful and uniting force for the participating companies and stakeholders.

The three models are Product Segregation, Mass Balance, and Book and Claim (see image below). They are differentiated by the extent to which certified and non-certified materials are permitted to mix, as well as by claims that can be attached to the final product.

Models with less stringent controls around the handling of certified and non-certified materials are less complex and thus less expensive. However, wherever possible, the type of certification and the model of traceability used should depend on the sustainability claims and the materials being traced rather than the cost of implementing the model. Product segregation is best suited and should be prioritized, when possible, if there is a risk of being involved in human rights or labor abuses when sourcing a certain commodity. The Mass Balance and Book and Claim models are open to criticism for commodities where Product Segregation is available.

As outlined in our steps above, companies should not feel pressured to participate in traceability schemes across every commodity they buy, but rather focus on those that are most material to the business based on assessments of sustainability risks and potential adverse impacts. It can be difficult to gain internal buy-in for developing a traceability programme, and it makes it much easier if the business case is clear, which relies largely on the level of risk and opportunity that a company has for leverage.

It is hoped that readers have enjoyed and gained value from the guide, and will be taking appropriate steps to engage with traceability in their companies and organizations. The stated objectives of the guide were to:

- provide an overview of the importance of traceability for sustainability purposes;
- highlight the global opportunities and challenges of traceability;

- outline practical steps of how to go about implementing traceability.

Companies that attempt traceability on their own will face immense hurdles and may actually impede the work being done on an industry level. This does not mean that companies must be willing to embrace and support collaborative initiatives, while mindful of their imperfections. However, the benefits outweigh the negatives: by getting involved in a global initiative, companies have a chance to shape and drive the initiative, and have the support of their peers and a trusted stakeholder as they develop their own related approaches.

The overwhelming consensus from the individuals interviewed for this guide is that traceability is here to stay, and will continue to increase in importance and impact. One of the most critical drivers of this trend is increased consumer demand to know more about the products they are buying – what is in them, where they come from, the conditions under which they were made, how they got to them, and even how they will be disposed of. Companies who invest in increased transparency, traceability and measurements of sustainability data along the value chain will have a competitive advantage in meeting this consumer demand.

It is possible to see a future where technology enables the full product and supply chain information that consumers expect, and traceability will be the norm. Tools already exist to enable people to use their smart phones to scan a barcode and learn more about a product from a sustainability perspective; it is easy to see this trend evolving as technology improves, and as the ability to collect, analyze and share data becomes easier and cheaper.

1. The importance of traceability in certification the quality of animal products. Iurchevici Lidia, 1 Chetroiu Rodica. Conference Paper. The importance of traceability in certification the quality of animal products. Version is available at: <http://hdl.handle.net/10419/111619>.
2. Fairtrade (2011), Windward Island Farmers' Association, <http://www.fairtrade.org.uk/producers/bananas/winfa>
3. A Guide to traceability. A Practical Approach to Advance Sustainability in Global Supply Chains. United Nations Global Compact.

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МЕТРОЛОГИЧЕСКОЕ СОПРОВОЖДЕНИЕ 3D-ТЕХНОЛОГИЙ В ПРЕДСКАЗАТЕЛЬНОМ МОДЕЛИРОВАНИИ ОБЪЕКТОВ

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В Республике Беларусь под эгидой немецкого концерна Siemens прошёл форум, посвящённый внедрению цифровой трансформации и использованию 3D-моделей в процессах разработки, производства и обслуживания объектов и систем

различной степени сложности [<http://siemens.by>]. На форуме обсуждались организационные аспекты реализации процессов и технологий для перехода к виртуальным испытаниям и предсказательному моделированию. Технологии