Executive summary
European and international food safety and quality standards: overview, costs (risks) and benefits

Deliverable Number	**D7.4 Report: Overview Analysis on Risks and Costs Related to European and International Food Safety and Quality Standards.**
Organisation name of lead contractor for this deliverable:	**University of Bonn**
Contact	**For further use, questions or queries please contact the dissemination manager:** **Daniel Spichtinger , M.A.** **RTD Services Lazarettgasse 3/4** **1090 Vienna, Austria** **Tel: +43 1 3231000 -21**

Content Summary

Recent years have seen a **tremendous increase in food safety and food quality standards**, both at national, European, and international levels. They **complement the public regulatory environment and have been introduced by a variety of parties, involving amongst others public authorities, standardization bodies, advisory services, industry groups, or retai**l. This list also identifies a direction of development. Initiated by standardization bodies and public authorities, the well-known standards or norms ISO9000 and HACCP were later complemented by industry-driven activities, and more recently by standards developed by the retail sector addressing its suppliers (as, e.g. BRC and IFS) and agricultural production (GlobalGAP). All of theses standards represent clusters of regulations as do the legal requirements on food safety control. The number of requirements integrated in these standards may be more than 200 individual specifications. However, these clusters partly overlap with each other or with other legal requirements. This may facilitate the incorporation of new standards above the ones already implemented but it also contributes to confusion on what needs to be done. The costs of implementing and maintaining a new standard might therefore vary within a broad range, depending on the actual food safety and quality situation an enterprise is in. The same is true for potential benefits one might expect from adherence to a new standard. In one extreme (total overlap of regulatory requirements) the costs of implementation might be restricted to participation in the certification scheme and benefits may result from having a certificate that might allow access to certain markets.

In this situation, **enterprises might need support** for decisions on which standards or combination of standards they should choose. This requires information on the marginal costs and benefits of introducing new standards or combinations of them. Similarly, policy makers might want to know what effects new requirements may have on enterprises and other stakeholders. This is the scenario that is dealt with in this report. The analysis of costs (risks) and benefits of implementing new standards or of fulfilling additional requirements on food safety and quality has to overcome **two difficulties**:

a) identification of the situation regarding food safety and quality that an enterprise is in - as a basis for the calculation of costs and benefits and

b) estimation of the marginal costs and benefits the enterprise is confronted with if it intends to fulfil additional requirements or the requirements clusters of an additional standard.

For overcoming these difficulties, the project team at University of Bonn has focused its attention on the **following activities**:

1. Determination of an overview on European and international quality systems.
2. Analysis of the regulatory requirements of all of these systems.
3. Identification of regulatory overlaps between different systems.
4. Identification of cost and benefit categories related to processes, products, enterprises, and markets.
5. Identification of linkages between regulatory requirements and the cost or benefit categories.
6. Development of a framework for the identification of marginal costs and benefits of regulatory requirements and certification schemes through expert evaluations.
7. Calculation of cost levels linked with the regulatory requirements.
8. Utilization of the framework for the identification of costs and benefits in case studies dealing with decisions on the integration of new standards or combination of standards into existing food safety and quality scenarios of enterprises.
9. Development of an internet based database that supports the utilization of the results and will be accessible at this stage for use within the project.

The framework for the identification of marginal costs distinguishes several levels (1- 10) of marginal costs, reaching from ‘low costs’ to ‘expensive’. The levels have been identified through empirical studies that dealt with:

a) analysis of implementation costs of quality systems through a survey among agribusiness firms and
b) various rounds of interviews with groups of experts utilizing the Analytical Hierarchy Process (AHP) for general judgements on the levels of costs and their relationships.

The results represent a **set of metadata that can be linked to concrete (average) monetary values for each level in different countries or scenario**s. The differentiation into 10 levels is considered an appropriate differentiation. Depending on expertise, a further differentiation of levels would be feasible. Apart from the case dependent benefit calculations, all results of items (1)-(8) above are captured in a database that can be accessed through the internet, and is being prepared for general access within and beyond the project. This database is considered an integral part of the document. It will be continuously developed during the course of the project. Stakeholder discussions have been initiated with positive feedback to assure continuation of the database beyond the duration of the EC-funding.

Together with the database, this document provides the ground for an enterprise focused cost-benefit calculation for decision support regarding developments towards improvements in food safety and quality. It builds on judgements that could, if available, be complemented or replaced by concrete values from necessary investments in equipment or training developed in other groups (e.g., science laboratories) within MoniQA.

The document involves a magnitude of information the creation of which was initiated before the start of MoniQA, and which will be improved and further developed during the course of

the project. It is the **most advanced database on private regulations presently available in Europe.** Improvements in food safety and quality can be linked directly to benefits of adherence to certain regulatory requirements. However, the identification of the benefits of certification schemes (e.g., access to certain markets) remain dependent on **individual judgements** and the scenario an enterprise is in.

About MoniQA – www.moniqa.org

MoniQA ("Monitoring and Quality Assurance in the Food Supply Chain") is a Network of Excellence (NoE) funded by the European Commission under the 6th Framework Programme. The Network aims to make food safer by harmonising methods for food analyses. The project is coordinated by the Vienna-based International Association for Cereal Science and Technology (ICC). More than 155 researchers and scientist from 33 international partners from 20 countries are involved in MoniQA.

Join us!

MoniQA offers associated partnerships for interested organisations, SMEs and institutions. For more information see the FAQ section on the MoniQA website (http://www.moniqa.org/index.php?id=90440&lang=default) or contact:

MoniQA Project Manager
Marcella Gross, ICC
marcella.gross@icc.or.at