IRM-Organic Report:

Analysis of training approaches and concepts in food and feed control and certification

AGRIZERT

In Cooperation with

AGRO BIO TEST   BIKO TIROL   ccpb   GfRS   SLK

Content

List of abbreviations

AGES	Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH (Austrian Agency for health and food security)
AkadVet:	Landesakademie Baden-Württemberg für Veterinär- und Lebensmittelwesen (Regional Academy Baden-Wuerttemberg for veterinary and food matters, Germany)
APOmD LK	Verordnung über die Ausbildung und Prüfung für die Laufbahn des mittleren Lebensmittelkontrolldienstes (Regulation on the training and examination for the career of the middle food inspection service, Germany)
ASL	Azienda Sanitaria Locale (Local Health Centre, Italy)
BAES	Bundesamt für Ernährungssicherheit (Federal Office for Food Safety, Austria)
BLE	Bundesanstalt für Landwirtschaft und Ernährung (Federal Office for Agriculture and Food, Germany)
BMG	Bundesministerium für Gesundheit (Federal Ministry of Health, Austria)
BRC	British Retail Consortium
BRE	Biuro Rolnictwa Ekologicznego i Produktów Regionalnych (Department for Organic Farming and Regional Products, Poland)
BTSF	Better Training for Safer Food
BÜP	Bundesweiter Überwachungsplan (National Surveillance Plan, Germany)
BVL	Bundesamt für Verbraucherschutz und Lebensmittelsicherheit (Federal Office of Consumer Protection and Food Safety, Germany)
CAB	conformity assessment body
CB	certification body
CRN	National Reference Center (Italy)
CoC	Chain of custody
DOOR	database including product names for foodstuffs registered as PDO, PGI or TSG as well as names for which registration has been applied (Europe)
E.C.M.	Educazione Continua in Medicina (Continuing Training in Medicine, Italy)
EC	European Commission
EMS	Environmental Management System
EN	European standard (established by CEN: Comité Européen de Normalisation)
EU	European Union
e.V.	Eingetragener Verein (registered association)
FAO	Food and Agriculture Organization
FCD	Fédération des Entreprises du Commerce et de la Distribution (French retail federation)
FSC	Forest Stewardship Council
FSSC	Food Safety System Certification
FuttMKontrV	Verordnung über die fachlichen Anforderungen an die in der Futtermittelüberwachung tätigen Kontrolleure – Futtermittelkontrolleur-Verordnung (Regulation on professional requirements for inspectors working in the feed control, Germany)
G.A.P.	Good Agricultural Practice
GFSI	Global Food Safety Initiative
GG	GLOBALG.A.P.
GmbH	Gesellschaft mit beschränkter Haftung (limited liability company)
GMP+ FRA	Good Manufacturing Practice+ Feed Responsibility Assurance
GMP+ FSA	Good Manufacturing Practice+ Feed Safety Assurance
GMP+	Good Manufacturing Practice+
HACCP	Hazard Analysis and Critical Control Points
HDE	Hauptverband des Deutschen Einzelhandels (German retail federation)
ICQRF	Competent body of Ministry of Agriculture and Forestry (Italy)
ICS	Internal Control Systems
IEC	International Electrotechnical Commission

IFS	International Featured Standard
IJHAR-S	Inspekcja Jakosci Handlowej Artykułów Rolno-Spozywczych (Agriculture and Food Quality Inspection , Poland)
IIZZSS	CRN for training and Experimental Veterinary Preventive Medicine Institutes (Italy)
IPM	Integrated Pest Management
IRCA	International Register of Certificated Auditors
ISO	International Organization for Standardization
ISS	Istituto Superiore di Sanità (National Health Institute, Italy)
KPI	Key performance indicators
LANUV	Landesamt für Natur, Umwelt und Verbraucherschutz NRW (State office for nature, environment and consumer protection NRW, Germany)
LkonV	Verordnung über die fachlichen Anforderungen gemäß § 42 Abs. 1 Satz 2 Nr. 3 Buchstabe b des Lebensmittel- und Futtermittelgesetzbuches an die in der Überwachung tätigen Lebensmittelkontrolleure – Lebensmittelkontrolleur-Verordnung (Regulation on the requirements in accordance with § 42 Section 2 of the Food and Feed Code to food inspectors - food inspector regulation; Germany)
LMSVG	Lebensmittelsicherheits- und Verbraucherschutzgesetz (Food Safety and Consumer Protection Act, Austria)
MANCP	Multiannual National Control Plan (according to Article 41 of Re. (EC) No. 882/2004)
MARD	Ministry of Agriculture and Rural Development, Poland
MSC	Marine Stewardship Council
NAS	Nucleo Anti Sofisticazione (Anti Adulteration Unit, Italy)
NRKP	Nationaler Rückstandskontrollplan (National Control Plan for Residues, Germany)
NRW	North-Rhine Westphalia
OSA	Operatore del Settore Sanitario (Food Business Operator, Italy)
PDO	protected designation of origin
PEFC	Programme for the Endorsement of Forest Certification Schemes
PGI	protected geographical indications
QMS	quality management system
QS	Qualität und Sicherheit
RABQSA	Company for Personnel and Training Certification
RAPEX	EU rapid alert system that facilitates the rapid exchange of information between Member States and the Commission
RASFF	Rapid Alert System for Food and Feed (Europe)
REDcert	Renewable Energy Directive certification
Reg.	Regulation
RILA	Retail Industry Leaders Association
RSPO	Roundtable on Sustainable Palm Oil
SA8000	Social Accountability 8000 Standard
TSG	traditional specialties guaranteed
UTZ	UTZ certified
VET	Vocational Education and Training
WHO	World Health Organization
WTO	World Trade Organization
WP	work package

0 Task Work Package (WP) 3

In WP 3, AGRIZERT was responsible for a detailed analysis of existing training concepts for inspectors and auditors in adjacent official and private certification programs for food and feed.

In particular, the WP contains

1) A description and analysis of current training courses (content, methodology) for inspectors and auditors in the food and feed sector

   a. in official controls in Austria, Germany, Italy and Poland

   b. in private certification programs (e.g. GLOBALG.A.P., GMP+, International Food Standard IFS, Reg. (EEC) No. 509/2006 and 510/2006 (now replaced by Reg. (EC) No. 1151/2012)

2) An identification and description of strength and weaknesses

3) An identification of useful elements to improve the training concept for organic inspectors

1 Background

Controls according to Reg. (EC) No. 834/2007 shall assure consumer confidence into products from organic production in all member states of the European Union. In most of the member states, the controls are implemented by private control bodies, accredited to the European standard EN 45011 as well as approved and supervised by competent authorities of the member states. All control bodies are required by EN 45011 to conduct regular trainings for their inspectors according to the needs identified by regular performance reviews addressing the individual deficiencies identified. Overall VET service providers do not exist in Europe.

Due to the growth and the more complex structure of the organic marketplace in the last years, organic inspectors require detailed and sophisticated knowledge on critical points in the organic production chain with international trade exchange and on methodologies for improved risk based inspection approaches towards farmers, processing facilities, importers, feed mills and traders of products from organic farming.

For this purpose already existing training concepts for the official food and feed control in the countries of the project partners as well as several private certification schemes have been reviewed and compared in WP 3 of the IRM-Organic project. Useful elements for training of inspectors have been identified and these results are an input for the tailor-made train the trainer course for organic inspectors, which will be developed in WP 4 of the project.

2 Current training concepts for inspectors and auditors in the food and feed sector

2.1 Official food and feed control and training of the inspectors

The official food and feed control in Europe is based on the Regulation (EC) No. 882/2004 on official controls, which is currently under revision. It aims at ensuring the verification of compliance with feed and food law, animal health and animal welfare rules. The approach of the member states is documented in their Multiannual National Control Plans based on Article 41 of Reg. (EC) No. 882/2204 (MANCP).

Article 6 defines the requirements for the staff performing official controls. It states that:

"The competent authority shall ensure that all of its staff performing official controls:

a) receive, for their area of competence, appropriate training enabling them to undertake their duties competently and to carry out official controls in a consistent manner. This training shall cover as appropriate the areas referred to in Annex II, Chapter I;

b) keep up-to-date in their area of competence and receive regular additional training as necessary; and

c) have aptitude for multidisciplinary cooperation."

Annex II of the regulation specifies the subject matter for the training of staff performing official controls:

1. Different control techniques, such as auditing, sampling and inspection

2. Control procedures

3. Feed and food law

4. The different stages of production, processing and distribution, and the possible risks for human health, and where appropriate for the health of animals and plants and for the environment

5. Assessment of non-compliance with feed and food law

6. Hazards in animal, feed and food production

7. The evaluation of the application of HACCP procedures

8. Management systems such as quality assurance programmes that feed and food businesses operate and their assessment in so far as these are relevant for feed or food law requirements

9. Official certification systems

10. Contingency arrangements for emergencies, including communication between Member States and the Commission

11. Legal proceedings and implications of official controls

12. Examination of written, documentary material and other records, including those related to proficiency testing, accreditation and risk assessment, which may be relevant to the assessment of compliance with feed or food law; this may include financial and commercial aspects

13. Any other area, including animal health and animal welfare, necessary to ensure that official controls are carried out in accordance with this Regulation

2.1.1 Official food and feed control in Germany

In Germany, the responsibility for official food control and inspection rests with the federal states ("Länder"). The competent authorities draw up monitoring programs that are carried out by the food inspection and veterinary offices in the urban and rural districts. The Federal Office of Consumer Protection and Food Safety (BVL) provides assistance in this regard by acting as coordinating and advisory capacity. There are control programs on a nation-wide scale such as the food monitoring (Lebensmittel-Monitoring), the National Monitoring Plan (Bundesweiter Überwachungsplan, BÜP) and the National Control Plan for Residues (Nationaler Rückstandskontrollplan NRKP). The controls are carried out at the production and processing establishments for foodstuffs, commodities and cosmetics, at retail level or at the border inspection posts. Restaurants and communal catering facilities also undergo regular checks. The competent food inspection and veterinary offices in urban and rural districts determine the number of samples they take on the basis of the level of risk. In order to ascertain this level, records on businesses are kept and the businesses then classified into risk categories.

The food inspections are conducted by veterinarians, food chemists and appropriately qualified inspectors. They may take samples against receipt, which they then forward to laboratories for analysis and assessment. In addition to this, the presentation and labelling of products is also checked.

The regulations and requirements for the education as **food inspector** in Germany are laid down in a federal regulation, the "*Verordnung über die fachlichen Anforderungen gemäß § 42 Abs. 1 Satz 2 Nr. 3 Buchstabe b des Lebensmittel- und Futtermittelgesetzbuches an die in der Überwachung tätigen Lebensmittelkontrolleure*" (Lebensmittelkontrolleur-Verordnung – LkonV) (Regulation on the requirements in accordance with § 42 Section 2 of the Food and Feed Code to food inspectors - food inspector regulation). Food inspector is an official job title in Germany and it is only possible to achieve this qualification by further education. This means, that food inspectors need to have an initial qualification, before they can start with a vocational training as food inspector. This initial qualification comprises either a training exam according to the Vocational Training Act or the Crafts Code or as technician with a state exam in a food-related job (e.g. master butcher, master baker, chef cook, master brewer). Also qualified are employees in law enforcement service (police), applicants from the middle and higher civil service which were employed for at least three years in the official food control or persons with a food-related education at a university of applied science (e.g. food technology, nutrition science). More detailed and specific requirements for the vocational training can be laid down in specific regulations by the

federal states (e.g. for Berlin in the Regulation on the training and examination for the career of the middle food inspection service; Verordnung über die Ausbildung und Prüfung für die Laufbahn des mittleren Lebensmittelkontrolldienstes - APOmD LK).

Persons who want to become food inspectors need to apply at a control authority in the administrative districts of the federal states for further vocational training. The vocational training takes 2 years with a theoretical part of at least 6 months and a practical part, which is an internship in an authority (e.g. control authorities, police authority). These authorities also register the participants for the vocational training in the specific institutions for the theoretical part. Training at these institutions can be attended by participants from all federal states. In general, participants from federal states who are financing the respective institution don't have to pay for the training in contrast to participants from the other, non-financing federal states. Institutions in Germany are:

- Academy for Public Health in Düsseldorf (Akademie für öffentliches Gesundheitswesen), an education institution, financed by the federal states of Bremen, Hamburg, Hesse, Lower Saxony, North-Rhine Westphalia and Schleswig-Holstein (http://www.akademie-oegw.de/)

- Administration Academy Berlin
(Verwaltungsakademie Berlin; http://www.berlin.de/verwaltungsakademie/lg/)

- Regional Academy Baden-Wuerttemberg for veterinary and food matters in Stuttgart (Landesakademie Baden-Württemberg für Veterinär- und Lebensmittelwesen (AkadVet) in Stuttgart
http://www.service-bw.de/zfinder-bw-web/authorities.do;jsessionid=838CF3F3D5226CA89C668A8D38FA2E39?bhid=2113217&letter=L&language=deu)

- Bavarian State Office for health and food safety (Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit; http://www.lgl.bayern.de)

In the following sections the training by the Academy for Public Health is described as an example for the education as food inspector in Germany. The vocational training takes 2 years with a theoretical part (720 class hours in 6 months) and a practical part (18 months). The theoretical part is divided into 3 modules. Content of the lessons are general fields of administrative law, specific fields of food legislation, merchandise knowledge, environmental hygiene and dietetics, microbiology and parasitology, food and industrial hygiene, internal control systems in the companies as well as techniques for communication and dealing with conflicts. Altogether 8 intermediate written tests, each of them with a duration of 60-90 minutes, have to be passed by the participants of the vocational training.

The theoretical education mainly takes place in tutorial dialogues, a dialogue between a teacher and the trainees. To deepen the contents group work is carried out in groups with different size and composition. The results of the group work will be presented to the class with the help of flip charts, overhead slides or Power Point presentations. Furthermore, excursions are conducted for practical relevance. Since 2009 part of the learning content is also taught via blended learning.

The teachers distribute written scripts of almost all teaching subjects. Teaching materials besides the scripts are reports from the federal and state authorities as well as casuistries and

demonstration material. Supplementary information is given via book recommendations as well as database and internet addresses for basics contents as well as deepening of contents.

The vocational training is completed by a written, an oral as well as a practical exam. The written part consists of a paper which is prepared under supervision. In the practical part the candidate has to perform three company inspections including taking samples. One control has to take place at a production company; the other two can be at a retail store, a central warehouse, a restaurant and / or at mass caterers.

The Academy for Public Health has also a train-the-trainer concept for the didactical qualification of their lecturers. In 2003 all lecturers took part at a distance learning course, consisting of 10 tutorial notes with assignments and a seminar with required attendance for 3 days. Since then, annually seminars with attendance (1-3 days) are conducted to ensure the methodological and didactical qualification of the lecturers.

To maintain their qualification, food inspectors are required to participate in a further training every two years for 3 days. It is possible to split these in several individual training sessions with a duration between 0.5 to 1 day (§ 4 LKonV). Further trainings are organized by different official authorities, public education institutions (sponsored by the authorities), by the competent food inspection and veterinary offices in urban and rural districts themselves, by professional associations as well as by commercial organizers. Usually the trainings are organized as presentations and/or workshops with physical attendance. Until now, there is no information about the use of online trainings. Contents are as diverse as the tasks of the official food control and include besides technical knowledge, administrative capacities, the use of computer applications, data protection and stress management at the work place. The need for trainings is determined by every authority itself, mainly by a defined procedure in the internal quality management system of the authority concerning the need for trainings and the fulfilment.

Examples for further trainings are trainings organized by the national association of food inspectors (Bundesverband der Lebensmittelkontrolleure e.V.) as well as the federal associations in the federal states of Germany. The associations organize annual meetings as well as several smaller trainings. The trainings are face to face and usually contain several presentations followed by a general discussion. Speakers are from food operators, science, the judiciary and the administration. Additionally these trainings often include on-site visits of a (food) processing company, e.g. beverage companies, wine cellars or meat processing companies.

Requirements for feed inspectors are defined in the federal „*Verordnung über die fachlichen Anforderungen an die in der Futtermittelüberwachung tätigen Kontrolleure (Futtermittelkontrolleur-Verordnung - FuttMKontrV)*" (Regulation on professional requirements for inspectors working in feed control).

For feed inspectors, the initial qualification requirements are higher than for food inspectors. The initial qualification requirements can be on the one hand fulfilled with completed university studies (agricultural economy, nutrition science, veterinary medicine or food chemistry). The other option is a food-related job with defined working experience. This could be a profession, which requires knowledge and skills in the field of feed production according to the feed law, the successful completion of training examination, particularly master's examination, on the basis of the Vocational Training Act or the Crafts Code and at least three years' experience in a managerial

capacity in a company of the feed sector. Another accepted profession is a technician or graduate of an equivalent course of education specializing in agriculture with governmentally recognized final exam, complemented by at least three years managing experience in compound feed, premix or additive production.

Besides the initial qualification, a minimum of 6 months training including theoretical lectures (on feed law, sampling, administrative law, microbiology, good agricultural practice, auditing, conversational skills and other) and an internship is required. This is offered by specific institutions in the federal states, e.g. at the private school for agricultural trade Bundeslehranstalt Burg Warberg in Lower Saxony. Additionally, the regulation also demands further trainings every 2 years for one week (§ 4). It is also possible to split these additional trainings in smaller training sessions with a duration of 0,5 to 1 day each. For example in Bavaria the Bavarian State Office for Health and Food Safety (Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit) organizes several further trainings and one annual meeting of feed inspectors during the year. Content of the trainings are adjusted to the needs and wishes by the Bavarian feed inspection.

2.1.2   Official food and feed control in Austria

In Austria, the Food Safety and Consumer Protection Act (Lebensmittelsicherheits- und Verbraucherschutzgesetz, LMSVG) regulates the official food control. The requirements for an education as food inspector are laid down in the LMSVG - Regulation on LMSVG-training and continuing education (Verordnung der Bundesminister für Gesundheit über die Aus- und Weiterbildung von Aufsichtsorganen und Gutachtern in der Agentur und in den Untersuchungsanstalten der Länder gemäß dem LMSVG – LMSVG- Aus- und Weiterbildungsverordnung).

There is a differentiation for the education and function as food inspector between the following functions: inspectors (Aufsichtsorgane), responsible official veterinarians (beauftragte amtliche Tierärzte) and official assistants (amtliche Fachassistenten).

The regulation defines the prerequisites for admission to the education (e.g. school education, studies at university), the nature and extent of the education (contents of theoretical and practical education) and the extent of the examination subjects and examination commission. The required initial qualification varies considerably, e.g. education with diploma at a vocational school or university degrees in special fields are possible.

For the approval to a further training as inspectors ("Aufsichtsorgane"), the following initial qualifications are accepted (LMSVG-Regulation, 2. Section):

a) a professional education through a Matura or diploma at a

- Relevant higher technical and vocational educational institution,

- Relevant higher agricultural and forestry educational institution,

- Institution of higher learning for tourism or

- Higher commercial school, or

b) a college degree at one of the schools mentioned in point a, or

c) matura examination at a secondary school in connection with a relevant apprenticeship (final exam) with practical knowledge, or

d) the completion of studies at a university, for example, in the study of chemistry, biology, pharmacy, medicine, veterinary medicine, food science and biotechnology, agronomy, or food sciences, or a degree, relevant study at a college, or

e) a degree in veterinary medicine in the case of ante-mortem and post-mortem inspection and for hygiene inspections of slaughter, cutting and game handling establishments.

The further education as food inspector is modular with a duration of at least 9 months for inspectors ("Aufsichtsorgane"). It includes a theoretical part as well as a practical part covering internships at a control authority. The practical part should be complemented by visits of public, economic and social institutions as well as suitable events (§ 10 LMSVG- Aus- und Weiterbildungsverordnung). The modules are completed with oral and/or written tests. Learning contents, which can also be communicated via seminars, practicals and eLearning (§12 of the LMSVG- Aus- und Weiterbildungsverordnung), are

1. Food law and the assessment of violations against this law as well as general law

2. Overview on further relevant regulations along the food chain (e.g. feed law. Wine law, animal protection FAO/WHO, Codex Alimentarius)

3. Basic microbiology, food and industrial hygiene

4. Internal self-control systems, HACCP, management systems

5. Execution of the official control (control methods, review of the documentation), quality management in the official control, rapid alert systems RASFF and RAPEX, emergency plans for crisis situation including communication with member states and the commission

6. Psychological basics of control activities, communication and conflict resolution techniques

7. Fundamentals of dietetics and toxicology

8. Knowledge and technology of food, cosmetic products and commodities

The practical part includes the following learning contents:

1. Official controls according to LMSVG

2. Organization and tasks of the agency or a inspections body of the states in the context of the official food control

3. Organization and tasks of the BMG (Bundesministerium für Gesundheit; federal ministry of health), e.g. coordination of the preparation of the multiannual national control plan

The further vocational training is completed with a final written and oral exam. The written exam lasts 4 hours in which the participant has to prove his or her ability to work out measures or reports independently at three examples. After a successful written exam the oral exam (30-15 minutes) follows 2 weeks later at the latest.

§ 26 of the LMSVG-Regulation defines the requirements for further training of food inspectors in Austria to maintain their qualifications. For inspectors, a minimum of 3 days training (consisting of

8 units á 50 minutes) every two years is required.

Competent authority for the official feed control for commercial feed production and putting it into circulation is the Federal Office for Food Safety (Bundesamt für Ernährungssicherheit, BAES) in Austria. The Countries (Governor; Landeshauptmann) are responsible of controlling the production, use and use of feed on the farm. Ministry of Life (Lebensministerium) is the highest authority of Austria in the official feed control. It coordinates the tasks of the states and the Federal Office.

The regulation on agriculture and forestry, environment and water management – Feed regulation 2010 (*Verordnung des Bundesministers für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, mit der Bestimmungen zur Durchführung des Futtermittel-gesetzes 1999 erlassen werden - Futtermittelverordnung 2010*) specifies the requirements for the official feed control. Amongst other, the initial and further education of the inspectors (Aufsichtsorgane) is defined in § 15. Food inspectors (Aufsichtsorgane) who have the relevant knowledge of feed can also become feed inspectors without a further vocational training if they fulfill specific qualifications laid down in § 15. To maintain their qualification, a further training of 2 days every 5 years is required. Trainings are organised by AGES, the Austrian Agency for health and food security (Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH). Training contents are not regulated by law; they are based on feed law requirements and are taught on a regular basis. Thus, the trainings are adapted in frequency and content to the respective inspector. Examples for teaching content are feed law, HACCP, sampling procedures. Additionally, inspectors attend international training courses, e.g. the free of costs course "Better Training for Safer Food". Parts of the practical further training are on-site control visits which are accompanied by the responsible authorities (e.g. BAES, Governor).

2.1.3 Official food and feed control in Italy

In Italy, official controls in food and feed Sector are carried out by several different authorities; the inspections are implemented by professionals with a proving training record.

Authorities are the following:

- *Ministero della Salute (Ministry of Health):* the central State Authority. It deals with general tasks and management in food safety; processing and development of multi-annual national control plans; supervision and control of the activities of the other authorities that carry out the duties assigned by the government.

- *ICQRF (Competent body of Ministry of Agriculture and Forestry):* fraud prevention and repression in food and feed sector throughout inspection controls and analysis, supervision on all the food and agricultural certification bodies, imposition of administrative and financial sanctions in case of irregularities

- *Regions and Autonomy Provinces:* coordination of ASL local activity (see further), elaboration of regional control plans, supervision and control on ASL activities, authorizations and controls

- *ASL - Azienda Sanitaria Locale (Local Health Centre):* planning, programming and implementation at the local level of official controls on OSA (Operatore del Settore Sanitario; literally: Food Business Operator), which is the natural or legal person responsible for ensuring compliance with requirements of food and feed legislation by the company under his/her control.

- *Police command for human health protection (Division for the Prevention of the Adulteration of Food and Drink):* it relies on Ministry of Health. The military carries out inspections in all companies involved in production, administration, storage or sale of products intended for human consumption.

The staff working for the different authorities has a broad qualification range: veterinarians (graduated in veterinary medicine), hygienists (doctors graduated in medicine and with specialization in hygiene and preventive medicine), agronomists (graduated in agricultural science and/or licentiate in Agricultural Technical Institute), industrial hygienists (graduated in environment and workplace prevention techniques), alimentary technologists (graduated in food science and technology and chemical technicians (licentiate). An exception is the police command, where only military staff graduated in law and/or science of safety is employed.

Audits in the official food and feed sector are carried out mainly by inspectors of the Military Police command for human health protection, part of the unit called NAS (Nucleo Anti Sofisticazione - literally: Anti Adulteration Unit). When it's necessary to increase the number of NAS inspectors, an announcement for internal competitive exams is made, directed to persons already employed in the Military Police. At the end of the competition, a ranking determines who has earned the access to courses for inspectors: in addition to the rank, gained by the correctness of the answers, the final score in the ranking also depends on the level of educational degree and on previous working experiences.

The initial training course for NAS inspectors lasts two months and it consists in frontal lessons and exercitation carried out by officers from the Ministry of Health, researchers form the National Health Institute and officers from the Military Police. The study subjects are the following:

- legal framework

- chemistry

- parasitology

- microbiology

- food science

- audit technique and methodology

These two months of lessons and exercitation are followed by a period of mentoring with audits carried out by experienced inspectors, at least three audits as "observer" and two as "team leader". After the examinations, new inspectors can start to conduct inspections.

Training courses are organized by few national organizations. Some competent authorities (e.g. NAS, ICQRF, ASL) arrange their own professional development for their inspectors, other national institutes organize training courses addressed to inspectors involved in official controls. Due to this fragmented situation in training for food and feed inspectors, and considering that every local ASL

(even though the smaller one, and in Italy there are 146 ASL) could organize training courses for food and feed inspectors by itself, it's very difficult to conduct a detailed and complete analysis.

Competent authorities in charge of training activities in Italy for Food and Feed Inspectors are:

- *Ministry of Agriculture, Food and Forestry (ICQRF)*: training courses are planned, programmed, carried out taking into account the needs identified by headquarters within the limits of their competences. Training is implemented by decentralized courses at their premises or by distance-learning with videoconferences in order to ensure minimum levels of knowledge and upgrading.

- *Ministry of Health*: it schedules yearly training activities asking other authorities to indicate training needs. Ministry of Health is also the "national contact point" for BTSF (Better Training for Safety Food) training program. Each training course is implemented by a specific National Reference Center (CRN) inherent about the subject.

- *CRN for training and Experimental Veterinary Preventive Medicine Institutes (IIZZSS):* propose and/or provide training guidelines to Ministry of Health, mapping out the Annual Training Plan. They also organize residential as well as distance training courses, national and international events, train-the trainer courses, addressed to internal and external workers. A Scientific Committee consisting of people with proven experience highlights the training needs for food and feed inspectors. There's an online training portal, a website allocated for training activities, and an e-learning platform in order to offer distance-learning courses.

- *National Health Institute (ISS – Istituto Superiore di Sanità)* manages training activity for regional and local competent authorities as well as internal staff involved in official controls. Regions, autonomic provinces and ASL found out training needs which are assessed by the Ministry of Health.

- *Regions (or Autonomous Provinces), Local Health Centers (ASL)*

Furthermore, it's a duty of the inspector to upgrade his or her knowledge to the changing legislation in official food and feed sector.

The Ministry of Health established an "E.C.M. Program" (Educazione Continua in Medicina; Continuing Training in Medicine) for this purpose. Each training course has got a number of credits, depending on the argument, the methodology and the duration of the course. Each inspector needs to reach at least 150 training-credits in 3 years by taking part in training courses organized by the authorities. Inspectors are free to evaluate which topics are useful for their activity.

The inspectors that carry out audits for regions and autonomous provinces need to participate in training courses with a frequency established by the regions: e.g. some regions have set a minimum percent of attendance (80%) to courses developed by the competent Local Health Centers (ASL); other regions have fixed at least 3 days of training in a three-year period.

- Training courses can be highly variable: they may be a single day of training (8 hours), but also a longer phase in classroom (from 3 to 5 days) with lectures for the acquisition of theoretical concepts of current European food legislation (Reg. (EC) 882/2004, Reg. (EC) 852/2004, Reg. (EC) 853/2004) as well as international standards and regulations referring

to certification and inspections (ISO 17000, ISO 19011, ISO 22000, ISO 9000). In addition to classroom lectures there are also audit simulation exercises that involve the simulation of all audit phases (audit planning, opening meeting, audit activities, closing meeting, preparation of audit report), and the evaluation of documents (checklist) to verify the compliance with mandatory standards.

- Training on the job in small groups of 5 to 10 people (audit team). The day consists of conducting an audit on food and feed companies, and subsequent drafting of an audit report.

One day training courses can include a little test in the last hour, but this is not a systematic rule. Training courses which last longer days and include a practical training on the job are always completed with an exam on the last day to assess the participant's degree of learning.

An agreement was signed by autonomous provinces and regions, which perform the official controls according to Reg. (EC) 882/2004 through the activity of ASL (Local Health Authorities). The agreement provides national courses for all regions' trainers with a train-the-trainer concept: this should harmonize the training for the inspectors that are implemented on a regional level, but from trainers with the same training on a national level.

2.1.3   Official food and feed control in Poland

Official Food and Feed control tasks in Poland are distributed among five inspection agencies, subject under three ministries:

- the State Sanitary Inspection (Panstwowa Inspekcja Sanitarna) under the Ministry of Health,

- the Veterinary Inspection (Inspekcja Weterynaryjna), the State Plant Health and Seeds Inspection Service (Panstwowa Inspekcja Ochrony Roslin i Nasiennictwa) and the Agriculture and Food Quality Inspection (Inspekcja Jakosci Handlowej Artykułów Rolno-Spozywczych; IJHAR-S) under the Ministry of Agriculture and Rural Development (MARD),

- and the Trade Inspection (Inspekcja Handlowa) under the Office for Competition and Consumer Protection (under Prime Minister).

While the Ministry of Health is solely responsible for health and safety of food and the Office for Competition and Consumer Protection is solely responsible for the trade quality of foods, the MARD is responsible for both as well as the safety of feed. Due to overlapping competencies and double controls, it is planned to aggregate three control agencies (inspections linked to MARD) into a future State Inspection of Food Safety.

Currently all agencies are liable for their own training policies and training plans and are independent in shaping their educational concepts. Each agency has in its internal structure a Department for Staff and Trainings, to coordinate and perform trainings.

All five above mentioned inspection agencies are involved in controls of organic production according to its respective competence scope, by virtue of national organic agriculture act of 2009. However the function of competent authority according to article 27 of the Council regulation No

834/2007, is assigned to Agriculture and Food Quality Inspection (IJHAR-S) and namely to the Main Agriculture and Food Quality Inspector (GIJHAR-S). The beneath information on staff trainings was provided by its Department for Organic Farming and Regional Products (Biuro Rolnictwa Ekologicznego i Produktów Regionalnych, BRE). One may expect similar training concepts in other agencies.

GIJHAR-S's Department for Staff Management and Trainings is liable, among others, for implementation of training policy. Every year, based on notified training needs, a relevant training plan is established. GIJHAR-S guarantees its staff continuous trainings and professional improvement in form of trainings sessions, workshops, seminars and foreign language courses. In 2011 there were 22 topics on the list of staff trainings, in 2012 there were 11 positions. Trainings are organized by GIJHAR-S itself, its regional structures as well as external institutions.

BRE is in charge for internal trainings in regard to organic production and controls thereof. The minimum educational level requirement for organic staff is university degree in agriculture, food science or environmental protection. There are 8 assigned organic inspectors at organic unit BRE of GIJHAR-S and other 60 organic inspectors at 16 regional authorities. In 2011 and 2012 there were internal tests organized, verifying knowledge of organic inspectors of competent authority (IJHAR-S).

There are also trainings for regional inspectors organized by MARD and by GIJHAR-S. Important component for professional improvement of IJHAR-S staff is participation in numerous national and international trainings, seminars, conferences and fairs. In 2012, BRE staff and also inspectors of regional IJHAR-S structures participated in the Training Course on Quality Schemes (Better Training for Safer Food, BTSF) for organic farming and geographic indications. Its aim had been implementation of new strategy for food law, principles of animal health and welfare as well as plant health. GIJHAR-S staff was also involved in preparation and conducting several relevant presentations for BTSF program.

Unfortunately no more information concerning the exact training contents as well as training methods were available as well as information about training and competence of non-organic. food and feed inspectors

2.2 Controls according to Reg. (EU) No. 1151/2012 (replacing No. 509/2006 and 510/2006)

Regulation (EU) No 1151/2012 is about quality schemes for agricultural products and foodstuffs and replaces the regulations (EU) No. 509/2006 on agricultural products and foodstuffs as traditional specialties guaranteed as well as No. 510/2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs. This means regulation 1151/2012 is covering three quality schemes: protected designation of origin (PDO), protected geographical indications (PGI) and traditional specialties guaranteed (TSG).

Title V (Common provisions) defines the in chapter 1 the official controls for these products:

"In accordance with Regulation (EC) No 882/2004, Member States shall designate the competent

authority or authorities responsible for official controls carried out to verify compliance with the legal requirements related to the quality schemes established by this Regulation. (…)

Official controls shall cover:

   a) verification that a product complies with the corresponding product specification; and

   b) monitoring of the use of registered names to describe product placed on the market, in conformity with Article 13 for names registered under Title II and in conformity with Article 24 for names registered under Title III."

The competent authorities in charge of controls on the marketplace are published in the internet for each member state (http://ec.europa.eu/agriculture/quality/schemes/compliance-authorities_en.pdf). According to regulation 1151/2012, competent authorities have the possibility to delegate specific tasks of the control to control bodies, which are accredited in accordance with European Standard EN 45011 or ISO/IEC Guide 65. Competent control authorities/control bodies ensuring the respect of specifications can be seen in the EU database DOOR (http://ec.europa.eu/agriculture/quality/door/list.html) for each specification.

The following procedure is an example for the federal state North-Rhine Westphalia (NRW). The competent control authority LANUV (Landesamt für Natur, Umwelt und Verbraucherschutz NRW; State office for nature, environment and consumer protection NRW) has decided to delegate tasks to control bodies. The product certification prior to marketing which means ensuring the respect of specifications is carried out by accredited control bodies, which need to be approved by LANUV. Control bodies have to formally apply for admission at LANUV in advance (German application form: http://www.lanuv.nrw.de/verbraucher/pdf/Anlage%201.pdf). Control concepts and criteria are agreed upon between the LANUV and the control bodies.

For the training of LANUV office staff and field service regular workshops are organized by the LANUV for its members. The training of inspectors of private control bodies is organized by the control bodies themselves, they are responsible for content and methodology. Requirements are in some way set by the regulation itself. The scope of the regulation is very narrow in comparison to the organic regulation, thus content for the training of inspectors is less comprehensive. It means that inspectors have to be trained to control a defined specification step by step which is therefore content of the trainings.

2.3   Short comparison of trainings in official food and feed control

Differences can be seen in the required initial qualification of food and feed inspectors in the considered member states of the EU. In Germany, food and feed inspectors require an initial education and a further vocational training (24 months for food inspectors, 6 months for feed). However, potential feed inspectors need a higher initial qualification to participate in the vocational training, e.g. a university degree or 3 years feed-related work experience. In Austria, food inspectors also need an initial education before starting a further vocational training. The required initial qualification varies, e.g. education with diploma at a vocational school or university degrees in special fields are accepted. A further vocational training is also required for food inspectors.

Food inspectors (Aufsichtsorgane) who have the relevant knowledge about feed can also become feed inspectors without a further vocational training if they fulfill specific qualifications laid down in § 15 of the Feed Regulation 2010 (Austria). In Italy, the staff working in the different authorities has a broad qualification range (see chapter above). The initial training for food and feed inspectors lasts two months with theoretical lessons, followed by a period of mentoring with audits carried out by experienced inspectors. Information for Poland is not available.

Briefly summarized, research into training of food and feed inspectors in the partner member states has shown the following.

The structure of the initial training for new inspectors is comparable; a modular structure with theoretical and practical parts as well as final exams for the further vocational training. But the duration is very different (24 months in Germany, 9 months in Austria, 2 months and more in Italy, no information for Poland). The content/topics of the initial training is similar for all member states because they are already specified by the Regulation EC No. 882/2004.

Most common are face to face trainings, organized as lectures with presentations and general discussion. Additional elements are on-site visits of companies (also witness inspections), interactive seminars (including role plays, case studies, audit simulations, small working groups). Sometimes E-Learning is used for distance training courses.

The further trainings for experienced inspectors also have a modular system – inspectors can choose the trainings they want to attend; only the total duration has to be in accordance to the official regulations. In Germany 3 days are mandatory every two years for food inspectors, for feed inspectors one week every two years. In Austria, 3 days every two years for food/feed inspectors are required.

In Italy, the frequency is established by the regions (e.g. minimum percent of attendance (80%) to courses developed by the competent Local Health Centers (ASL); at least 3 days of training in a three-year period)

The content of the further trainings is adapted to the requirements of the Regulation (EC) No. 882/2004 and additionally adapted to current issues, situations as well as scandals in the food and feed sector.

4   Description of private certification schemes and their training concepts

In the following chapter, several private certification schemes and their training concepts are described in detail. In general, it has to be distinguished between the training and qualification of auditors, who are just getting started in the relevant scheme. On the other hand, there are requirements for the on-going qualification of already approved auditors. An overview of relevant aspects of several considered private certification schemes is shown in table 1:

4.1 Private certification schemes

4.1.1 British Retail Consortium (BRC) Global Standards

In 1998 the British Retail Consortium (BRC) developed and introduced the BRC Food Technical Standard for the evaluation of manufacturers of retailers own brand food products. In a short space of time, this standard became relevant to other organizations across the sector. Its use outside the UK has seen it evolve into a Global Standard used not just to assess retailer suppliers, but as a framework upon which many companies have based their supplier assessment programs and manufacture of branded products.

Following the widespread acceptance of the BRC Food Technical Standard, the BRC started to publish other standards:

- Packaging Standard (first published in 2002)

- Consumer Products Standard (first published in 2003,

- BRC Global Standard - Storage and Distribution (first published in 2006).

In 2009, the BRC partnered with the Retail Industry Leaders Association (RILA) to develop the Global Standard for Consumer Products North America edition. Each of these standards is regularly reviewed, revised and updated at least every 3 years after extensive consultation with a wide range of stakeholders.

More information about the different standards can be found under: http://www.brcglobalstandards.com. The standards have to be purchased at the BRC Bookshop

BRC auditors

Requirements for initial auditor qualifications are laid down in the Annex 3 of the BRC Food Safety Standard as well as "F015: BRC Global Standard for Food Safety Issue 6: Guidelines on satisfying Auditor Competence for the BRC Global Standard for Food Safety".

Auditors require

- an appropriate higher education qualification such as a degree or diploma in a food or bioscience-related discipline.

- an appropriate post qualification work experience (minimum 5 years related to food industry which involves work in quality assurance or food safety functions within manufacturing, retailing, inspection or enforcement)

- a recognized third party auditor qualification (40 hours with examination, only a registered Lead Assessor Course, e.g. IRCA, or the BRC Third Party Auditing course delivered by a BRC Approved Trainer)

- a qualification in HACCP or risk assessment (HACCP course with a minimum of 2 days duration)

- a completed BRC training in the specified Global Standard (delivered by a BRC approved

training provider and achieving a merit pass in the exam(s))

- audit experience – generally a specified number of audits including those against BRC Global Standards (a period of supervised training, including witnessed audits, in practical assessment through 10 audits or 15 audit days involving third party food safety audits, at least five audits must be against the Global Standard for Food Safety)

For the five BRC audits, the new auditors shall be accompanied by an experienced BRC auditor on their first 2 BRC audits. "Audits" 3 and 4 may be made up of any combination of:

- Accompanied audits with an experienced BRC auditor

- Supplementary training/coaching on the standard to develop a deeper understanding of the practical application of audit requirements through exercises, role play and discussion groups – minimum 2 days duration (see Appendix 2 from F015)

In all cases, where the auditor is assessed as sufficiently trained, audit 5 shall be an accompanied witness sign off audit (see procedure BRC018).

In addition, auditors must be competent within the product category and have sufficient experience of the particular product and its associated technologies. The typical types of products and technologies relevant to each category are highlighted in Appendix 1 of F015: BRC Global Standard for Food Safety Issue 6. It would usually be expected that an auditor will have had one or a combination of

- Minimum of 6 months' work experience in an industry relevant to the category with responsibilities including Quality or Technical functions

- Minimum of 6 months experience in a consultancy capacity with responsibilities for Quality and Technical consultancy

- Have conducted a minimum 5 relevant audits/10 man days in that category.

Experienced auditors already registered for BRC Global Standards must attend a BRC training every time a new version of the standard is published, e.g. a 2 day BRC Global Standards conversion course from issue 5 to issue 6. Each auditor shall undertake at least 5 audits (this may include, enrolment audits or part of unannounced audit option 2) per year against the standard to maintain scheme knowledge. The auditor also needs a continuous training by the certification body (CB). He or she must be kept up to date with 'Category Best Practice', have access to and be able to apply relevant laws and regulations, with records of update trainings held by the Certification Body. Auditors are expected to undertake Continual Professional Development to ensure their knowledge and experience is kept relevant and up to date. Additionally witness audits should be carried out once every two years.

4.1.2 GLOBALG.A.P. Standards

GLOBALG.A.P.'s roots began in 1997 as EUREPGAP, an initiative by retailers belonging to the Euro-Retailer Produce Working Group. British retailers working together with supermarkets in continental Europe became aware of consumers' growing concerns regarding product safety,

environmental impact and the health, safety and welfare of workers and animals. Their solution was to harmonize their own standards and procedures and develop an independent certification system for Good Agricultural Practice (G.A.P.). To reflect both its global reach and its goal of becoming the leading international G.A.P. standard, EurepGAP changed its name to GLOBALG.A.P. in 2007.

GLOBALG.A.P. sets voluntary standards for the certification of production processes of agricultural (including aquaculture) products. It serves as a practical manual for Good Agricultural Practice around the world. The basis is an equal partnership of agricultural producers and retailers who wish to establish efficient certification standards and procedures.

The following standards are covered within the GLOBALG.A.P. series:

1. GLOBALG.A.P. INTEGRATED FARM ASSURANCE STANDARD (IFA) is a single integrated standard with modular applications for different product groups, ranging from plant and livestock production to plant propagation materials and compound feed manufacturing.

2. GLOBALG.A.P. COMPOUND FEED MANUFACTURER STANDARD (CFM): GLOBALG.A.P. has set rules and regulations to acknowledge an established assurance system of Compound Feed Manufacturers (CFMs).

3. GLOBALG.A.P. LIVESTOCK TRANSPORT (LT)

4. GLOBALG.A.P. PLANT PROPAGATION MATERIAL STANDARD (PPM): Farm assured propagation material forms a good basis for a sound, farm assured plant production.

5. GLOBALG.A.P. RISK ASSESSMENT ON SOCIAL PRACTICE (GRASP): GRASP is a voluntary module that complements GLOBALG.A.P. certification with an assessment of very basic worker welfare criteria. It is an add-on to the GLOBALG.A.P. IFA Standard. The outcome of the assessment does not affect the GLOBALG.A.P. certification but serves as additional information in the supply chain.

6. GLOBALG.A.P. CHAIN OF CUSTODY (CoC)

More information and the current standards can be found under: http://www.globalgap.org

GLOBALG.A.P.-Auditors and -Inspectors

In the GLOBALG.A.P scheme, there are requirements and qualification criteria determined for auditors as well as inspectors. They are laid down in the "*General regulations Part III – CB and accreditation rules*" in Annex III.2 *(GLOBALG.A.P. CB Auditor qualifications - Option 1 multisite with QMS; Options 2 and 4),* and "Annex III.1 *(GLOBALG.A.P. CB Inspector qualifications - Options 1 and 3).*

For the initial approval an inspector or auditor has to fulfil the following requirements

• Formal qualification: at least a post high school diploma or equivalent (minimum course duration of 2 years) in an discipline related to the scope of certification (Crops and/or Livestock and/or Aquaculture and/or Feed Manufacturing/Animal nutrition)

• training: inspectors must have completed a one-day practical inspection course setting out basic principles of inspection; auditors must have completed a lead assessor training

course based on ISO 19011 (minimum duration 37 hours) as well as have practical auditing experience (minimum 10 days in management system e.g. ISO 9000, ISO 22000, BRC Food, IFS Food)

- further training either as part of formal qualification (degree/diploma) or completion of a separate formal course in HACCP principles, food hygiene, training related to the relevant scope (e.g. for crop scope plant protection, fertilizer and IPM training)

- completion of GLOBALG.A.P. Online Training (all online tests with its updates)

- a minimum of 2 years work experience in the respective scope and 3 years overall experience in the agricultural industry

Applicant inspectors and auditors shall observe minimum one Option 1 producer or one Option 2 producer group member inspection (+ one Option 2 QMS audit for applicant auditors) as well as be witnessed by the CB at an inspection of minimum one Option 1 producer or one Option 2 producer group member (+ one Option 2 QMS audit for applicant auditors). Additionally, auditors shall attend a "CB Option 2 Auditor Training" and pass the exam for each new version of the standard.

Already approved GLOBALG.A.P.- auditors need to fulfil the following requirements for maintaining their qualification:

- 5 inspections/audits or 10 inspection/audit days a year (to maintain scheme knowledge and stay registered on the GLOBALG.A.P. database)

- be witnessed by the CB once every 4 years

- complete the GLOBALG.A.P. online training for new versions and pass the online tests (including exams of the updates) within 3 months after its release.

- complete required CB In-house trainings for the relevant scope

The In-house trainings are conducted by the CB's subscope and version (of the standard) specific In-House Trainer. The In-House Trainer has to attend the face-to-face "CB In-house-Trainer Training" provided by GLOBALG.A:P. and pass the exam for every subscope the CB issues or plans to issue certificates. The In-House Trainer is responsible for the training of all GLOBALG.A.P. inspectors and auditors of a CB (face-to-face) and shall ensure that they complete and pass all the required trainings and exams (provided by GLOBALG.A.P.)

4.1.3 GMP+ Feed Safety Assurance (GMP+ FSA) and GMP+ Feed Responsibility Assurance (GMP+ FRA)

GMP stands for Good Manufacturing Practices. In 1992 the current GMP+ Feed Certification scheme started out. Afterwards, it developed into a full-fledged certification scheme by integrating ISO quality management requirements, HACCP and other elements. The + stands for the integration of HACCP: 'Hazards Analysis and Critical Control Points'.

Today, the GMP+ Feed Certification scheme consists of two modules, GMP+ Feed Safety Assurance (GMP+ FSA) and GMP+ Feed Responsibility Assurance (GMP+ FRA). It is intended for the certification of companies active in the feed chain around the world. The GMP+ FSA module has been developed to guarantee feed safety and to reassure consumers about the way animal feed products are produced, processed, traded, stored and transported. Requirements for feed safety assurance are laid down in the GMP+ standards, which are based on legislation and additional requirements from stakeholders in the market.

More information and the current standards can be found under: https://www.gmpplus.org

GMP+ Auditors

The GMP+ document "GMP+ C1 -Approval requirements and Procedure for Certification Bodies", especially the Appendix 2, defines the requirements for auditors in the GMP+ scheme.

Auditors require for the GMP+ FSA module

- a relevant agricultural, foodstuffs, logistics, transport or laboratory training to at least Bachelor level or at least an equivalent level of experience

- knowledge and skills with respect to methods and techniques aimed at the assessment of quality assurance systems:
  - HACCP feed, HACCP foodstuff or ISO 22000;
  - GMP+ FSA scheme
  - Feed legislation

- compliance with requirements for auditors EN ISO19011:2002 as well as lead assessor training (IRCA certified, or demonstrable equivalent)

- a minimum of 3 audits accompanied by an experienced GMP+ auditor specifically for this scope or equivalent systems as laid down in "*GMP+ BA10 Minimum requirements for Purchasing of the GMP+ FSA scheme*"

- a minimum of 5 independently carried out audits in relevant fields of work (for example another GMP+ scope(s)/standard with which GMP+ has mutual recognition, HACCP feed / food, ISO 9001/22000, BRC, IFS and FSSC 22000)

- having demonstrably followed an established initial training programme (content of the training programme must be demonstrable focussed on the scope)

- successfully completing of an initial examination for each standard/ scope

Approved auditors have to attend at least the mandatory number of hours at the professional meetings organised by the certification body. These are 8 hours for each approved scope with a maximum of 32 hours a year. Additionally, equivalent scopes have been formulated for which exemptions are possible (see document GMP+ C1). The trainings are face to face, methodology and content is determined by the certification body. They contain for example presentations by CB staff or external speakers from relevant areas (e.g. feed law) as well as discussions of case studies from the daily work experience of the auditors. Another relevant point can be the preparation for the periodical exams with old examination documents.

Every experienced auditor must pass the periodic examination for maintaining scope approval. Depending on the result of the exam, the approval of the auditor is prolonged for up to 3 years and the next exam must be passed when the approval needs to be renewed. In order to retain approval each auditor should also carry out at least 5 audits per year per standard / scope for which the auditor in question has been approved. The exemption rules may also apply, which means an audit / examination acceptation for a specific scope can also apply as audit / examination acceptation for other defined scopes (see document GMP+ C1).

4.1.4 International Featured Standards (IFS)

The associated members of the German retail federation – Hauptverband des Deutschen Einzelhandels (HDE) – and of its French counterpart – Fédération des Entreprises du Commerce et de la Distribution (FCD) – drew up a quality and food safety standard for retailer branded food products, named the IFS Food, which is intended to allow the assessment of suppliers' food safety and quality systems, in accordance with a uniform approach. This Standard applies to all the post-farm gate stages of food processing. The first version (Version 3) was launched in 2003; for version 5 the Italian retail associations joined the group. In 2012 the latest version (version 6) was published, now officially by the newly founded IFS Management GmbH.

Having started in 2003, the International Food Standard has continuously developed into an internationally recognized umbrella brand now called International Featured Standards (IFS), which now comprises 6 globally applied standards.

- IFS Food: standard for companies that process or work foods

- IFS Cash & Carry/ Wholesale: standard which covers all handling activities of loose naked products in Cash & Carry-markets or wholesale companies (includes also a production process in a small amount of products)

- IFS HPC (Household and Personal Care): standards for companies that work or process non-food products like cosmetics, household products or daily use goods

- IFS Logistics: standard for all sorts of transportation (covers all logistics activities, such as loading, unloading and transportation), applicable to food and non-food products

- IFS Broker: standard for all companies primarily involved in "trading activities, without

themselves ever having come into contract with the product.

- IFS PACsecure: packaging material safety and quality standard that applies to all forms of primary and secondary packaging materials

More information and the current standards can be found under: http://www.ifs-certification.com

IFS auditors

The specific requirements for IFS auditors are laid down in the standards of IFS (e.g. IFS Food standard). It is exemplified for the IFS Food Standard Version 6 in this report, which is the most common standard. Most other IFS standards and required auditor qualifications are based on the IFS Food Standard. An exemption to all other mentioned private certification schemes is that IFS auditors can only work for one certification body if approved not for different ones.

Auditors require

- an education in the food sector (a food-related degree and two years professional experience in the food industry in relation to food production activities, OR five years professional audit experience in the food processing industry, OR a university degree not food-related and five years professional experience in the food industry in relation to food production activities, OR professional education in food processing (high degree) and five years professional experience in the food industry)

- general audit experience (a minimum of ten complete audits in the food processing industry during the previous two years)

- completion of a food hygiene training (including HACCP)

- completion of a training in auditing techniques based on Quality Management System or Food Safety Management System (duration: one week/40 hours or equivalent)

- specific and practical knowledge per product scopes and technology scopes auditors apply for (laid down Annex 1 of the IFS Food Standard V6), which means 2 years work experience in relation to food production activities for each applied product scope and each applied technology scope or at least ten (10) food safety GFSI recognised audits and/or second party audits (by the retailer or by the industry) per product scope

- participation in an in-house training (covering IFS, food-related legislation, food hygiene) undertaken by an authorised IFS trainer and organised by the certification body (duration 2 days)

If an applicant auditor fulfils all criteria, he or she can take part in an IFS written examination and, if successful, in an oral examination.

Once approved (for 2 years), auditors need to visit a calibration training organized by IFS (once in 2 years), visit the IFS in-house trainings organized by the CBs (2 days/year), be witnessed by the CB (once in 2 years) and perform 5 audits a year.

The content of in-house trainings is partly defined by the train-the-trainer training of IFS: The methodology is in the responsibility of the CB. Auditors shall be trained on the content as well as on new regulations, clarifications or changes of the standards. Trainings have to be face to face, not online. The official calibration trainings by IFS are also face to face with a duration of 2 days.

The purpose is to calibrate and harmonize the auditors regarding their assessment of requirements in the standards. Besides presentations, case studies and group work are the preferred methods used in the trainings.

4.1.5 Marine Stewardship Council (MSC) Standards

The Marine Stewardship Council (MSC) developed two standards: one for sustainable fishing and one for seafood traceability. They ensure that MSC labelled seafood comes from, and can be traced back to, a sustainable fishery. With the MSC environmental standard for sustainable fishing, fisheries can demonstrate that their practices are sustainable and get access to market benefits by getting certified. The MSC environmental standard was developed following an international consultation with stakeholders between 1997 and 1999. This consultation involved more than 300 organizations and individuals around the world. The standard is based on the FAO Code of Conduct for Responsible Fisheries and other international conservation instruments. For seafood traceability MSC developed the MSC chain of custody (CoC) standard. When seafood is sold with the MSC ecolabel every business in the supply chain must have undertaken a detailed traceability audit against the MSC Chain of Custody standard. This ensures that only seafood from a certified fishery is sold with the MSC ecolabel. The MSC Chain of Custody standard for seafood traceability was established in December 1999 and based on existing best practice traceability standards. In August 2005, version 2 of the standard came into use, in August 2011, the currently valid version 3 of the standard was published.

The standards and other relevant documents can be found at http://www.msc.org

MSC auditors

The requirements for MSC auditors are defined in the MSC certification requirements V1.3. There are general qualification criteria for auditors as well as specific ones for personnel assessing fisheries (Fishery Team Leader, Team Member and whole Fishery Team) and CoC auditors (including group CoC auditors). Besides that, it is required to name a CAB (Conformity Assessment Body = certification body) Lead Auditor for CoC certification, who has a mentoring role for the other CoC auditors in the CAB.

For MSC CoC auditors the following requirements have to be fulfilled

- 5 years' work experience including 2 years food-related, in supply chain management, science, traceability or policy development or a degree or equivalent in business, economics, science or technical programme and 3 years work experience including 2 years food-related, in supply chain management, science, traceability or policy development. Examples of technical qualifications include: supply chain and logistics management, food/seafood science and fisheries science

- passing MSC's CoC auditor training course (online training)

- witness or participate in two MSC CoC audits or audits for equivalent standards and conduct at least two satisfactory MSC CoC audits or audits for equivalent standards under

the direction and guidance of a competent lead auditor prior to undertaking solo audits.

Before becoming a CoC Group auditor, CoC auditors additionally have to

- pass MSC's group CoC auditor training (online training)
- 50 days auditing experience as a lead auditor for management system related standards (e.g. ISO 9001, IFS)
- have led at least one group audit for MSC or equivalent standards OR witness or participate in one MSC CoC group audit or group audit for equivalent standards under the direction and guidance of a competent MSC group entity auditor

Furthermore, the CAB Lead Auditor has to prove third-party product and management system conformity assessment auditing techniques by passing an IRCA / RABQSA recognised EMS / QMS or GFSI-approved standards or HACCP lead assessor training course or by registration and EMS / QMS auditor with IRCA or RABQSA or by passing a course on auditing based upon ISO 19011 with a minimum duration of 3 days.

Qualifications requirements for fishery team members are comparable in the basic elements: a university degree or 5 years working experience in relevant defined fields as well as passing the fishery team member online training or performing 2 assessments or site visits during the last 5 years. Fishery team leaders have to pass the online training and conduct 2 MSC fishery assessments or surveillance site visits as a team member in the last 5 years.

Already approved auditors have to

- pass the relevant MSC training course every 3 years (CoC auditors course, CoC Group auditor Course, Fishery team member course, fishery team leader course)
- pass MSC's annual training on updates to the relevant certification requirements by the end of June each year (except for fishery team members)
- participate in a defined number of audits in a defined time frame (e.g. CoC: 3 MSC CoC audits every 18 months)
- be witnessed by a qualified MSC lead auditor no less than once in each three year period (only for CoC)

MSC online trainings are divided in several modules for different parts of the MSC program. Depending on the role of the auditor (e.g. for fisheries, for CoC, CoC Group auditors), specific modules are mandatory. They have to be completed (including the test) every three years. Additionally a module with update of the certification scheme has to be completed every year. At the moment, there are no experiences with the use of the online training, because these just started in March 2013. The online platform can be found at: http://byglearning.co.uk/MAR-3612-LMS/Content/Login.aspx

Additionally MSC uses webinars for the information of the CBs. For example, these were held for the new certification requirements in 2013 as well as for the new online trainings portal.

4.1.6 QS. Quality scheme for food

The QS scheme is a cross-stage and cross-company quality assurance scheme for the production, processing and marketing of foodstuffs. Created in Germany in 2001 for meat and meat products, it was expanded in 2004 to include fruit, vegetables and potatoes. QS has different guidelines for the different stages in the supply chain meat (retail and sale, processing, slaughtering/deboning, agriculture/livestock transport, feed) and the different stages in the supply chain fruit, vegetables, potatoes (food retail, wholesale/logistics/freshcut, production).

The QS certification logo represents the "QS. Quality Scheme for Food." Products that bear this mark are thus 100 percent QS. This means that all participants in the food chain are QS scheme participants. Only then a product, be it a piece of meat, an apple or a potato, can bear the QS certification logo.

More information and the current guidelines can be found under: http://www.q-s.de

QS-Auditors

Detailed information about the auditor qualification and maintaining of the auditor approval are laid down in the "QS Guideline Certification".

At initial approval, QS auditors require

- a technical qualification relevant for the different stages the auditor applies for (e.g. graduate horticulturalist for "Fruit, Vegetables, Potatoes - Production", veterinarian for "Meat and meat products – slaughtering, deboning"; for a detailed overview see table 3 in the QS Guideline certification)

- participation in an auditor course (including fundamentals of quality management, EN ISO 9001, EN ISO 19011, EN 45011, communication and auditing techniques)

- participation in an internal training by the certification body (about stage-specific documents of the scheme manual, the QS inspection system as well as the General Regulations etc.)

- participation in an initial training by QS (including successful passing of a test)

- participation in stage-specific training within 12 months after initial training (including tests)

- evidence of at least 10 audits within the last 2 calendar years for each approval stage (three of these ten audits must be carried out independently and as QS audits under the supervision of an auditor approved for the respective stage)

Specific requirements are laid down for auditors in the feed sector and for feed material production as well as for auditors conducting coordinator audits.

For maintaining the auditor approval, a minimum number of audits is required (20 audits in 2 years), an annual stage-specific auditor training by QS including a test (multiple choice and open questions) for every approved stage as well as the participation in at least one internal training on the QS scheme organized by the CB. QS trainings are all face-to-face including presentations, discussions and case studies. Every CB can decide about the training methods itself.

4.1.7 REDcert

Because of the introduction of a mandatory sustainability certification for biofuels and liquid biomass based on national and European specifications (Biomass Sustainability Ordinances and the EU Directive on renewable energies), REDcert (**R**enewable **E**nergy **D**irective **cert**ification) was founded in February 2010 by leading associations and organizations in the German agricultural and biofuel sector. It was approved as a certification system in July 2010 by the Federal Agency for Agriculture and Food (Bundesanstalt für Landwirtschaft und Ernährung – BLE) to fulfil the requirements of the German Biomass Sustainability Ordinances (BioSt-NachV and Biokraft-NachV). On July the 26th 2012 REDcert was also recognized by the European Commission as a system for the certification of sustainable biomass. Now in all European Member States and selected third countries certifications are possible after the system REDcert-EU.

The certification system can be applied to all of the steps involved in the process starting with production and collection of input materials through to processing in oil mills and the production of biofuel and liquid biofuel.

More information as well as the REDcert standard can be found at http://www.redcert.org.

REDcert inspectors

Qualification criteria for inspectors in the REDcert-EU certification scheme are laid down in the document "REDcert. Requirements for neutral inspections, 15. February 2012". Chapter 4 defines the requirements for REDcert inspectors which are

- at least 4 years of professional experience in the area to be inspected in a respective position
- extensive knowledge of the legal requirements in the relevant area and of the REDcert system requirements
- proof of technical knowledge in the fields of GHG (greenhouse gas) balancing, inspections of farms (knowledge of handling data sources, soil knowledge, biological and ecological knowledge) as well as inspection of interfaces, storage facilities and suppliers
- training (in accordance with EN ISO 19011), duration at least 3 days
- at least 5 inspections in the last 2 years in the inspected area (e.g. ISO 9001, ISO 14001, GMP, QS).

Additionally, the inspectors must be trained in the REDcert system before they can begin their activities in the system. They are required to participate regularly, at least once a year, in training for the REDcert system. The training sessions are either offered and conducted by REDcert or, after consultation on content and scope, by the certification body responsible. This requires, however, that "information disseminators" at the certification take part in the trainings offered by REDcert.

The certification bodies are responsible for implementing external and internal training for inspectors. The certification bodies are informed and trained in regular informational events and

training sessions as well as with newsletters and memoranda on current issues and developments in the relevant areas. It is the responsibility of the certification body to appoint a contact person who disseminates this information in internal training sessions. Methods for training can be chosen by the CB. Known used methods are presentations, open discussion and case studies.

4.1.8 UTZ certified. Better farming. Better future.

UTZ Certified is a sustainability program and label for sustainable farming of coffee, cocoa and tea. It stands for sustainable farming and better opportunities for farmers, their families and our planet. The UTZ program enables farmers to learn better farming methods, improve working conditions and take better care of their children and the environment. UTZ also can track and trace the coffee, cocoa and tea from the farmer to the shelf in the store.

In 1992 "Utz Kapeh", which means "good coffee" in the Mayan language Quiché, was founded. In 2002 the head office was opened in The Netherlands. Since the market launch in 2002, UTZ Certified has grown to be one of the leading sustainable coffee programs worldwide. Based on this success, UTZ Certified has developed code of conducts for cocoa and tea (2007), and provides traceability services for RSPO (Roundtable on Sustainable Palm Oil) certified sustainable palm oil (2007), and the Better Cotton Initiative (2010). In March 2007, Utz Kapeh updated its name to UTZ Certified Good inside to reflect the wider range of commodities in the UTZ program. In 2014 a general code of conduct shall replace the product specific code of conducts.

Qualification requirements for lead auditors, auditors and internal inspectors are laid down in the UTZ Certified Certification Protocol. A differentiation is made between Lead Auditor, Auditors and Inspector.

UTZ auditors

The qualification requirements are laid down in chapter 8 of the UTZ Certified Certification Protocol (September 2012). Qualification criteria are slightly varying depending on the role in the UTZ certification scheme (lead auditor, auditor) and certification scope (Code of Conduct, Chain of Custody).

Lead auditors are the responsible persons within the CB for amongst other things ensuring and supervising that all auditors:

- are qualified conforming to the auditor requirements of this Certification Protocol.
- conduct the audits according to this Certification Protocol.

An auditor is the person who conducts the field/site audit, but the lead auditor may also perform audits in the field/on-site.

Code of Conduct auditors require

- a minimum of post high school (post-secondary school) training in horticulture or agriculture/food related discipline (for the lead auditors including the understanding of the application of Good Agricultural Practices (GAP) and Integrated Pest Management (IPM))

- a proof of participation in training on the UTZ Certified Code of Conduct, given by UTZ Certified or by the lead auditor within the CB

- demonstrable knowledge of the production and processing systems of the applicable UTZ Certified products (coffee, cocoa and/or tea)

- experience in auditing of Internal Control Systems (ICS) or proof of ICS training (only applicable in case of certification of groups)

- understanding GAP and IPM

- proof of auditor training including social and environmental auditing skills.

The lead auditor additionally requires

- training in the practical application of the UTZ Certified Code of Conduct, and Certification Protocol.

- successful completion of the E-learning course or webinar for UTZ Certified CBs.14

- successful completion of an ISO 9000/9001 lead auditor course and experience in auditing of ICS or proof of ICS training (only applicable in case of certification of groups).

- successful completion of HACCP training based on the principles from Codex Alimentarius (Alinorm 97/13) or ISO 22000 course and the ability to demonstrate competence in understanding and applying a HACCP system or ISO 22000 and mould-toxin prevention.

- successful completion of food hygiene training, either as a part of professional qualifications or by the successful completion of a course.

- qualification for auditing social or ethical standards, e.g. demonstrable knowledge of worker welfare issues and social auditing experience, for example with SA8000 or related social or ethical accountability codes such as Fairtrade.

- successful completion of a training or workshop on occupational health and safety auditing.

- successful completion of a training or workshop on environmental or ecological auditing or demonstrable knowledge of and experience in environmental and ecological auditing, for example experience with organic agriculture, ISO 14001 or Environmental Management Systems (EMS).

Qualification criteria for Chain of Custody Lead Auditor and auditors are less high. For the Chain of Custody auditors they are as follows:

- a minimum of post high school (post-secondary school) training in horticulture or agriculture/food related discipline

- demonstrable knowledge of production and processing systems

- successful completion of HACCP training based on the principles from Codex Alimentarius (Alinorm 97/13) or ISO 22000 course, and ability to demonstrate competence in understanding and applying a HACCP system or ISO 22000 and mould-toxin prevention

The Lead Auditor for Chain of Custody additionally has to fulfil the following requirements:

- experience in auditing production and processing systems

- training in the practical application of the UTZ Certified Chain of Custody and labelling requirements, knowledge and understanding of the UTZ Certified program.

Additionally every CB has to appoint a scheme manager who is responsible for the communication with UTZ certified. He is also required to follow the relevant UTZ Certified trainings.

The UTZ certified online training centre for all interested persons can be found at: http://www.utzcertified-trainingcenter.com. For the specific auditor training, you need to be registered at UTZ as an auditor and get a specific login to the non-public domain. Besides the face-to-face and online trainings, UTZ certified also uses webinars for training purposes.

4.2   Short comparison of trainings in private certification schemes

Five of the presented certification schemes require an accreditation of its certification bodies against EN 45011 (ISO/IEC Guide 65, in future ISO/IEC 17065: Conformity assessment — Requirements for bodies certifying products, processes and services). Chapter 6.1.2 of the norm (Management of competence for personnel involved in the certification process) can be considered as a framework for auditor qualification and training

"6.1.2.1 The certification body shall establish, implement and maintain a procedure for management of competencies of personnel involved in the certification process (see Clause 7). The procedure shall require the certification body to:

a) determine the criteria for the competence of personnel for each function in the certification process, taking into account the requirements of the schemes;

b) identify training needs and provide, as necessary, training programmes on certification processes, requirements, methodologies, activities and other relevant certification scheme requirements;

c) demonstrate that the personnel have the required competencies for the duties and responsibilities they undertake;

d) formally authorize personnel for functions in the certification process;

e) monitor the performance of the personnel."

In several private certification schemes, the criteria for auditor and inspector competence are defined very detailed, though there is not much room for a specific or additional determination of criteria by each CB. As described before, every certification scheme defines the qualification criteria for initial approval as auditor/inspector. Training needs are also defined by the private certification schemes themselves; not by the CB. The CBs can only increase the training need above the requirements of the scheme owner, not below. Nevertheless, this often does not happen in practice, thus the detailed requirement approach of the scheme owner undermining the flexible approach of the competence management required by ISO 17065.

The research showed that more established private certification schemes, which are also widespread on the market (e.g. BRC, IFS, GLOBALG.A.P.), have more detailed and stricter initial

qualification criteria as well as training requirements for auditors than less established or younger ones (e.g. REDcert). These criteria and requirements were deepened and tightened with every new version of the standards / guidelines based on the experience with auditor qualification throughout the years.

But a very detailed approach to auditors and inspectors initial qualification, working experience and training has also disadvantages. Naturally, the entry knowledge level of new auditors and inspectors is quite different. By setting detailed requirements, a flexible approach of the certification body to eliminate these differences is not encouraged.

The basic criteria for the initial qualification of the auditors are comparable in all presented schemes. They include basic education, work experience, auditor skills and audit experience – but the level to fulfil the single requirements is varying among the systems. In almost every scheme, training on ISO 19011 is required. The duration is varying (e.g. 3 days for REDcert, 5 days for IFS). An exception is the MSC scheme, where only the CAB Lead auditor (the mentor of all other MSC auditors in a CB) has to complete an auditor course. As basic education mostly specific university studies or vocational training in the respective area (e.g. food, feed, sustainability) is requested. Furthermore, work experience in the sector (e.g. meat, milk, farm level, processing level) the future auditor/inspector wants to work in is a prerequisite for the application as auditor/inspector.

Some private programs request to pass an initial online training before approval as auditor/inspector, which is helpful to communicate the basic structure, rules and requirements of the specific certification program. To ensure that all new auditors are on the same level of knowledge these online trainings are a useful element in training concepts.

Several private certification schemes use a combination of CB-In-house trainings organized by the CB and mandatory information sessions or calibration trainings provided by the scheme owner itself (online as well as physical attendance). Trainings from both sides are useful, as it is important for inspectors to get updated information about the view of the scheme owner presented directly by the scheme owner on the one hand. On the other they need to get trained on the procedures and application of system requirements by the CB. The auditors/inspectors have to complete these trainings in a defined frequency (mainly once a year). Additional trainings are often required when new versions of standards/guidelines are published.

For the monitoring of auditors and inspectors, witness audits are the element which is widely used. It allows the CB to evaluate the auditing techniques and methods of their auditors/inspectors and the compliance of their assessment with the scheme as well as it gives room for continuous improvement for every auditor. Additionally, witness audits are also performed by the scheme owner as it is requested by the accreditation norm.

Shortly summarized the following elements are part of almost every training concept by private certification schemes for already approved auditors/inspectors, the

- regular training by the certification body (content and methodology in the responsibility of the CB)
- regular information by the scheme owner (online or face to face)
- exams (online exams as well as exams with physical attendance; content: multiple choice

tests, case studies)

- witness audits (observation and evaluation of the auditor's performance on-site during an audit by the CB or/and the system owner)
- on-going audit participation (defined number of performed audits for a specific time frame)

Several certification schemes use a Train-the-Trainer concept, in which one person is specifically trained by the scheme owner and then acts as the trainer and mentor for the other auditors/inspectors in the CB. This element is used for example by IFS and GLOBALG.A.P., which are widespread and well established systems. Because they are already working with the concept for a longer time, it can be considered as a useful method in the on-going auditor training and qualification.

None of the private certification schemes analysed has a particular training component to train auditors and inspectors how to deal with severe irregularities and fraud.

Finally, table 1 shows an overview of relevant elements in auditor training programs of private certification schemes. Additionally to the schemes presented above the "Programme for the Endorsement of Forest Certification Schemes (PEFC)" and the "Forest Stewardship Council (FSC)" are included in the overview.

Table 1: Overview of relevant elements in auditor training program of private certification schemes (in alphabetical order)

	BRC	FSC	GG	GMP+	IFS	MSC	PEFC	QS	REDcert	UTZ
Training by CB (frequency, methodology to be chosen by CB but mainly face-to-face trainings required)	Yes, annually in-house training for 1 day	No specific requirements	Yes, annually in-house training organized by CB (if auditor works for several CBs, he only needs to attend one), physical attendance	Yes, every auditor hast to attend 8 hours for each approved scope with a maximum of 32 hours a year. (equivalent scopes have been formulated for which exemptions are possible), physical attendance	Yes, IFS-in-house training, organized by CB for 2 days/ year, physical attendance	Not required by the MSC certification requirements But CAB lead auditor needs to train other auditors in the CAB, no frequency determined	No specific requirements	Internal training courses – prior to initial training (introduction into the QS scheme) Internal specific training courses – annually (exchange of experience, harmonization of auditing), physical attendance	Inspectors have to take part in a training annually either by REDcert or by the CB (physical attendance)	Required for Code of Conduct auditors, can be replaced by completing a training by UTZ certified
Trainer in CB	CB must nominate a person for contact with BRC. This person has to visit a training in London before training the auditors in the CB	No specific requirements for a trainer in the CB	CB in-house trainer (needs to participate at the GLOBAL-G.A.P. 'CB In-house Trainer Training' and pass the related exam for the relevant version and sub-scope)	No specific requirements for the trainer in the CB	approved IFS Train-the-Trainer, who has visited a Train-the-trainer course organized by the IFS	CAB Lead auditor with ISO 19011 training as mentor for all other MSC auditors in the CAB	No specific requirements for a trainer in the CB	No specific requirements for the trainer in the CB	Trainer or "multiplicator" has to attend a training by REDcert before training the own auditors	For Code of Conduct auditors: the Lead Auditor is responsible to train the auditors (alternatively the auditors can attend an UTZ training)

	BRC	FSC	GG	GMP+	IFS	MSC	PEFC	QS	REDcert	UTZ
Training by scheme owner (metho-dology, frequency, content)	Yes, for new auditors as well as approved BRC auditors in case of new versions of the standard; followed by an exam (physical attendance, around 2-3 days)	No, training only by CB	Yes, online trainings required for every standard/ module, the auditor wants to work in (for initial approval in the relevant scope, incl. exam) Mandatory online training when a new version of the standards is published (within 3 months after publication, including exam); trainings and exams in the language of the auditor Additional training and exam for Option 2 auditors (physical attendance)	No, training only by CB	Yes, mandatory calibration training for IFS Food auditors once every two years, (views of the IFS as well as case studies, harmonization of auditors), physical attendance Mandatory training for auditors by IFS, when new versions of standards are published (about the new content), physical attendance Mandatory trainings for auditors for other IFS standards besides IFS food (for initial application as well as for when new versions of the standard are published, physical attendance	Yes, online trainings, mandatory once every three years as well as an annually module for updates (including exams) Different modules for different personnel in the MSC scheme (CoC auditors, Fishery team members, fishery team leader, program manager in the CB)	No, training only by CB.	Yes, initial training for auditors prior to QS approval including a test, physical attendance, as well as an annual stage-specific training for auditors by QS including a test for every approved stage (physical attendance)	Inspectors have to take part in a training annually either by REDcert or by the CB (physical attendance)	Yes, depending on the role in the certification scheme (lead auditor, auditor) and certification scope (Code of conduct, chain of custody) *Code of Conduct Lead auditors*: Successful completion of E-learning course or webinar for UTZ Certified CBs. *Auditors:* training on the UTZ Certified Code of Conduct, given by UTZ Certified or by the lead auditor within the CB, physical attendance *Chain of custody Lead auditors:* attendance sometimes required (not generally) *Auditors:* not required

	BRC	FSC	GG	GMP+	IFS	MSC	PEFC	QS	REDcert	UTZ
Costs for training by scheme owner	Yes, around 1.000 £ (+VAT)	-	250 € per auditor per training day 150 € per auditor per online training	-	Yes, calibration training 1.250 € (+VAT), training for new standard versions cheaper	No costs for online training	-	90 €/person and training (+ VAT)	-	No costs for online training
Additional trainings / education offered by scheme owner	BRC Academy: courses for all interested parties, topics are related to the different standards as well as auditing techniques and HACCP (with costs) Online trainings for staff in the CBs (not for auditors)	None	GLOBAL G.A.P. Academy: public workshops, private workshops, CB training (with costs)	GMP+ Academy, different courses about Feed Safety Management on all levels and of achieving maximum safety in the feed chain (e.g. HACCP, legislation, GMP+ scheme) for all interested persons (with costs)	IFS Academy: courses for all interested persons on auditing the IFS scheme, food defense, HACCP and other relevant topics (with costs)	None	None	None	None	None
Exams	Yes, after each training for new versions of a standard	No exams	Yes, exams after every online training for initial approval or online trainings on new versions of standards Additional exam as part of the training for Option 2 auditors	Yes, initial exam as well as the periodic exams for maintaining scope approval (depending on the results, approval of the auditor is prolonged for up to 3 years),	Yes, but only for the initial approval as well as for tech scope extension in IFS Food	Yes, every online training, also the annually updates module, is followed by an exam, multiple choice (online)	No exams	Yes, after initial training as well as annual stage-specific training by QS (multiple choice and open questions)	No exams	Yes, online exams at the end of the every online training module

	BRC	FSC	GG	GMP+	IFS	MSC	PEFC	QS	REDcert	UTZ
CB meetings organized by scheme owner	Yes, annually (if a CB doesn't participate, less points in the KPI-assessment of the CB by BRC)	Yes, for information exchange	Yes, annually, GLOBALG.A.P. Scheme manager (contact person at the CB) has to attend the annual scheme manager (update) meeting	Yes, harmonization meetings twice a year (participation mandatory for each CB)	Yes, CB conference annually (participation mandatory for each CB)	Yes, annually, (participation not mandatory)	Yes, mandatory annual calibration meetings	Yes, twice a year (participation not mandatory)	Yes, annually	Yes, annually
Newsletter by scheme owner	Yes, for all interested parties (events, business services, BRC Academy, global standards updates, BRC publications)	Yes, for all interested parties,	Yes, for all interested parties (news and clarifications of the certification scheme, events, benchmarking…)	Yes (news of the certification schemes, meetings, trainings, information about suspended companies)	Yes, general newsletter for all interested parties as well as a special newsletter for CBs (with information on certification procedures, auditor training dates)	Yes, general newsletter for all interested parties (including news in the scheme, new certified companies, dates and figures about the MSC scheme) as well as a special newsletter for CBs (with information on certification procedures, auditor training dates)	Yes, for all interested parties	Yes, for all interested parties (news and clarifications of the certification scheme, events, new documents) as well as newsletter for CBs and auditors and newsletter for scheme participants	Yes, for all interested parties (news and clarifications of the certification scheme, events, new documents) as well as newsletter only for CBs (news and clarifications of the certification scheme, new documents)	Yes, for all interested parties (news and clarifications of the certification scheme, events, new documents)
Audit experience (Audits per year for maintaining qualifi-cation)	5 audits per year	None required	5 inspections/ audits or 10 inspection/au dit days a year	5 audits per year per standard / scope for which the auditor has been approved	10 audits in 2 years From 01.01.2014: 5 audits per year	3 audits every 18 months	At least 4 man-days annually	20 audits in 2 years	None required	None required

	BRC	FSC	GG	GMP+	IFS	MSC	PEFC	QS	REDcert	UTZ
Witness audits by CB	Yes, required (once every two years for each auditor)	Yes, required (at least every three years for each auditor)	Yes, required (once every four years for each auditor)	Not required by GMP+, but required once every 3 years for each auditor because of the accreditation against ISO 45011	Yes, required (once in two years for each auditor by another IFS auditor)	Yes, required (once every three years for each auditor by another MSC Lead auditor)	No specific requirements	Yes, required once every 3 years because of the accreditation against ISO 45011 but not mentioned in the standard.	Not by the CB but by the responsible German authority (Federal Office for Agriculture and Food, BLE)	Not required

Certification schemes in the table: BRC: British Retail Consortium, FSC: Forest Stewardship Council, GG: GLOBALG.A.P., GMP+: Good Manufacturing Practice+, IFS: International Featured Standard, MSC: Marine Stewardship Council, PEFC: Programme for the Endorsement of Forest Certification Schemes, REDcert: Renewable Energy Directive certification, QS: Qualität und Sicherheit, UTZ: UTZ certified

CB: certification body, KPI: key performance indicators, CAB: conformity assessment body, CoC: chain of custody (MSC programme)

4   Summary

In the European Union the official food and feed control is based on "Regulation (EC) 882/2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules". Article 6 defines the requirements for the staff performing official controls. These requirements are deepened and specified in specific regulations in the member states according to qualification as well as training of the food and feed inspectors.

Additionally, several private certification schemes for food and feed exist in Europe, which have their own training concept and qualification requirements for auditors and inspectors. The basic principles are comparable in the private certification schemes, especially for the schemes which are accredited against EN 45011 (ISO/IEC Guide 65, in the future ISO/IEC 17065: Conformity assessment — Requirements for bodies certifying products, processes and services). The ISO/IEC 17065 states in chapter 6.1.2:

"The certification body shall establish, implement and maintain a procedure for management of competencies of personnel involved in the certification process (see Clause 7). The procedure shall require the certification body to:

  a. determine the criteria for the competence of personnel for each function in the certification process, taking into account the requirements of the schemes;

  b. identify training needs and provide, as necessary, training programs on certification processes, requirements, methodologies, activities and other relevant certification scheme requirements;

  c. demonstrate that the personnel have the required competencies for the duties and responsibilities they undertake;

  d. formally authorize personnel for functions in the certification process;

  e. monitor the performance of the personnel."

Several elements for the management of competence of the inspection/audit personnel have been identified in the training and qualification of official food inspectors as well as auditors and inspectors in private certification schemes. These elements are used for both, the official as well as private sector, with different intensity. Common elements are:

  - determined initial qualification criteria as well as an initial training/education before approval as auditor/inspector

  - online trainings (including exams) before initial qualification to ensure basic knowledge of the certification scheme (implemented by 3 of the 10 presented schemes)

  - online trainings for updates in the certification schemes in a regular frequency (e.g. annually) (implemented by 3 of the 10 presented schemes)

  - face to face meetings with presentations of current themes to keep auditors and inspectors up to date with current events

  - face to face meetings with case studies and auditor/inspector group work for discussion

and harmonization of auditing and inspection techniques and assessment

- witness audits for each auditor/inspector to show improvement possibilities and also check compliance with the regulations/standards as well as with the procedures of the certification body (monitoring) (implemented by 5 of the presented 10 schemes)

- regular meetings with all approved CBs in a certification scheme for information and harmonization (organised by the scheme owner, implemented by 9 of the presented 10 schemes)

An additional element which is widely used in private certification schemes are email newsletters (used by all presented schemes). General free newsletters are sent to all interested parties, mostly you can register on the website for the newsletter. Furthermore, specific newsletters and information are sent by the scheme owner to the certification bodies to inform them regularly about changes and clarifications of the certification schemes, the use of specific databases and checklists as well as current events and/or scandals in the relevant sector. Further newsletters are sent to scheme participants.

Trainings by the CB are mainly face-to-face with presentations followed by discussions and exchange of experience. They consist of a presentation of news in the scheme, presentation of changes in procedures of the CB, open discussion of current cases and exchange of experience. Sometimes an external speaker is invited for trainings (e.g. scheme owner) to present a specific view of relevant topics. In the trainings by the scheme owners, mainly the view of the scheme owner as well as the assessment of scheme requirements in audits is presented and discussed.

5 Recommendations (Useful elements for organic inspectors)

It has to be differentiated between the initial qualification and approval for new inspectors as well as the on-going training and maintaining of the competence of already approved inspectors (experienced inspectors) because both groups have different competence targets.

The qualification targets in the training of **new organic inspectors** are:

1. getting to know the EU legislation on organic farming, if relevant other private organic certification schemes and the corresponding certification scheme of the control body

2. getting to know the content and intelligent implementation of the inspection toolbox (for on-site visits of companies/farmers, documentation review, sampling, and analysis)

3. getting to know relevant non-conformity and irregularity scenarios as well as fraud cases

4. exploring audit techniques (communication techniques, assessment and evaluation, documentation of situations/facts and non-conformities)

First of all, new inspectors must prove that they have the professional and technical knowledge of the sector they want to work in. The basic education (university studies, vocational training), work experience and/or audit experience for other certification schemes in the same sector can be taken into account as fulfillment criteria for this requirement.

New inspectors need a basic understanding for the certification schemes (s)he should work in, several private certification schemes and some authorities use online-trainings to practical

impart formal knowledge of the systems. Inspectors can work through the different certification requirements online, independent of time and place, and finish their trainings with online tests if required. At the subsequent face-to-face training by a control body, preferably implemented as tutorial dialogue, they can be trained in relevant irregularities and an intelligent use of the inspection toolbox by using group works and other active learning tools.

Furthermore; new inspectors have to understand their role and tasks as an inspector. This can be achieved for example by including elements of DIN EN ISO 19011 to face-to-face trainings either by the control body itself, by external trainers or by commercial organizations. This training component deals with basic inspection/audit skills and the process of conducting an audit, including the management of an audit program, audit activities/procedure, skills and knowledge of auditors. For the audit experience, new inspectors should at first accompany experienced inspectors in a defined number of inspections on-site to get a feeling for auditing organic products. After that they should conduct a specific number of inspections under the supervision of an experienced inspector before performing organic inspections themselves.

Already approved, **experienced organic inspectors** have other qualification targets to fulfil. These are:

1. updates of EU regulations on organic farming, if relevant other private organic certification schemes and the corresponding certification scheme of the control body

2. implementation and expansion of the skills of the inspection toolbox (for on-site visit of companies/farmers, documentation review, sampling, and analysis)

3. extension of knowledge on relevant non-conformity and irregularity scenarios as well as fraud cases

4. in-depth use of audit techniques (communication techniques, assessment and evaluation, documentation of situations/facts and non-conformities)

Experienced inspectors have to maintain their qualification by attending trainings regularly. These can be organized by the control body. Additional modular trainings on special topics should be implemented; those could be carried out by the control bodies as well as by specialized organizations. The trainings should be based on the results of the performance review of the inspectors as required by ISO 17065. Trainings in the control body shall contain several elements: presentation of updates of the respective certification scheme or norm, working out of their relevance in practice (working groups), finding solution of case studies, exchange of experience as well as audit simulations. By this, inspection techniques and assessments are harmonized among different inspectors. Furthermore, the application of the certification scheme to different companies shall be worked out (e.g. small and medium vs. large enterprises, high risk products vs. low risk products), focused on possible irregularities.

Another point for maintaining their qualification is the on-going audit/inspection participation, which is ensured by a minimum number of required audits/inspections in a defined time frame (e.g. BRC: 5 audits/year). Monitoring of the inspectors' competence can be achieved by conducting witness audits, in which an experienced inspector of the control body or of a competent authority accompanies the inspector in an audit and assesses his performance. Additional elements of a performance review could be a review of the inspection reports

delivered by the inspector to the control body. The results of such performance reviews serve to identify the particular training needs and to define the contents of the forthcoming trainings.

A simple but quite helpful element is the distribution of certification scheme news by the scheme owner via electronic media (Email newsletter, blogs, social networks…). By this, inspectors and auditors are always up-to-date concerning current issues in the respective certification scheme.

Regular meetings of all control bodies for organic inspection should also be considered for the future train-the-trainer concept for organic inspectors. This allows the control bodies to exchange their experience with inspections, discuss current events or case studies as well as determine specific rules or requirements for inspections.

To ensure the methodical and didactical competence and qualification of the trainer in the control bodies a train-the-trainer concept as used by the Academy for Public Health in Germany can be a useful addition.

In general, it should be evaluated for the planned train-the-trainer concept, if some of these elements are already used in the training for organic inspectors by the project partners and if they have shown to be helpful.

References

Germany (most websites only in German)

Akademie für öffentliches Gesundheitswesen (Düsseldorf): http://www.akademie-oegw.de (vocational training as food inspector: http://www.akademie-oegw.de/index.php?id=23; Further trainings http://www.akademie-oegw.de/index.php?id=81)

Bavarian State Office for health and food safety (Bayerisches Landesamt für Gesundheit und Lebensmittelsicherheit), Vocational training as food inspector in Bavaria/Germany: http://www.lgl.bayern.de/aus_fort_weiterbildung/ausbildung/lehrgaenge/lebensmittelkontrolleure.htm

Examples for further trainings of food inspectors in the federal state North-Rhine Westphalia (Germany): http://www.lebensmittelkontrolle-nrw.de/html/116_1/fortbildungen.htm

Federal Office of Consumer Protection and Food Safety (Bundesamt für Verbraucherschutz und Lebensmittelsicherheit, BVL): http://www.bvl.bund.de/EN/Home/homepage_node.html

National Association for food Inspectors, Germany (Bundesverband der Lebensmittelkontrolleure e.V.): http://www.lebensmittelkontrolle.de (Education as food inspector in Germany: http://www.lebensmittelkontrolle.de/stellenangebote/ausbildung1)

State office for nature, environment and consumer protection NRW (Landesamt für Natur, Umwelt und Verbraucherschutz Nordrhein-Westfalen; LANUV): http://www.lanuv.nrw.de ; Lebensmittelspezialitäten - Geschützte Produkte aus Nordrhein-Westfalen (food specialties – protected product from NRW): http://www.lanuv.nrw.de/verbraucher/nahrungsmittel/regionale_erzeugnisse/spezialitaeten.htm

German Regulations

- "*Verordnung über die fachlichen Anforderungen gemäß § 42 Abs. 1 Satz 2 Nr. 3 Buchstabe b des Lebensmittel- und Futtermittelgesetzbuches an die in der Überwachung tätigen Lebensmittelkontrolleure" (Lebensmittelkontrolleur-Verordnung – LkonV)* (Regulation on the requirements in accordance with § 42 Section 2 of the Food and Feed Code to food inspectors - food inspector regulation).

- „Verordnung über die fachlichen Anforderungen an die in der Futtermittelüberwachung tätigen Kontrolleure (Futtermittelkontrolleur-Verordnung - FuttMKontrV)" (Regulation on professional requirements for inspectors working in the feed control).

- Regulation on the training and examination for the career of the middle food inspection service; (Verordnung über die Ausbildung und Prüfung für die Laufbahn des mittleren Lebensmittelkontrolldienstes - APOmD LK) in Berlin

Austria (most websites only in German)

Austrian Agency for health and food security (AGES, Österreichische Agentur für Gesundheit und Ernährungssicherheit GmbH: http://www.ages.at

Association for food control Upper Austria (Verein der Lebensmittelaufsicht Oberösterreich): http://www.lebensmittelaufsicht-oberoesterreich.org/ (Vocational training as food inspector: http://www.lebensmittelaufsicht-oberoesterreich.org/lebensmittelaufsicht/ausbildung-zum-kontrolleur)

Association of the austrian food inspection and consumer protection (Verband der Österreichischen Lebensmittelaufsicht und des Konsumentenschutzes; VOLK): http://www.lebensmittelinspektion.com

The Ministry of Life (Lebensministerium): http://www.lebensministerium.at (feed law + control:

http://www.lebensministerium.at/land/produktion-maerkte/betriebsmittel-rechtsinfo/futtermittel.html)

Federal Office for Food Safety (Bundesamt für Ernährungssicherheit, BAES): http://www.baes.gv.at

Austrian Regulations

- Food Safety and Consumer Protection Act (Lebensmittelsicherheits- und Verbraucherschutzgesetz, LMSVG)

- LMSVG - Regulation on LMSVG-training and continuing education (Verordnung der Bundesminister für Gesundheit über die Aus- und Weiterbildung von Aufsichtsorganen und Gutachtern in der Agentur und in den Untersuchungsanstalten der Länder gemäß dem LMSVG – LMSVG- Aus- und Weiterbildungsverordnung)

EU

EU agricultural product quality policy: http://ec.europa.eu/agriculture/quality/index_en.htm

(Information on Protected Designation of Origin (PDO), Protected Geographical Indication (PGI) and Traditional Speciality Guaranteed (TSG))

EN 45011: General requirements for bodies operating product certification systems (ISO/IEC Guide 65:1996); Trilingual version EN 45011:1998

EU Regulations

COUNCIL REGULATION (EC) No 509/2006 of 20 March 2006 on agricultural products and foodstuffs as traditional specialities guaranteed *(invalid)*

COUNCIL REGULATION (EC) No 510/2006 of 20 March 2006 on the protection of geographical indications and designations of origin for agricultural products and foodstuffs *(invalid)*

COUNCIL REGULATION (EC) No. 834/2007 of 28 June 2007on organic production and labelling of organic products and repealing Regulation (EEC) No 2092/91

REGULATION (EC) No 882/2004 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 29 April 2004 on official controls performed to ensure the verification of compliance with feed and food law, animal health and animal welfare rules

REGULATION (EU) No 1151/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 21 November 2012 on quality schemes for agricultural products and foodstuffs

DOCUMENTS OF PRIVATE CERTIFICATION SCHEMES

BRC (http://www.brcglobalstandards.com)

F015: BRC Global Standard for Food Safety Issue 6. Guidelines on satisfying Auditor Competence for the BRC Global Standard for Food Safety

BRC016 - Application and registration process for Certification Bodies with the BRC Global Standards

BRC004: REQUIREMENTS FOR CERTIFICATION BODIES OFFERING CERTIFICATION AGAINST THE CRITERIA OF THE BRC GLOBAL STANDARDS

BRC Global Standard for Food Safety, Version 6, July 2011

(available only for sale)

GLOBALG.A.P. (http://www.globalgap.org)

GLOBALG.A.P. General Regulations. Part III - Certification Body and Accreditation Rules, English Version 4.0-Edition 4.0-2, valid from March 2013, available at: http://www.globalgap.org/uk_en/documents

GMP+ https://www.gmpplus.org/

GMP+ C1 Approval Requirements and Procedure for Certification Bodies (version 01-03-2013), available at https://www.gmpplus.org/pagina/2281/c-documents.aspx

FSC (https://ic.fsc.org/)

IFS (http://www.ifs-certification.com)

IFS Food Standard, Version 6, available at http://www.ifs-certification.com/index.php/en/ifs-certified-companies-en/document-download/download-standards

MSC (http://www.msc.org)

MSC Certification Requirements V1.3, issued 14 January 2013, available at http://www.msc.org/documents/scheme-documents/msc-scheme-requirements

PEFC (http://www.pefc.org/)

QS. (http://www.q-s.de)

QS Guideline Certification (Version 01.01.2013rev02, rev02 from 19.03.2013), available at: http://www.q-s.de/dc_certification.html

REDcert (http://www.redcert.org)

REDcert. Requirements for neutral inspections, 15. February 2012, available at http://www.redcert.org/index.php?option=com_content&view=article&id=231&Itemid=91&lang=en

UTZ certified (https://www.utzcertified.org/)

UTZ Certified Certification Protocol, Version 3.0 September 2012, available at http://www.utzcertified-trainingcenter.com