High level conference on FOOD AUTHENTICITY AND INTEGRITY

24 June 2016, Brussels - Charlemagne Building Jenkins Room, Rue de la Loi 170



REPORT









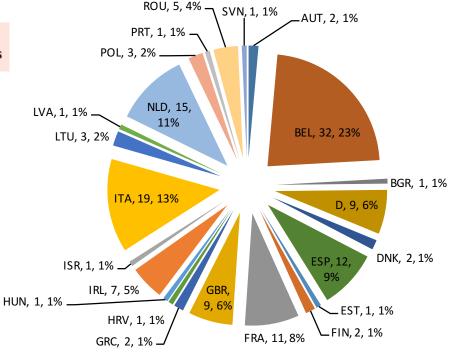
Report

More than 130 participants from competent authorities, official laboratories, the European Commission, food businesses including trading companies and consumers' organisations, attended the high Level Conference on Food Authenticity and Integrity organised on 24th June 2016 by CELCAA-UECBV and Euro Coop under the patronage of DG SANTE.

The representatives met and discussed how private operators and public authorities can cooperate to promote and guarantee food authenticity and integrity.

This conference was organised as a follow-up to the 2012 Conference on 'managing the growing challenge of food crime' and of the 2014 Conference organised by the Italian Presidency on 'food fraud' with the aim to assess the progress made since 2012 including initiatives undertaken by food business operators.







Opening speeches

Mr B. Van Goethem – Director of the Directorate "crisis management in food, animals, and plants", DG SANTE, European Commission

Mr Prats Monné, the Director-General of DG SANTE was represented by Mr Van Goethem.

- EU Citizens are used to choose their food according to convenience, quality and competitive prices. Fraudsters are becoming increasingly inventive in deceptive tactics to take advantage of the sophisticated nature of the food chain.
- The EU food safety system has proven to be effective in responding to crises affecting both animal and public health. Thus, it is regarded as a global benchmark. For instance, Chinese
 - authorities looked at the EU when they had to revise their food legislation after the melamine scandal.



- » However, despite its solid reputation, major cases of food fraud are still able to jeopardize it and cause some serious issues for companies losing money, and consumers losing faith. e.g. "Gatto con gli Stivali" case of 2011, where 703,000 tons of falsely-labelled products were sold as organic, caused an estimated financial damage of 220 million euro.
- » The EC has responded to the horse meat scandal by setting up a dedicated network of contact points, the "Food Fraud Network" (FFN), in which also DG Santé is part of. The FFN is equipped with an IT system, the Administrative Assistance and Cooperation system (AAC), that enables a swift and streamlined exchange of information between competent authorities in Member States.
- » Because of its complexity and worldwide reach, tackling food fraud requires a collaborative effort between industry and government agencies. Preparedness at all levels and

coordination are essentials. Many companies such as EUROCOOP have already implemented ways to counter global fraud threats.

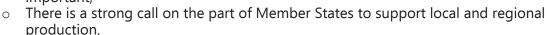
» Mr Van Goethem concluded by thanking the organizers of this conference for organizing such an event which is a way of cooperating between research institutes, ministries, laboratories. He emphasized that it is important to build trust through trust building activities such as this one.

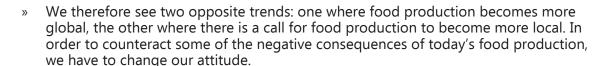
Read the speech

Mr H. Hoogeveen

Director General Agro Ministry of Economic Affairs; NL Presidency of the EU Council of Ministers

- » We have seen several developments in the food and agriculture sector in the past few years:
 - Agricultural and food supplies become more and more global and investments in this sector have increased;
 - Consumer demands on producers have increased;
 - The environmental impact of food production has become more important;





- » Consumers expect food to be authentic and safe. Every step in the supply chain bears an intrinsic opportunity for the delivery of non-authentic and/or unsafe foodstuffs.
- » Is the answer to become even stricter when it comes to existing regulation / to legislate more? Not according to Mr. Hoogeveen. The change that we are looking for is in how every link of the food chain behaves, consumers included. In order to change the system, we need to change the available knowledge in every step of the food chain.
- » On behalf of the Dutch Presidency, Mr Hoogeveen gave some recommendations on how to guarantee food authenticity and integrity in the food chain:
 - Absolute transparency regarding products, their costs, how they were made and so on is crucial;
 - o Address the information asymmetry that consumers are subject to;
 - Give a fair price to farmers;
 - Self-regulation is necessary;
 - The private sector must take responsibility in ensuring fair trading practices;
 - o Provide products with a brand that is easily recognized by consumers;
 - Put a higher emphasis on Quality ensuring systems.



Mr M. Bongiovanni President of Euro Coop

- » Consumers do not forget when they are being fooled. This has an impact on their trust in the food supply chain. Therefore, consumers should be adequately informed.
- » Mr Bongiovanni then introduced Euro Coop. Established in 1957, Euro Coop represents consumer co-operatives at the European level. Euro Coop has 19 members, principally focusing on retail activities, located in 36000 shops, employing about 500.000 people,



- and counts 32 million consumer-members. The annual turnover is of 76 billion euros. Guaranteeing food authenticity and integrity in the food chain is not only in the private interest of consumer co-operatives, but it is also part of their policies on social responsibilities and consumer information.
- » Historically, consumer co-operatives have put a high emphasis on food authenticity and integrity. In 1968 already, Euro Coop Secretary General Semler Collery called on the necessity to harmonize legislation, especially on foodstuffs, in view of the need to further protect consumers. By taking a preventative approach with the guarantee of food authenticity and integrity, consumer co-operatives were faced with less negative consequences compared to other FBOs in the aftermath of the BSE crisis.
- » Science knows no boundaries, but technology can produce new forms of monopoly and economic power.
- » In the past years, nutrition has become more and more important as well as an increasingly global issue. At the same time, the theme of "local" products and culinary excellence is prominent.
- » Consumers are now increasingly concerned about where their food comes from, as well as other issues such as TTIP.
- » Best practices carried out by consumer co-operatives in Europe in order to guarantee food authenticity and integrity:
 - Top notch food chain traceability. The more controls and inspections are conducted in a transparent matter, the more potential negative consequences will be contained;
 - o Enrich these policies with innovative practices, e.g. via using technology;
 - For co-operatives, own brand products play a crucial role, as they may for instance inform consumers of the origin of all the main ingredients used in the product;
 - o Educational activities, e.g. in schools.

Read the speech



Session I - Targeting counterfeit and substandard foodstuffs

Mr G. Sincovich Europol - The results of Operation OPSON

- » Operation OPSON is an initiative focusing on the global food supply chain that occurs every year since 2010. Its main objectives are to (1) dismantle organized crime groups involved in this area, (2) raise awareness about the phenomenon, (3) enhancing cooperation between involved stakeholders, e.g. inter-agency cooperation and (4) the protection of public health.
- » Any infringement is considered, e.g. counterfeit foods, substitution, and adulteration.



- » Operation OPSON is included in the 2014-2017 EU Policy Cycle which highlights that counterfeiting is a major threat in the EU and promotes a multi-disciplinary approach.
- » 57 countries currently participate in operation OPSON, both EU and non-EU. This is a considerable increase from 2010, when only 10 countries took part in this operation. Also, the private sector is on board and provides intelligence as well as assistance during the activity itself.
- » In 2015, the largest ever seizure was made compared to the previous years. Results are currently preliminary but an estimated 10200 of unlawful products were seized in the EU. Examples of fraudulent activities are for instance olives coloured with copper sulfate to give them an appealing green colour.



Session II - EU and Member States Policy

Mr E. Marin

Deputy Head of Unit DG SANTE, European Commission Action plan and outcomes of the anti-fraud team work

- » There is no harmonized definition of food fraud at the European level. Therefore, we use a working definition that defines "food fraud" by using 4 criteria:
 - Violation of EU food law
 - o Intention
 - o Economic gain
 - Deception of customers (and consumers)
- » The European Commission became very conscious of the risks of food fraud during
 - and following the horse meat scandal. Following this EU-wide fraud, the EC established inter alia the Food Fraud Network (FFN) which enables Member States to exchange information in a rapid way. We also collaborate with third countries but it is more difficult. The FFN counts more than 200 exchanged cases to date. The EC also launched two coordinated control plans (honey and fish) in order to detect fraudulent practices occurring in these sectors. Trainings to EC staff and Member State representatives dealing with fraudulent practices and administrative assistance and cooperation are organized five times per year.
- » The revision of the Official Controls legislation will also play an important role in preventing fraudulent practices given that the scope of this legislation has been widened to include animal health and welfare, and that penalties will be increased so as to be a true deterrent for potential fraudsters.
- » Collaboration within and between Member States is absolutely crucial. This also includes inter-agency cooperation and a continuous exchange of knowledge and best practices.



- » An example of case exchanged via the Food Fraud Network is that of undeclared peanuts in ground roasted hazelnuts coming from Georgia. This is not only a case of fraud but also a case of food safety for those people that are allergic to peanuts. In this case there was a peanut contamination of 22%, with an estimated gain of 400 dollars per ton. The EC services contacted the Georgian authorities and informed them about this issue. All batches are now currently inspected by Georgian authorities.
- » Mr Marin concluded by reminding that despite these cases, food available in Europe has never been so safe.

<u>PPT</u>

Mr H. Paul

Inspector General Netherlands Food and Consumer Product Safety Authority (NVWA) - The Dutch experience

- » In the EU we can be proud of the high quality food and good legislation.
- » In the NL, legislation regarding food safety is divided in two ministries: the Ministry of health, welfare and sports and the Ministry of Economic affairs. The NVWA employs about 2400 people, among which 120 inspectors that inspect the whole food supply chain.



- » Many types of fraud exist which may cover several legislative areas and different foodstuffs, e.g. falsely labelled free range eggs, illegal import of meat from China. The broad nature of fraudulent activities also makes it difficult to define exactly what "food fraud" is.
- » In the NL food fraud was seen for years as solely an economic problem. Recently this approach has changed in the sense that if the origin of a foodstuff is not known, it is automatically considered as unsafe.
- » Although in support of private schemes, the fact that a certain company complies by these schemes does not mean that they will not take part in fraudulent activities. Everyone in the chain should take their own responsibilities in order to end up with an authentic and safe product.
- » Three big changes are required in order to guarantee food integrity and authenticity:
 - Audits should be unannounced so that FBOs do not have the time to prepare and hide any potential evidence of fraudulent activity;
 - Being caught red-handed should represent an immediate stop of FBO activities, as well as an immediate notification to the competent authorities
- » Legislative requirements are sufficient. However, the problem of guaranteeing food authenticity and integrity is not yet solved. Possible solutions to this issue could be to increase liability, improve private scheme, and be harsh so that punishments become a deterrent.
- » We have to continue cooperating between private industries and governmental entities. Also, it seems that foodstuffs for which fraudulent practices were involved are never thrown away and re-appear somewhere else. Therefore, these products should be destroyed when detected (e.g. after a recall).

Mr A. Morling Director Food Fraud Agency (UK) - The British experience

- » Food is vulnerable to crimes that also impact other areas of trade. Because food crime is a new criminal typology, there is a need for leadership, a proactive approach, as well as severe punishments in this area.
- » The problem is not EU legislation, but the fact that sometimes competent authorities do not use it. This was the case in the UK, but we have recently started to make use of existing legislation.

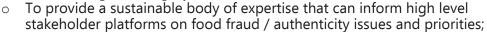


- » There is an increasing trend for the search term "fraud" on google globally (in the UK as well, but the trend is less steep). The Food Fraud Agency uses a working definition of food crime, i.e. serious dishonesty that impacts detrimentally on either the safety or the authenticity of food.
- » We do not have a full understanding of the threat from food crime nor of organized crime groups that work in this area. In any case, a zero tolerance policy should be applied.
- » We can learn from history. Cases of fraud that occurred in the past can help us in the prevention of food crime. In order for this approach to be more effective, we need to inter alia incentivize informers, form a dedicated law enforcement response, and create algorithms which will help detect future cases (early warning).
- » The Food Fraud Agency currently uses the following continuous learning approach: target discovery → case development → intervention → lessons learned → strategic knowledge → target discovery.
- » 3 sectors need to come together for a crime to occur. These are means, motivation, and opportunity to offend. We need to target these sectors. Indeed, a lawful FBO, if under a lot of pressure, may decide to take part in a fraudulent practice one time. This practice will be easier to repeat the second, third (and so on) time.

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Mr C. Elliott Queen's University (UK) - EU Food Integrity Project

- » Mr Elliott presented the Food Integrity Project (FIP), an initiative that is led by the Food and Environment Research Agency (FERA) in the UK, with a 12 million euro budget (of which 9 million euro of EU funding). FIP counts 50 members worldwide as well as 200 organizations. Wide participation is essential given that no single country / entity can deal with food fraud alone.
- » The objectives of this project are threefold:
 - To provide Europe with a state of the art integrated capability for detecting fraud and assuring the integrity of the food chain;



- To bridge previous research activities, assess capability gaps, commission research and inform EU future research needs.
- » The work carried out by the FIP encompasses the following areas:
 - Food fraud is global given that we import from Third Countries. We need to be aware of what happens outside of Europe;
 - o FIP works on scientific opinions that are of importance to regulators;
 - It is important to build large databases on different methodologies used to counteract fraudulent practices (i.e. the FoodIntegrity Knowledge Base), as well as fingerprinting methodologies;
 - Identify knowledge gaps;
 - Develop tools that will predict next incidents.
- » Currently more work is carried out in China in order to counteract food fraud. This is because, following the melamine scandal, the Chinese population has lost trust in their Food System. This is now one of their major political issues. Nonetheless, Chinese consumers place trust in the European Food System.
- » To conclude, Prof. Elliott reiterated how crucial collaboration and involvement are in this sector.

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Session III - Consumers' Expectations

Mr T. Gumbel Deputy Head of Unit DG SANTE, European Commission - Consumers' attitudes towards labelling

Consumer principles and expectations have to be met. In order to do so, labelling is important, as well as other factors such as price and convenience. FBOs have the primary responsibility for displaying correct information on the label, as well as for ensuring the traceability of a certain product. Regarding traceability, the European Commission is currently finalizing the REFIT of the General Food Law and preliminary results on this matter are positive.



» Do consumers understand labels? Results from different Eurobarometers show that:

It is important to build large databases on different methodologies used to counteract fraudulent practices (i.e. the FoodIntegrity Knowledge Base), as well as fingerprinting methodologies;

- 60% of consumers integret nutrition information correctly;
- o 40% of consumers find references to schemes / logos hard to understand;
- o 67% of consumers recognise quality labels / logos;
- 53-60% of consumers do not understand the date marking on food labels correctly
- » These results show that consumer understanding is good, but learning is still needed. It is also important to consider that different consumers have different economic possibilities and a variating motivation to use labels. An additional challenge is the various languages used in the EU.

Ms S. Schmidt Policy Officer for food, Euro Coop - Safeguarding food chain authenticity: The role of consumer co-operatives

Euro Coop is the European association of consumer co-operatives. Its main activities are: representing members before the EU institutions, providing members with key policy information, and exchange experiences, best-practices and knowhow between members. Consumer co-operatives distinguish themselves from other retailers given that their consumers are also their members and owners. Indeed, consumers buying at consumer co-operatives are requested to pay a certain fee to do so and in exchange have



a say in how the co-operative works, which products it buys, ecc ecc. In addition, profits made by consumer co-operatives are given back to the community, e.g. by carrying out educational programs about food in schools.

- By giving examples of initiatives taken by consumer co-operatives across Europe, certain co-op consumer expectations and trends were identified:
 An increased interest in local foods which is probably the most important development at the consumer co-operative level in the past years;
 - o Consumers want to know where their food comes from;
 - Consumers expect fairness in the supply chain;
 - Increased attention is payed to animal health and welfare, as well as the environment;
 - o Increased interest in organic products.
- » For instance, Eroski in Spain has created its own brand "Natur" which focuses on origin and flavour. This brand represents a guarantee for consumers, and rightly so because controls and inspections are carried out from the field to the store. Eroski collaborates with more than 5000 local Spanish suppliers. This brand also uses geographical indications and national quality labels.

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Session IV- The Food Authenticity/Integrity Analysis Techniques

Mr F. Ulberth JRC-IRMM, European Commission

» The Joint Research Centre (JRC) is the European Commission's in-house science service which supports EU policies with independent, evidence-based scientific and technical support. It is a networking organization given that it is located all over Europe (6 locations).

even contain 30 ingredients having different origins.

- There is a need to create hard evidence and forensic material given that (1) there are different types of fraud and (2) we are faced with a complex food supply chain where every link in the chain may result in illicit manipulations. Traceability is even more complex for composite food commodities which may
- » Key characteristics of food fraud are that there is non-compliance with food law and/or misleading the consumer, that it is done intentionally, and for reasons of financial gain.
- » Certain frauds may be more easily detectable via analytical methods than others, e.g. there are some methodologies available for GIs, but immaterial characteristics such as fair trade are less easy to detect. In order to detect different types of frauds, different analytical methodologies, or a combination of these methodologies are needed. Often times, these methodologies may not even be located in the same laboratory.

- » In order to detect potential fraudulent practices, the methodology that is commonly used is to have reference material (known) that is then used to compare unknowns. This entails the creation of a fingerprinting. An example of successful fingerprinting is that of addition of water in wine. Because there are "knowns" for this fraudulent practice, potential fraudsters know that the European Commission is watching. As a consequence, this type of fraud is not as common anymore.
- » The JRC makes use of a food fraud reporter which scans the internet and captures relevant information. This database is regularly updated.

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Mr R. Renaville – CEO, Progenus

» This presentation focused on the meat sector and its products, for which different actors in the food chain have different concerns, e.g. consumers may want to know whether they can trust what they are eating, while customers may want to know whether they can trust their suppliers.



- » There are two technical solutions to these questions. The first regards DNA detection by qPCR methods (specific), while the second relates to quantification. If DNA qualification gives a positive answer, the second step is to quantify how much illicit product is included.
- » The example of the horsemeat was used in order to illustrate an example of how to quantify a potential unwanted substance in a certain food. (1) A dilution curve is made: DNA is extracted from meat and diluted in a buffer. (2) The horse meat percentage in the unknown sample is extrapolated from this standard curve. By using the Progenus Easy-Fast method, the quantity of DNA of the species is quantified in percentage of the quantity of vertebrate DNA. An advantage of this method is that there are no false negatives.

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Session V- FBOs action plan (traceability, transparency, trust)

Ms S. Scaramagli Coop IT laboratory - Coop Italy and food fraud: a closer look at the case of extra virgin olive oil

- » Coop Italy is the national consortium of consumer cooperatives (retail company). Coop Italy gurantees the safety, performance and the authenticity of products under their own brand (more than 3000 products) which are produced by hundreds of national and international suppliers.
- » Multiple activities are carried out by Coop Italy to ensure the origin of products, as well as the monitoring of emerging risks. High emphasis is placed on fraud identification. For this purpose, Coop Italy carries out risk assessments, audits, conventional and unconventional analysis, and involves suppliers in the development of innovative methods of analysis.
- » An important tool used in fraud identification is the Coop Italy laboratory which is divided in three areas: biology, chemistry and sensorial analysis. The strategy of the laboratory shifted in the last 15 years, from a laboratory that dealt exclusively with routine analysis to a laboratory that supports the quality department in all sorts of analysis.
- » Let us have a closer look at olive oil. Different types of olive oils are sold under the "coop" brand, some are 100% Italian, some have a European-wide origin. In the case of olive oil, a chemical approach to authenticity is used. Indeed, because an aroma

characterizes a certain product, a fingerprinting of the volatile substances composing the different types of olive oils was made. Coop Italy employs an advanced gas chromatographer, also called an electronic nose to carry out this analysis. This electronic nose was bought in 2013 and a full 3 years were needed in order to collect data on samples of more than 100 olive oils of which the origin was absolutely certain and create clusters of samples having the same aromatic profile.

- » This approach can be used for other purposes, e.g. identifying the origin of coffee or determining whether the fish is frozen or fresh.
- » To conclude, Ms Scaramagli stated that laboratory analyses are not a solution to the authenticity issue, but rather a tool, and that a multidisciplinary approach should be used both in science and in research.

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Mr B. Urlings UECBV (Vion – NL) - The case study of meat

- » Vion Food is a company that slaughters pig and cattle, both for traditional products as well as organic products.
- » There are certain recurrent contemporary themes such as the importance of public health (e.g. with regards to anti-microbial resistance), food safety (e.g. microbiological contamination), the environment, ethics, and sustainability.
- » Brand owners want to reduce the risks inherent to long supply chains and are therefore taking certain preventative measures such as diminishing their number of suppliers or demanding recognized certificates.
- » It is imperative to regain consumer trust after the recent scandals. In order to do so, key elements to address are food safety, the environment, and animal welfare. In the interest of full transparency, Vion Food publishes all their audits and all their meat inspection data online, and strives to provide a same and consistent message to all parties involved.
- » Private quality standards are part of continuous improvement programs and provide a relevant tool to control several issues.
- » To conclude, developments in this sector should include third party announced audits, as well as a higher focus on transparency.

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Mr F. A. Montagliani – Beekeeping Montagliani - The case study of honey

- » Beekeeping Montagliani is an organic farm located in a Natural Regional Park of Abruzzo (Italy), a strategical position offering within only 100 km difference in altitude of 2000 meters.
- » The company was founded 30 years ago and today it counts circa 500 beehives and it produces in average 200 tons/year of honey and other bee products (beeswax, propolis, royal jelly).



- » Honey can have different characteristics depending on several biogeographic factors (altitude, exposition, botanical species, bee race).
- » It is important that consumers recognize a certain label / brand as authentic, and therefore trust this label as companies must spend a lot time and money in order to comply with such relevant standards linked directly to authenticity and integrity.
- » Beehive owners are subject to HACCP protocols, traceability requirements (GIS beehives database), and inspections (pollen analysis).
- » Today's standards and commitments asked to honey producers are fair and enough to demonstrate that a product is original and not adulterated anyway the risk is to ask in a near future for more requirements leading the sector to higher costs for the final consumer.

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Roundtable

Q: Radical transparency was addressed. How should we deal with the presumption of innocence?

A: B. Urlings indicated that the company for which he works for publishes the audit reports, as well as $\frac{1}{2}$ a page of what will be done with the results. We need to be as transparent as possible with the actions taken to guarantee food authenticity and integrity.

Q: This conference addressed private schemes and the necessity to reinforce food safety and food integrity.

A: H. Paul is in favour of private schemes. However, when comparing companies that had private schemes in place and companies that did not, there was no difference in terms of potential breaches in the integrity of the food chain. Perhaps we should look at the food chain in a different way, and ask ourselves where the risks are and how these can be detected. This is not an easy task given that potential risks can change every day.

Q: Can we expect FBOs to implement certain rules if they don't understand their relevance and their added value for the consumer?

A: E. Marin considered it is true that some standards do not look relevant anymore today, as in the honey sector for instance. Nevertheless, it is not so easy to adapt them. Many parameters have to be taken into account, such as International standards. Even within the EU it is not so easy to make the necessary adaptations. Nevertheless, imperfect rules are better than none and they shall be implemented.

H. Paul added that, as laws are made for known problems, when the problem does not exist anymore, they should be removed but there is often a hesitation. We should have a permanent process of modernization law. Another example was given regarding the horsegate. The reason is due of the exclusion from the food chain of 50% of horses. The rule is understandable but too extreme in practice. The EC reminded its willingness to move on this issue but there is some reluctance among MS, in particular due to imports from third countries. Nevertheless, it looks like a compromise could be found.

Q: Tests and methods are important tools for controlling food authenticity. How do you see the future?

A (R. Rénaville) the trend is going for rapid tests based on DNA. In the short term, new tests, allowing also quantitative assessments will be available on the market. They will be fast and simple to use. They will allow companies to be proactive instead of the repressive checks that are carried out today. It is already done by some companies today. When there is a positive result it is sent to a laboratory for confirmation and decision. It is important to have a reference laboratory and to make a difference between traces, contamination and frauds.

Eric Marin added that it is complicated to agree on protocols when there is no validated method. In addition, after there is a need to agree on the interpretation, a regular update is necessary. It will be the role of the future reference center for authenticity.

Q: what about the consequences of BREXIT on the TTIP negotiations regarding geographical indications (IGP/AOP)?

A (E. Marin, H. Paul) The financial impact at stake of the recognition of our products is enormous. Nevertheless we can't know today what will be the impact of Brexit. It is a difficult discussion. Certain tools are used to protect the markets. We should make a rule only when we can enforce it. Maybe impact assessments should be better used.

Conclusions/Recommendations

- » Good practices exist, some of which were presented at the high-level conference. Food operators are invited to continue their own initiatives and internal procedures to promote food integrity and authenticity;
- » Food operators are invited to continue sharing and promoting best case scenarios amongst them, through similar events or through other ways;
- » The European Commission is invited to recognize private initiatives set up by food business operators guaranteeing food integrity and authenticity;
- » The European Commission shall continue to strengthen cooperation, coordination and information sharing with Member States;
- » Information sharing should include third countries using protocols that should be negotiated by the EU Commission;
- » Innovation on the part of food businesses can play a key role in putting into place laboratory techniques that will guarantee food authenticity and integrity;
- » Member States and the Commission shall continue their efforts in ensuring correct enforcement of the legislation and in adapting this legislation so as to be realistic and understood both by FBOs and consumers while strengthening sanctions when applicable.
- » FBOs are invited to be more transparent; this also requires an explanation of processes used so that consumers can visualize but also understand production processes.

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