

EUROPEAN COMMISSION

> Brussels, 24.4.2019 SWD(2019) 162 final

PART 2/6

COMMISSION STAFF WORKING DOCUMENT

IMPACT ASSESSMENT

Accompanying the document

Commission Regulation (EU)

amending Annex III to Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards trans fat, other than trans fat naturally occurring in animal fat, in foods intended for the final consumer

{C(2019) 2902 final} - {SEC(2019) 187 final} - {SWD(2019) 161 final}

ANNEX 29: Consolidated information collected through interviews with EU level business associations by

1 Trans fatty acids in products

Do you have data and trends on the trans fats content in products of your members? Do you have details on industrial trans fats and ruminant trans fats content?

HOTREC:

HOTREC does not have data on trans fats content of food cooked and served by hospitality businesses.

However, it is important to understand that hospitality businesses cook food for immediate serving and consumption (by opposition to saturated fat the food processing/manufacturing industry).

As a consequence, most hospitality businesses cook meals using raw products, meaning that food served by hospitality businesses may contain natural trans fats (contained in meat, dairy products, etc.) but will normally not contain industrial trans fats, unless a dish is prepared using industrial products (bought from a supplier) already containing industrial trans fats. Moreover, to prepare French fries, restaurants normally use vegetable oils (or in some countries – e.g. Belgium – animal fat for French fries), therefore making deep frying safe in terms of industrial trans fats.

FEDIOL:

Over the past 15 years, FEDIOL members have been supporting industry initiatives to reduce trans fats in vegetable oils and fats. Thanks to these numerous industry actions, new low trans fats vegetable oil and fat formulations are provided to consumers, enabling overall reductions in the trans fats content of food products.

To estimate the extent of this reduction for the vegetable oil and fat sector, FEDIOL undertook a data collection and analysis on the basis of which it was concluded that the average trans fats content in vegetable oils and fat formulations has decreased over the last 15 years from 5.3 to 1% on fat basis, which corresponds to a relative decrease of 81%.

In bottled vegetable oils, refining practices also ensure that trans fats levels are well below 2% on fat basis.

The trans fats reductions achieved in vegetable oils and fats by FEDIOL members are reflected in various EU Member State surveys, where considerably reductions in dietary trans fats intake have been demonstrated in recent years.

This decrease was also highlighted by EFSA in its opinions of 2004 and 2009, based on data analysis at national level. $^{\rm 306}$ It

³⁰⁶ "Evidence from a number of countries indicates that the intake of TFA in the EU has decreased considerably over recent years, owing to reformulation of food products, e.g. fat spreads, sweet bakery products and fast food. More recent reported intakes in some EU Member States are close to 1 to 2

was also highlighted in the Commission report on trans fats released in 2015.

See also FEDIOL document 09NUT242 for more details on FEDIOL data collection.

IMACE:

IMACE has worked with its members to reduce trans fats content of products since 2004, through a Code of Conduct. The voluntary approach has worked well and all members have been actively involved. There have been some variations in the rate of progress, with some smaller companies requiring more time to reduce trans fats in their products.

Activities have achieved good results with average trans fats content of 1.2% achieved for consumer products and less than 2% for B2B products in 2016. As a result the industry can be considered as almost trans fats free. These efforts and successes have been acknowledged by EFSA.

Product functionality requires partly hydrogenated oil to be replaced with another solid fraction. Options include palm oil, coconut oil, fully hydrogenated vegetable oils, or butter/ animal fats. There is a preference not to use saturated fats for health reasons. Some effort is required for product reformulation – it is not simply a case of substituting one ingredient for another – but finding an overall formula that achieves product functionality and quality.

CAOBISCO:

CAOBISCO does not have data on this.

Food Drink Europe:

FDE have not collected information on this. The absolute vast majority of members say that this is not an issue any more. They are below the threshold of 2% (Danish reference threshold). We receive feedback that most of our members have already complied, or that they have virtually eliminated trans fats from their products (the total elimination is not possible due to the presence of industrial trans fats in additives. At federation level there are also many indications that this is not an issue any

E% (EFSA, 2004). For example, in the UK the average intake of TFA has been halved to less than 1 E% (SACN, 2007). In France, intake data from 4079 individuals 3 to 79 years of age collected with 7day food diaries and calculated with tables of TFA content of foods from 2008 show that TFA intakes have decreased by 40 % and are, on average, 1 E% in adults (1.4 E% at the 95th percentile), including 0.6 % for TFA from ruminant sources and 0.4 % for TFA from other sources (AFSSA, 2009). Average intakes of TFA in Denmark, Finland, Norway and Sweden have decreased to around 0.5 to 0.6 E% (Johansson et al., 2006; Lyhne et al., 2005; Männistö et al., 2003; Becker et al., 2005). " EFSA opinion of the scientific panel on dietetic products, nutrition and allergies on a request from the Commission related to the presence of trans fatty acids in foods and the effects on human health of the consumption of trans fatty acids (Request EFSA-Q-2003-022) adopted on 8 July 2004.

	more. There are a number of MS measures and voluntary agreements in place. The feedback that we get is that this has been evaluated by public authorities in a number of member states (Germany, Belgium, Spain) and this indicates that the intake is below the 2% limit. As a result it is not an issue of public health any more in these countries and sectors. That is what EFSA's Opinion said already. But there might still be problems in some countries and products. For instance in Czech Republic: companies there are often small, and they did not understand how to remove industrial trans fats from their products. Confusion exists on terminology.
	Swedish Food Federation (on behalf of CEBP): The level of trans-fats in foods is monitored in Sweden. It is approximately 1.7g / day on average, of which 25% is industrial trans fats. This is below the target level from the WHO. This is a similar level to that seen in Denmark, which has legislation.
	The level of industrial trans fats used in Sweden decreased sharply in the 1990s. This was not driven by legislation, but largely by consumer demand. Consumers in SE did not want industrial trans fats in their food, therefore consumption went down, and producers responded to the change in demand.
	In the early 2000s, a voluntary measure was introduced in Sweden. This type of arrangement is known as "the Swedish model" (collaboration and integration), to set an agreed voluntary measure for industrial trans fats. The model does not specify a particular level of industrial trans fats, just a commitment to make it as low as is possible.
	Despite no committed level, this approach seems to work in Sweden. It is not regulated in any way. However, due to consumer pressure (and a media campaign in the mid-2000s), producers do stick to the agreement. The main driving force behind this commitment is the reputational damage (a loss of sales) to a business if they were found to be flouting this agreement.
Are there	FEDIOL:
specific countries where industrial trans fats are used the most? For which	industrial trans fats are nutrients, which can come from the hydrogenation of vegetable oils and fats and also arise during the refining process of vegetable oils and fats, as highlighted by the European Food Safety Authority (EFSA) in its opinion published in 2004.
products?	FEDIOL does not collect data at country level but for the EU. FEDIOL does not have either data identifying in which countries and which products higher industrial trans fats are used in. This work has however already been done in the previous stages of the Commission work on trans fats. The JRC published a first report in 2013. Based on stakeholder input in which FEDIOL participated, the JRC produced another report in 2014. It served

as the basis for the Commission report published in 2015 and gives an overview of the types of products and countries where higher trans fats can be used. Looking at the Commission report on trans fats (December 2015), it highlights food products such as biscuits or bakery products or popcorn where higher trans fats can be found in some countries (e.g. Sweden, Croatia or Poland are mentioned in the Commission report).

Whilst major efforts have been conducted by industry to lower trans fats levels in an overall reformulation strategy, some products can be more challenging due to the need to maintain the same functionality, taste and mouthfeel, whilst replacing trans fats.

Reducing trans fats, therefore, also involves looking for innovation in processing, using alternative raw materials, replacing trans fats by other fatty acids, using antioxidants, etc.; whilst also reducing saturated fat at the same time, as per existing EU and international recommendations.

This can prove more difficult for some products and in some countries as identified in the Commission report on trans fats. Further efforts have to be pursued.

For example, in applications like frying oils trans fats' were replaced partially by mono unsaturated fats. In other applications where structure is needed, trans fats' were rather replaced by saturated fat. Overall there is a decrease in SAFA, as confirmed by FEDIOL data collection.

The implementation of an EU 2% maximum limit on trans fats on fat basis in the product intended to the final consumer will create the same level playing field for all products in all EU countries.

What are the implications for FEDIOL members of the current situation whereby trans fats are being tackled by individual Member States and industry initiatives, rather than at EU level?

FEDIOL members have contributed to a decrease of trans fats content in food overall. Whilst initiatives – undertaken at national and industry level have been successful, there are still some issues identified for some types of products and in some countries – where higher industrial trans fats content can be found. Moreover, the different rules implemented across EU countries lead to possible trade and Internal Market issues. This is why and since 2014, FEDIOL has been calling for the setting of an EU max limit at 2% trans fats on fat basis in the products intended for the final consumer together with the deletion of the existing hydrogenation labelling. This will settle a level playing field for industry and eliminate the trans fats issue from the EU market.

It should also be noted that we depend on customers' request. Hence, we cannot force lowered trans fats content products to be used by customers if they prefer to rely on other solutions.

How would you define partly hydrogenated oils in Europe?

An EU definition of "partial hydrogenated oil" (PHO) linked to trans fats would be expressed as follows:

"Partially hydrogenated" means that the hydrogenation was not fully performed to the extent possible under practical conditions, correlating and results with a trans fats (TFA) content above 2% on fat basis.

It would better address trans fats in the EU context for the following reasons:

a) Modern processing ensures that the fatty acid composition of vegetable oils and fats, including trans fats, is checked routinely by manufacturers.

b) Legislation based on trans fats limits on fat basis in products intended for final consumers therefore, enables an easier control by authorities on the proper implementation of the hydrogenation labelling.

c) Given the existing national legislations on trans fats, which are referring to a 2% trans fats on fat basis, similar EU harmonised legislation is aligned with such practices and therefore seems appropriate.

d) FEDIOL code of practice on refining refers to a max 2% trans fats on fat basis to be achieved during refining. Such definitions are therefore matching current refining requirements.

e) An EU harmonised legislation will ensure a level playing field and avoid diverging definitions across EU Member States.

f) This is in line with the EU report on trans fats, which confirms the need for an EU solution.

On the contrary, the US definition of partly hydrogenated oil – linked to iodine value – is not the way forward for Europe. FEDIOL has prepared a detailed explanation which we are happy to further highlight. See FEDIOL 17NUT054.

IMACE:

Greater challenges have been faced in the B2B market due to difficulties in achieving product functionality while reducing trans fats input for certain specialist products. This is particularly the case for specific types of products, such as coatings, fillings and emulsifiers, used, for example in certain types of confectionary and biscuits. Such products may have low overall fat content but a high % of trans fats within this fat content.

Experiences of IMACE members are probably typical of those of the industry as a whole, though it is noted that there has been less progress to reduce trans fats in some Eastern European markets. IMACE members' products meet similar standards to those elsewhere in Europe, but trans fats content of other products on the market (either domestically produced or imported, e.g. from Russia) may be higher.

CAOBISCO:

CAOBISCO have data that dates back from the 1990s and therefore would provide a very inaccurate picture of the reality.

Food Drink Europe:

See above

Has your organisation (or your members) committed to reduce trans fats content in own products? In which ways?	FEDIOL:
	Over the past 15 years, FEDIOL members have been supporting industry initiatives to reduce trans fats in vegetable oils and fats. Thanks to these numerous industry actions, new low trans fats vegetable oil and fat formulations are provided to consumers, enabling overall reductions in the trans fats content of food products.
	The average trans fats content in vegetable oils and fat formulations has decreased over the last 15 years from 5.3 to 1% on fat basis, which corresponds to a relative decrease of 81%.
	In bottled vegetable oils, refining practices also ensure that trans fats levels are well below 2% on fat basis.
	CAOBISCO:
	The organisation has set up a voluntary commitment to reduce TFAs in products below 2% of the total fat content. Most members have already achieved the target and those who have not are on track to achieve it in 2017.
	The agreement is in fact a recommendation to CAOBISCO's members. It has been discussed internally and has been influenced by various factors, including legislation introduced in some countries. The agreement is not being enforced via a third party certification system. All corporate members have signed up, as well as the national federations from Belgium, France, Spain, Germany, Hungary, the United Kingdom and Italy.
Is your	HOTREC:
organisation (or your members) involved in a voluntary agreement to reduce trans fats content in food?	HOTREC member FIPE in Italy co-signed an agreement with the Italian food industry and the national authorities concerning the reduction of industrial trans fats contents in food for young people. It exclusively concerns categories of food from the processed/manufacturing industry (e.g. breakfast cereals, biscuits, etc.)
	DEHOGA (German member of HOTREC) engaged in an initiative with the Federal Ministry of Agriculture and Food that aims to reduce trans fats in food.
	As part of it, DEHOGA has produced a guide for hospitality businesses to help them with recommendations in the choice of oil and cooking methods for frying food. ³⁰⁷
	FEDIOL:
	FEDIOL alone took voluntary measures as an industry (see
	answers to questions above).

³⁰⁷ See: <u>http://www.dehoga-bundesverband.de/branchenthemen/reduktion-von-transfetten/;</u> <u>http://www.dehoga-</u> <u>bundesverband.de/fileadmin/Startseite/05_Themen/Transfette/05_TFA_PL_Frittieroele_final.pdf;</u> <u>http://www.dehoga-</u> <u>bundesverband.de/fileadmin/Startseite/05_Themen/Transfette/TFA_Leitlinie_Siedeoele.pdf</u>

One example of industry voluntary actions has been the optimisation of refining processes that has led to the development of a FEDIOL Code of Practice to ensure that "during the refining process and depending on the raw material a max. 2% trans fats on fat basis can be formed (unavoidable presence)." This contributed, together with the numerous initiatives from FEDIOL members, to significantly decrease trans fats levels across the sector.
FEDIOL members also collaborate with sectors downstream to work together on reducing trans fats content in food. As explained above, this can be done by looking for innovation in processing, using alternative raw materials, replacing trans fats by other fats (saturated fats, mono unsaturated fats), using antioxidants etc. FEDIOL members offers solutions to achieve this.
Food Drink Europe:
The voluntary approach has been very successful. The evidence for it is in the dietary intake surveys conducted at national level.
A recent development following last year's Council conclusions: there are reformulation plans for the governments at national level, which include also trans fats. Reformulation has been possible thanks to the fat suppliers' efforts. They can provide products with little trans fats. Even the suppliers of functional ingredients: a few of them are able to provide products without any trans fats.
European margarine association has come up with a code of conduct to reduce industrial trans fats in B2B. This was voluntary.
 In the EU Platform on diet FDE are also proposing commitments to the platform.

2 Policy options impacts

(a) Reformulation

HOTREC: If products Concerning industrial trans fats, examples in Austria and were/ will be Denmark showed that the food processing/ manufacturing reformulated industry has options available to replace industrial trans fats. In , which Denmark, the Danish food administration claims that trans fats ingredients were often (but not always) replaced by saturated fats such as replace trans coconut fat and palm fat. Reformulation is something which fats trans mostly concerns the food processing/manufacturing industry, as fats? Are restaurants usually do not produce themselves industrial trans there fats. Concerning natural trans fats, they simply cannot be differences replaced in the hospitality sector. by product type, firm **FEDIOL:** size? [e.g. See FEDIOL evolution of the fatty acid composition of vegetable would it be oils and fats sold to the food industry in the EU over the last 10 more difficult years 09NUT242 to reformulate

in certain countries?]

Replacing levels of trans fats has been done via different ways i.e. looking for innovation in processing, using alternative raw materials and tropical oils (containing naturally a certain amount of solid fat such as in palm, palm kernel, coconut), replacing trans fats by other fats, using antioxidants, using fully hydrogenated oils etc. It depends ultimately on the customer requests in the type of vegetable oil/fat solution he needs, which is triggered by the type of products he is going to use it for. Hence, it is not possible to give an exact figure of the content of fatty acids as it depends on each end products. However, In general, whilst the trans fats level has obviously decreased to meet the FEDIOL Code of Practice but also the customers requests, the other fats have varied. Looking at FEDIOL data, a decrease of the saturated fats content along with the trans fats content was observed in 2008. This can be explained by further innovation and reformulation by the vegetable oils and fats sector that worked at reducing the saturated fats content of food products.

In certain applications like frying oils this has proven successful. For example, highly saturated fats were replaced by high oleic sunflower oil and palm olein.

Replacing trans fats has also lead to increase in unsaturated fatty acids (UFA). This is done for example by blending vegetable oils and fats to modify the fatty acid profile and improve health.

Another way is to select seeds to obtain a better profile. For example, using high oleic sunflower or rapeseed oils to replace trans fats has led to a higher mono unsaturated fats content and a better nutrition profile.

But such reformulation is less obvious for food applications, where structure is needed, where trans fats were rather replaced by saturated fats.

Fully hydrogenated oils and fats have also been used to a certain extent to replace trans fats, but this option tends to be less implemented due to the existing fully and partially hydrogenation labelling, where consumers lack understanding and tend to think that a fully hydrogenated oil is hence less healthy than a partially hydrogenated oil.

The vegetable oil and fat industry continues to invest heavily in innovation and initiatives to further address this issue.

CAOBISCO:

A member would work with their oil and fat supplier. It's then a matter of finding an alternative. There are issues of texture, taste, etc. One may go for a blend of fats or for a fully hydrogenated oil. The disadvantage of the latter is that it must be labelled. Consumers may question that, and it may actually be understood the wrong way. For example, in the UK the Food Standards Agency has advised consumers to look for "hydrogenated" on the labels in order to detect trans fats. Alternatively you may carry out your own R&D work at

manufacturer level, which is what the big players will do.

What was the cost of reformulatio n? Do you have data on costs by product type, firm size?

FEDIOL:

Reducing partly hydrogenated oil usage and hence trans fats levels raises technical challenges for certain food applications. In practice, some types of food applications (such as confectionery coatings and cream, fillings, puff pastry, etc.) need to maintain the same functionality, taste and mouthfeel, whilst replacing trans fats.

This can imply challenges in terms of hardness, crystallisation speed, oxidative stability, other specific technical functions (e.g. aeration, melting behaviour, etc.).

FEDIOL does not collect data per product type.

IMACE:

IMACE members have continuously worked to develop and improve their products. As a result reductions in trans fats content have been achieved through ongoing product innovation – alongside other product improvements and health goals. Costs have therefore been absorbed in the ongoing costs of innovation and progress to date is not thought to have incurred significant additional or identifiable costs.

CAOBISCO:

Cost is not a discussion point at CAOBISCO. Manufacturers absorb the cost, in a context where they are not allowed to set the price of their products anyway (retailers set the price). The reformulation would be done silently. Besides, you would not market a product that says "has less trans fats" because that is a nutrition claim, and because it would not sell. You would look at other options, such as achieve cost savings elsewhere. If you are merely substituting one fat for another then there would be almost no cost anyway. But if you are going for a different kind of fat, and therefore you need to rework other aspects of your formula in order to achieve the same product, then you might need to do much more and that would cost more.

Food Drink Europe:

It is difficult for FDE to provide information on this. Cost data cannot be shared at federation level. Besides prices are set by retailers.

The details of what reformulation entails depend on the product. You could find a solution for any product. All you have to do is talk to your at and oil supplier and describe the characteristics of what you need. It is a dialogue with the supplier. Sometimes the installations have to be revised to make them compatible with the new fat: you will need an extractant to store one or two

	other oils. If the fat will be more liquid than the previous one then you will need extra sieves.
Did	HOTREC:
reformulatio n led to / leads to higher price for the reformulated product?	Unknown for industrial trans fats, as the hospitality industry is not much concerned directly (only some of its supplies may occasionally be affected).
	Concerning natural trans fats, they usually cannot be replaced in meals offered by hospitality businesses, so reformulation is simply not really feasible for natural trans fats.
members handle this	FEDIOL:
<i>issue</i> [e.g. produce small product at same price point, adjust other	Yes. It also involves costs for the sector in terms of resources, investments in equipment, R&D, packaging etc. Similar costs will also touch users of vegetable oil and fat. Ultimately, such costs were passed on through the chain and to the consumers at the end.
ingredients, pass the cost	IMACE:
to consumers]	No impact on the price of products has been identified to date.
Are you	FEDIOL:
aware of any environment al impact of reformulatio n decisions?	TFA reformulation per se does not have an environmental impact. FEDIOL members supports raw materials sourced sustainably– irrespective of their botanical origin. FEDIOL and its members are heavily involved in actions directed to sustainability of palm or soy for example.
	Palm oil is one of the possible instruments for lowering trans fats. But reformulation has already happened in the utmost majority of cases either by using palm, or using other vegetable oils and fats or other technologies.
	In the current situation where the sustainability at large, but also other issues linked to safety are raised, we would not see how actions on trans fats would lead to significant increase, as long as the situation remains as such and as long as customers impressions and issues are not solved.
	As regards alternatives to palm oil, other options are not necessarily easy to implement and the whole situation is rather complex. Each solution has its own specificities and related issues.
	IMACE:
	Environmental impacts are difficult to assess:
	Palm oil can be a good replacement for partly hydrogenated oil, on account of its functional benefits, but is only one of the options available

Other oils (e.g. soy) also have negative environmental impacts
The industry is committed to using sustainable palm oil, such that increased use of palm oil should not lead to deforestation
Much of the required substitution has taken place already, so we would not expect a surge in palm oil consumption in response to limits on trans fats
CAOBISCO:
Not in relation to trans fats. But CAOBISCO is part of a group on palm oil and part of the discussion is on sustainable palm oil.
Swedish Food Federation:
As the organisation covers a wide range of food producers, they could not give information on exactly how all industrial trans fats would be replaced. Originally in Sweden, palm oil was seen as a good replacement. However, this is not the case anymore, with producers avoiding using palm oil due to the environmental effect and consumer demand. Other than the effect of palm oil, they were not aware of any other environmental effects. They did not think that any reformulation in the past had led to an increase in the cost of food, but did not have any data on this.

(b) Voluntary measure/ agreement

When was	FEDIOL:
the agreement introduced? When did the measures come into effect?	FEDIOL alone took voluntary measures as an industry (see answers to questions above).
	One example of industry voluntary actions has been the optimisation of refining processes that has led to the development of a FEDIOL Code of Practice in 2002 to ensure that "during the refining process and depending on the raw material a max. 2% trans fats on fat basis can be formed (unavoidable presence)". This contributed, together with the numerous initiatives from FEDIOL members, to significantly decrease trans fats levels across the sector.
	In other sectors and at country level, FEDIOL members have also been involved in other voluntary measures. For example, the margarine industry has also significantly decreased the trans fats content in their products, by adopting a Code of Practice in 1995 by which margarines and fat spreads should not contain more than 2% on a fat basis.
	Similar work has been done in other countries.
	At the same time, this has also limitations as explained in the EU Commission report on trans fats – where some higher trans fats content are reported in some products and some countries. The implementation of an EU 2% maximum limit on trans fats on fat basis in the product intended to the final consumer will create

	the same level playing field for all products in all EU countries.
	The setting of such EU trans fats limit hence makes the existing labelling of partially/fully hydrogenation redundant. We will explain this under c) legislative measure.
Who is	FEDIOL:
involved in the agreement (number, size,	FEDIOL members.
types of businesses:	CAOBISCO:
<i>role of industry</i> <i>bodies)?</i>	Members, but not all of them. Some national federations have not signed up. It is not clear why.
Please outline	FEDIOL:
the scope of the agreement in terms of: Types of foods covered (pre- packed/ non- prepacked;	Types of foods covered (pre-packed/ non-prepacked; food types): refined vegetable oils and fats Basis for the limit imposed (industrial trans fats, trans fats, partly hydrogenated oil etc) - industrial trans fats Limit imposed (%): max 2% trans fats on fat basis
food types); Basis for the limit imposed (industrial trans fats, trans fats,partly	
hydrogenated oil etc); Limit imposed (%)	
In your	FEDIOL:
opinion, is there a risk of	FEDIOL Codes are non legally binding as such but are observed by its members.
compliance? Are there measures in place to address this issue?	
Please explain	FEDIOL:
the arrangements for enforcing the agreement and monitoring compliance?	FEDIOL undertook a data collection in 2009, where the outcome was that trans fats content in vegetable oils and fat formulations has decreased over the last 15 years from 5.3 to 1% on fat basis.
<i>How well have these arrangements worked? What was the cost your</i>	<i>If members are involved in voluntary agreements how do these:</i> <i>monitor compliance; encourage compliance; respond to non-</i> <i>compliance.</i>

organisation (or your	Monitor compliance: through FEDIOL data collection (see above)
members) incurred?	Respond to non-compliance: Within FEDIOL membership and whilst FEDIOL codes are non legally binding, they are positively endorsed and supported by its membership. They often serve as a benchmark for the sector. Once public, such codes are also linked to trust and reliability of the industry
	How well have these arrangements worked?
	Given the last data collection undertaken by FEDIOL and as highlighted in EFSA opinions in 2004, 2009, in the JRC reports in 2014 and in the Commission report in 2015, overall all industry and national measures taken have worked successfully as trans fats content has decreased and is low in the majority of food products in Europe. However, there are still some products in some countries where high industrial trans fats levels have been identified. This is why an EU 2% trans fats max limit on fat basis in food destined to the final consumer is needed.
	What are the typical costs of participating in such an agreement?
	Costs are related to data collection and analysis only. There are no extra costs linked to participation as the test data is provided as part of routine testing by each manufacturer and hence does not generate additional costs.
	What are the principal challenges associated with reducing TFAs via voluntary agreements in the industry in the EU and how could those challenges be overcome?
	In general, we see that voluntary agreements have been successful overall across EU. But looking at some types of products and some countries, some high industrial trans fats persist. Our industry develops and offers solutions to reduce trans fats, but finally it's the customer that decides on implementation and that needs to be convinced.
	Challenges are numerous and can come from different sources such as possibly as follows: the types of products where solutions are not so obvious, perhaps due to specific technical challenges, or require extra costs from the customers to adapt its recipes, awareness is maybe less a concern for some countries than others, other priorities have been set by countries than trans fats , the composition of imported non EU food is also outside the scope
	Ultimately and as already highlighted in the Commission report on trans fats in 2015, the magnitude of impacts of such an option (in terms of all types of benefits and costs) "would clearly depend on the scope of industry participation and the coverage of food products on the market."
	Under what conditions would your organisation participate in an EU level voluntary agreement: (1) to apply a 2% limit on industrial trans fats content in food;
	and (2) to stop the use of partially hydrogenated oils in foods?
	In general, FEDIOL prefers the setting of voluntary agreements and self-regulation to address such kind of issues. Voluntary initiatives have indeed helped to reduce trans fats over the last years.

However, in the specific case of trans fats, although much has been achieved in recent years through industry self-regulation, they have reached their limits. We do not envisage further significant reductions in trans fats by establishing an EU agreement.
FEDIOL is therefore not in favour of this option to address the trans fats issue as:
- it will not contribute to eliminating the trans fats issue across all EU countries and across all food products in the same way as would be achieved by EU legislation,
 it will maintain the discrepancies between those Member States having addressed the issue and those that did not,
- it will maintain the consumers' confusion with the current full/partial hydrogenation labelling.
- it would not apply to non-EU food production and/or food composition

(c) Legislative measure

What would be the economic burden for your organisation (or your members) of understandin g legislation on industrial trans fats /partly hydrogenate d oil content in food? HOTREC: Concerning policy options about industrial trans fats: A ban on partly hydrogenated oil would impact much hospitality businesses, as they do not use partly hydrogenated oil and do not produce industrial trans fats. A ban may impact some supplies in some hospitality businesses bought from wholesale in case of short transition periods. Concerning a possible establishment of a limit on industrial trans fats: experience shows impact is limited or non-existent for the hospitality industry: industrial trans fats contained in meals prepared by hospitality businesses are only the result of the content of such trans fats in supplies bought from the processing industry. If the supplies are already below the limits, food prepared by hospitality businesses will always be below the limits. Moreover, the majority of hospitality businesses cook dishes with raw products (and do not produce industrial trans fats), meaning that they will easily comply with limits. Concerning an obligation to indicate trans fats content of foods in the nutrition declaration: hospitality businesses offer non-pre- packed meals and do not have at EU level any obligation to provide a nutrition declaration, though Member States may decide otherwise at national level. In general, nutrition declaration are a completely disproportionate burden for hospitality businesses from changing their menus regularly depending on local/daily supplies (therefore limiting innovation and decreasing quality). Therefore, creating an obligation for hospitality businesses to indicate industrial trans fats content in nutrition declaration would be an unbearable burden for the vast majority of hospitality businesses, while being completely disproportionate given the fact that hospitality businesses do not
--

contents are usually the result of the content in the supplies which were bought from the processing industry, while the majority of hospitality businesses cook raw materials, therefore not producing any industrial trans fats).

FEDIOL:

Since 2014, FEDIOL supports the introduction of an EU trans fats legal limit.

Introducing an EU trans fats legal limit will:

consolidate progresses made on a voluntary basis,

ensure a level playing field to food business operators across EU Member States (due to the multiplication of national trans fats legislations) and for imports from 3rd countries,

eliminate the trans fats issue and establish the same standard across all EU countries. $^{\rm 308}$

Reflecting on how to eliminate the trans fats issue across EU, FEDIOL strongly advocates the introduction of an EU trans fats legal limit which is:

based on a 2%* trans fats on fat basis in products intended to final consumers applicable to non-ruminant trans fats

The EU legal limit would only apply to non-ruminant/industrial trans fats not because of health grounds, but because of technical reasons. In practice, "technically, ruminant trans fats cannot be covered by this measure as trans fats are formed (...) in relatively stable proportions in ruminant fats, and cannot be avoided in ruminant products (...)".

*The 2% trans fats legal limit on fat basis is equivalent to the 2g trans fats per 100g of oil/fat, in the product intended for the final consumer.

With the introduction of such an EU trans fats limit legislation as described above, the existing fully/partially hydrogenation labelling will not have any "raison d'être" anymore and should be deleted for the following reasons:

one of the rationale behind such labelling was to inform consumers on the presence of partially hydrogenated oils which contain much higher trans fats levels than 2%, contrary to fully hydrogenated oils where trans fats levels are below 2% trans fats. With such a new EU trans fats 2% legal limit, all those high non-ruminant trans fats food products will be gone from the EU market as they will be forbidden in Europe.

consumers do not know the difference between partial ("partly" according to Regulation 1169/2011) or fully hydrogenated oils.

consumers confuse both terms, thinking that products labelled as fully hydrogenated contain high levels of trans fats.

Hence, if an EU trans fats legal limit was to be introduced whilst keeping the current mandatory hydrogenation labelling, consumers would continue to think fully hydrogenated oils and

³⁰⁸ See for example Stender S. *et al.*, Tracing artificial *trans* fat in popular foods in Europe: a market basket investigation. BMJ Open 2014.

food products thereof contain high trans fats levels. This would further mislead consumers and lead to discrimination for the vegetable oil and fat sector and particularly for all sectors using such ingredients.

This lack of consumers understanding has been demonstrated in studies and in the Commission report on trans fats, which states that "(...) the little information available suggests that the majority of Europeans do not know about trans fats (...) partially hydrogenated or fully hydrogenated oils. (...)".

What are the expected consequences for FEDIOL members of the EU legislating to limit trans fats content to 2% of fat?

It is difficult to estimate possible consequences.

The major steps in trans fats reduction took already place in the past (cf. Fediol data collection). For the majority of applications, solutions have been developed and are available. All associated costs were already made by our industry in the past.

In general, we do not anticipate substantial impacts, as all bottled vegetable oils and fats are already below 2% as per FEDIOL Code of Practice. Ultimately, it will depend on what customers are requiring and the types of solutions (as already emphasised above) they will want to have for their products.

What changes would occur in the market if such a limit was introduced? What changes, if any, would such legislation prompt in the formulation of members' products?

Again, it is difficult to estimate. From one side, the issue has already been addressed for most of sectors where this is not an issue anymore. For other sectors and some products in some countries as highlighted in the Commission report in 2015, such work could be more challenging and could involve either technological adaptations or higher costs. But it is not possible to state which vegetable oils/fats solutions would be used instead in these cases as there are various different options such as for example, the types of botanical oils i.e. use of palm oil or high oleic sunflower oil, rapeseed oil or change in production process i.e. full hydrogenation. Often it is a combination of those options which is used to get a final product with a better health profile whilst keeping the needs of the specific final product. Such recipes cannot be changed overnight and require adaptation.

It is important to have maximum flexibility in the choice of raw materials that replace high trans fats products. This can help to minimise costs for adaptations at customer level.

One can also raise the question as to whether this could lead to having some products disappearing from the market. This will mostly depend on available solutions and costs of final products and what customers want.

IMACE:

This would be IMACE's favoured option. Because 2% limit has already been achieved, such a limit would not impose additional costs on the sector but would consolidate gains achieved to date. Imposing a legal limit would contribute to consumer certainty and remove the need for labelling. IMACE would favour a differential limit for low fat products. This is because technical challenges make it difficult to eliminate trans fats for specialist ingredients (e.g. coatings, fillings and emulsifiers as mentioned above) which are used in small quantities. In such cases it may be difficult and costly to reduce trans fats to less than 2% of overall fat content, even though it may account for a tiny proportion of overall nutritional content.

CAOBISCO:

There would be no issue. CAOBISCO, will draw guidance following legislation. The cost is borne by the secretariat.

Food Drink Europe:

FDE had quite some discussion internally on this matter. As a general principle FDE's members feel that the success of voluntary agreements has been such that there is a preference to continue that way instead of regulating. But there is also acceptance by many of being able to comply with legislation.

Looking at the small companies they do not necessarily have the means to comply. It is not a matter of will. It is more a matter of know-how and containment of costs.

FDE support the recommendation to set a limit of a maximum of 2% , et discussed. This can be achieved by voluntary agreement or legislation.

What would	HOTREC:
be the economic burden for your organisation	Hospitality businesses do not use label, as they produce non- prepacked food/meals for immediate consumption. New labelling/information obligations would be extremely costly and likely to be unfeasible by the majority of hospitality businesses (91% being micro-enterprises, 99.5% being SMEs).
members) of	FEDIOL:
changing labels in your products? Would this be more burdensome for SMEs?	For vegetable oils and fats, we do not anticipate costs linked to the changing of labels due to the setting of a 2% trans fats legal limit. This is because all bottled vegetable oils and fats are already below 2% as per FEDIOL Code of Practice.
	The situation would be completely different if a trans fats labelling content was introduced. We will explain under section d) why such labelling is really not the way forward in Europe.
	CAOBISCO:
	IT would depend on the range of the proposed obligation. If we look at having to label the total trans fats content, then it requires analysis, which has one type of cost. There is no method to distinguish naturally occurring trans fats from industrial trans fats. You can do it at ingredient level. You can't distinguish ruminant trans fats and industrial trans fats on a label: that would only confuse consumers.
	As long as a transition period is possible, then the cost can be incorporated in the product changes that will be made anyway. Every now and then companies change the product. Ideally you would change the label when you change the product. That is what was available with the Food Information Regulations, which

	means you could combine the different label changes together.
	Would it be a necessity to label if intake levels are already below 2%?
	Food Drink Europe:
	FDE are playing with the idea of making a toolbox on reformulation. Make a decision tree of what you need to do. That would be a technical document, exploring what one fat could be replaced with, and what one would need to look at when considering reformulating their product. It is important that SMEs receive the required technological support. That way you can mitigate the costs. It would be even better if it was carried over by the EC and the industry. There was something similar on acrylamide: a code of practice has been published on the EC's website for anyone who is interested in reducing acrylamide in food products. Something similar could be done here.
Are you	HOTREC:
aware of any industrial trans fats detection mothod?	Not aware. Testing capabilities are extremely limited as the sector is completely dominated by micro-enterprises and SMEs, and as hospitality businesses are subject to light/flexible hygiene requirement in application of HACCP rules.
What is the	FEDIOL:
testing capability in your sector?	Modern quality control procedures ensures that the fatty acid composition, including the amount of trans fats, of vegetable oils and fats, is checked routinely by manufacturers. Having an EU 2% legislation and using the trans fats parameter for a definition of fully/partially hydrogenated oils is possible to do in official controls done by authorities. We understand that this is how it works in those countries like Denmark or Austria, where there has been a legislation on trans fats already for some time. In addition, analytical methods exist today to test the trans fats content in the final food product sold to the consumers (e.g. biscuits, margarines, ready-made meals etc.).
	As indicated above, using iodine value (IV) as specified in the US legislation to identify the potential presence of partially hydrogenated oils in products sold to the consumers is not always possible as vegetable oils and fats are only one ingredient of the product. Furthermore, fully hydrogenated oils and fats are often used in combination with other vegetable oils and fats. The other vegetable oils and fats will have in many cases higher IV values, whilst being below the 2% trans fats limit.
	We understand that when testing end food products containing both ruminant and industrial trans fats (e.g. a biscuit or a margarine with both butter and vegetable oils/fats), there are analytical methods available today (e.g. GC-MS method) which enables to test the trans fats levels and quantify them in general.
	However, it is not possible today to our knowledge to separate precisely ruminant from non ruminant trans fats directly using an analytical method. Indeed, there can be an overlap between the two sources of trans fats in some of the specific trans fats molecules. This is, among others, the case where levels of one origin are very low (e.g. a fat blend with both vegetarians fable and animal fat origin). An estimation of the non ruminant trans

fats content in a product where both ruminant and non ruminant trans fats are present, can only be done by calculating the total trans fats(ruminant and non ruminant content) based on the quantity and type of dairy ingredients in the product.

It would also be important to know in advance the various ingredients used.

IMACE:

IMACE members test products regularly, typically once per year.

It is not currently feasible to test specifically for industrial trans fats – so tests cover total trans fats content. As members do not supply products with ruminant trans fats, total trans fats= industrial trans fats for members' products. However, trans fats in end products may include ruminant trans fats(e.g. from dairy products) as well as industrial trans fats. A calculation would be needed to assess industrial trans fats content.

IMACE does not have data on the costs of product testing – however, it may be possible to ask members for this.

CAOBISCO:

There would be four ways: (i) you analyse the product (ii) you analyse the ingredients (iii) you rely on suppliers to tell you (iv) you rely on nutrition data.

Food Drink Europe:

That is a very technical question. There is a discussion at the Codex Alimentarius, a committee on methods of assessment and sampling is working on establishing the conditions of a "free trans fats" claim. At the last meeting it was said that it would be very difficult to accurately detect the level of trans fats in food products. It was also said that it would be difficult to establish a single level of trans fats in food. There will be a follow up discussion at the CA in November or December. It would be important to give account of that discussion.

In case of a 2% limit, what share of your members would need to reformulate their	HOTREC: If a 2% limit on industrial trans fats applies to all products sold by the food processing/manufacturing industry, hospitality businesses should not have difficulties, as the majority of restaurants cook dishes with raw ingredients, and when there are industrial trans fats content in meals served by hospitality businesses it is usually only the result of industrial trans fats content in supplies acquired from the processing industry.
products? To what extent would SMEs be affected?	What matters for the hospitality industry is that any legislative measure focuses exclusively on industrial trans fats, leaving aside natural trans fats (which simply cannot be replaced in the hospitality sector). Moreover, labelling/information obligation are disproportionate/unfeasible in the restaurant sector given its structure (micro-enterprises) and operating methods (non-standardised food, change of ingredients/supply menus on a very regular basis – e.g. menu of the week, dish of the day, etc.) FEDIOL:

NO available FEDIOL information on this so far. From the feedback we gather, setting an Autrans fats limit of 2% on fat basis in food destined to consumers is not expected to have big impact on the sector, as many efforts have already been achieved in the last years to reduce trans fats content.

If such 2%trans fats legislation was adopted, what level of effort would a typical firm have to invest?

FEDIOL does not have data to answer, also given the too short time between receiving the question and answering (2 days). We do not anticipate substantial efforts for FEDIOL members within the vegetable oil/fat sector. Having said that, the discussions and work taking place between FEDIOL members and their customers in their quest for the best solution fitting their products should not be forgotten. But we cannot answer for other players or other sectors.

How could the costs or disruption of such a requirement be minimised?

It is important to have maximum flexibility in the choice of raw materials that replace high trans fats products. This can help to minimise costs for adaptations at customer level.

A clear asset – which FEDIOL and many other sectors have been advocating for years – would be to have the deletion of the fully/partially hydrogenation labelling deleted.

Food Drink Europe:

FDE would hope that other models are considered as well, such as the Austrian model which is more nuanced.

Swedish Food Federation:

As most food produced in Sweden is already below the suggested regulatory level, the legislative measures would have little impact in Sweden. There may be a slight cost to some firms to change recipes and labels, but this would be a minority, and given the experience of firms in Sweden previously, it would not be a large cost. There would be no additional costs for testing or monitoring, as this would be incorporated into existing control specifications. New industrial standards come in fairly regularly, so producers are used to changing the things they monitor and build it into their existing costs. So it is estimated that there is no additional cost.

(d) Labelling

What would	FEDIOL:					
be the economic burden for your organisation	FEDIOL strongly believes that mandatory trans fats labelling is not the way forward. It would further increase consumer confusion and lack of awareness in general on what is written on the label.					
(or your members) of understandin	Instead, in order to consolidate progresses made on a voluntary basis and ensure a level playing field applicable to food business operators across Member States (due to the multiplication of					

g a new obligation to indicate the TFAs content of foods in the nutrition declaration? national legislation), introducing EU legislation setting a 2%trans fats limit on fat basis would better address the issue. It would eliminate the trans fats issue across all EU countries once and for all.

This is confirmed by many studies such as:

Stender S. et al., Tracing artificial trans fat in popular foods in Europe: a market basket investigation. BMJ Open 2014 which states that "The effectiveness of policies for reducing dietary trans fats was recently assessed based on studies published between 2005 and 2012 It was found that 'bans were most effective in eliminating trans fats from the food supply, whereas mandatory trans fats labelling and voluntary trans fats limits had a varying degree of success'. This statement is strongly supported by the findings in the present study concerning the current availability of popular foods with high amounts of industrial trans fats in Europe, thus lending support to a legislative TF restriction by the EU. This is a low hanging fruit to pick in the prevention of coronary heart disease among 500 million EU citizens."

Downs S. et al., the effectiveness of policies for reducing dietary trans fat: a systematic review of the evidence, Bulletin of the World Health Organization 2013."Our observation that national and local bans were far more effective than mandatory trans fats labelling reflects the Danish Nutrition Council's decision to opt for a ban when considering how to remove trans fats from the food supply. Labelling policies have several limitations. First, trans fats intake can remain extremely high in pockets of the population. In Canada, even after mandatory labelling led to 76% of foods meeting voluntary trans fats limits, intake in the population still exceeded the WHO recommendation that less than 1% of dietary energy intake should come from consuming trans fats. In particular, intake by teenage boys was double the recommended level. Second, some foods with low trans fats levels are costlier, which will be felt more by consumers with a low socioeconomic status. Ricciuto et al. found that some margarine companies in Canada offered products with a low trans fats level while continuing to sell products with a high level at a lower price. Thus, price-conscious consumers would be more likely to consume the less healthy product, thereby increasing their risk of diet-related chronic disease. Third, for labelling regulation to be effective, the population must be both aware of trans fats and able to interpret nutrition labels accurately. In high-income countries, where literacy levels are high, labelling is more likely to be effective in reducing trans fats intake than in low- and middle-income countries."

It should also be noted that if this option was chosen, it would target both ruminant and industrial/non ruminant trans fats, as highlighted in the Commission report on trans fats. Hence, in that case, the labelling would need to include the total trans fats content – from both ruminant and non ruminant.

IMACE:

IMACE members previously labelled trans fats content of their products. This helped to provide information to consumers, though effectiveness may have been limited by consumer

awareness of trans fats.

Current rules regarding labelling of partially and fully hydrogenated oils are unhelpful, because of a lack of consumer understanding. As a result, the current rules unfairly and unnecessarily stigmatise the sector.

Labelling of trans fats would be preferable to the current rules relating to partly and fully hydrogenated oils. Any such labelling should cover whole trans fats content because this determines health impacts.

Companies regularly review and update product labels. Therefore, if there was a sufficient lead-in time for a new labelling requirement (e.g. 2 years or more) it should not have significant costs.

Food Drink Europe:

A new obligation to indicate trans fats level on food products would be a huge undertaking, similar to the FIR. Entire management systems have to be changed. This is broader than changing a label. That is an option that FDE would not support. If there was a desire by policymakers to go for a regulatory limit on industrial trans fats FDE would request a deletion of the obligation to label partially hydrogenated oil on food products.
Consumers do not understand the difference between fully and partially hydrogenated. There is also confusion among smaller producers about those terms. From a consumer understanding this is not working. A total ban on trans fats is not realistic and feasible.
Costing the burden is something to ask individual companies about. The FIR required relabelling of 30,000 products. The cost of change in one SKU is what needs to be ascertained.
From a theoretical point of view, the costs might be higher for the bigger companies because they have more products, but smaller companies might not have the resources to do the analysis. They will need to outsource the work.
HOTREC:
See above: very high impact / completely disproportionate given the origins of industrial trans fats.
FEDIOL:
Modern quality control procedures ensures that the fatty acid composition, including the amount of trans fats, of vegetable oils and fats, is checked routinely by manufacturers. Having an EU 2% legislation and using the trans fats parameter for a definition of fully/partially hydrogenated oils is possible to do in official controls done by authorities. We understand that this is how it works in those countries like Denmark or Austria, where there has been a legislation on trans fats already for some time. In addition, analytical methods exist today to test the trans fats content in the final food product sold to the consumers (e.g. biscuits, margarines, ready-made meals etc.).

Would the labelling requirement mean that any additional testing of products would be required? If so, what would be needed and how many tests would be required?

We clearly see no benefit in such option. Also, the impacts of the labelling change should not be underestimated. All labels have been changed recently following the FIC implementation and any change will require additional costs for the entire food industry.

As the labelling option would target both ruminant and non ruminant trans fats (as highlighted in the Commission report on trans fats2015), we can anticipate quite numerous extra costs required for the dairy sector and for all products containing dairy fats, as well as for the vegetable oils and fats sector and food products containing vegetable oils and fats or both dairy and vegetable oil/fat. This is also irrespective of whether there is any benefit in such an option and of the changes in labelling.

Ultimately, we see huge impacts and either loss in flexibility given and volatility of costs or the need to change labels continuously to adapt to changing trans fats content.

If the EU was to legislate to require nutrition declarations to include details of the trans fats content what would be the impact on FEDIOL member firms?

This would have clear impacts as it would mean a complete change of the way industry is functioning and a change of all labels. We would also have strong objections on the approach behind, knowing the lack of consumers understanding on labels. If bottled oils need to be labelled, the impact could be very negative, since they could be seen as a source of trans fats, while in reality the mono unsaturated fats and poly unsaturated fats have a very positive effect. Even at very low levels of presence, the consumer could consider trans fats as a contaminant. This could give a wrong stigma to bottled oils, with a very negative impact on the whole Oils and Fats business.

If such legislation was adopted, what level of effort would a typical firm have to invest (expressed either in person days or euro) in: review of the legislation and appraisal of the implications for the firm: internal staff communication/engagement; supply chain communication/engagement; customer communication/engagement; changes to product labels and product documentation; or other (please specify).

Given the short time it is impossible to provide detailed figures. Comparing it to other assessments done for other issues (origin labelling), adding on top a labelling and having to add the measurement of exact trans fats content on labels will entail clear changes in the sector. Whilst FEDIOL members deliver vegetable oils and fats as per FEDIOL Code of refining ensuring that no more than 2% trans fats is produced during the refining and whilst testing of trans fats content is done routinely, this is not an information which is passed to customers today as this is not a mandatory EU requirements.

Hence, this means that additional costs will come from:

- tracking the trans fats level in each batch/product delivered to

customers

- possible stocks of every batch given the fluctuations intrans fats content

- adding this information up to the customers (vegetable oil/fat as ingredient) or to the consumer directly (labels for bottled oils)

- additional work force required

- lack of flexibility for customers using the vegetable oils/fats

We can anticipate that this would generate substantial costs. We are currently working on a more detailed economic assessment which we will share in the coming weeks.

The additional costs for the processors would be passed on to the next steps in the processing, then to the retailers/wholesalers and ultimately to the consumers who would have to pay a higher price on each bottled oil bought. The price of a bottled oil, irrespective of its botanical origin, would rise.

Would the labelling requirement mean that any additional testing of products would be required? If so, what would be needed and how many tests would be required?

As highlighted above, such tests are routinely done. This is done to ensure that the product complies with the requirements and specifications set. But the exact levels is not necessarily passed on to the chain. Adding this extra requirements will have clear impacts for the sector and for downstream users. It will also add to the complexities of end products producers to ensure the exact figures are set, and hence any change of the recipe will have to be weighted against the changes of the labelling that this will have.

What would be the typical cost of amending a label to introduce details of the trans fats content to the nutrition declaration?

See above. Several thousands euros will have to be added to change the labels – for those going directly to bottled oils and fats - and add this extra information in top of what exists today. Such costs would include the design, reprint of labels etc.

How many label designs would need to be changed across FEDIOL members?

All labels for bottled oils and fats will have to be changed. But also all products where vegetable oils are an ingredient.

How frequently, on average are such labels updated or 'refreshed' (in the absence of new legislation / regulatory requirements)?

It is difficult to estimate as there are often changes due to new legislation/labelling requirements.

How could the costs or disruption of such a requirement be minimised?

We do not see how this would be minimised, except by not introducing such labelling requirement at all but rather set an EU trans fats max limit on 2% in final product for the final consumer.

On average, how many products would be affected in your opinion?	Swedish Food Federation: They did not believe that it would be possible to introduce the labelling legislation. This is because for some products, it would not be possible to say the exact amount of industrial trans fats in a product. Even where it is possible, they do not think it would be a good idea. This is because consumers do not know what a
	high or low level of industrial trans fat is. As soon as they see a label with industrial trans fats on it, they will think it is a bad product, even if the level of industrial trans fats is low and within any guidelines.

(e) Prohibition of the use of partially hydrogenated oils in foods

FEDIOL:

If the EU was to legislate on

use of partially

hydrogenated oils in food

what would be

an appropriate

definition to

use?

FEDIOL does not support the US approach which "bans" partly hydrogenated oils for the following reasons:

It sets a dangerous precedent in banning a process.

It will clearly also impact on consumer perception overall on hydrogenation. Already today, there is a clear lack of consumer understanding on trans fats or on hydrogenation. Banning the partial hydrogenation will also have consequences on the use of full hydrogenation in the future, as consumers will not understand the difference between the 2 hydrogenation process – where one is banned and the other is allowed.

The US approach is not relevant as it targets a process rather than a nutrient

As highlighted in the EU Inception Impact Assessment on trans fats, "consumption of trans fats (...) increases the risk of heart disease more than any other macronutrient compared on a per calorie basis."

It is therefore more relevant to limit the level of a nutrient with an adverse health profile –trans fats in this case - than a process - partial hydrogenation of oils and fats.

The US approach is not clear and difficult to understand for consumers

Setting a 2 %trans fats max limit is clearer and easier to understand from a consumer perspective, as advocated by EU consumers' organisation.

The US approach does not fit the EU system

The US approach is not in line with the overall approach and objectives pursued in Regulation (EU) No 1169/2011 on Food Information to Consumers and in Regulation (EC) No 1924/2006 on nutrition and health claims. It is contrary to findings of the EU Commission report , which states that "Although average intake

	in the EU has been reported below nationally and internationally recommended levels, this is not true for all groups of population. Food products with high industrial trans fats content are available on the market and there are public health gains to be reaped by reducing intake."
	It does not take into account scientific and technical progresses.
	Having said that and answering the question of the definition, an EU definition of "partial hydrogenated oil" (PHO) linked to trans fats would be expressed as follows:
	"Partially hydrogenated" means that the hydrogenation was not fully performed to the extent possible under practical conditions, correlating and results with a trans fats (TFA) content above 2% on fat basis.
	It would better address trans fats in the EU context for the following reasons:
	a) Modern processing ensures that the fatty acid composition of vegetable oils and fats, including trans fats, is checked routinely by manufacturers.
	b) Legislation based on trans fats limits on fat basis in products intended for final consumers therefore, enables an easier control by authorities on the proper implementation of the hydrogenation labelling.
	c) Given the existing national legislations on trans fats, which are referring to a 2%trans fats on fat basis, similar EU harmonised legislation is aligned with such practices and therefore seems appropriate.
	d) FEDIOL code of practice on refining refers to a max 2%trans fats on fat basis to be achieved during refining. Such definitions are therefore matching current refining requirements.
	e) An EU harmonised legislation will ensure a level playing field and avoid diverging definitions across EU Member States.
	f) This is in line with the EU report on trans fats, which confirms the need for an EU solution.
	On the contrary, the US definition of partly hydrogenated oil – linked to iodine value – is not the way forward for Europe. FEDIOL has prepared a detailed explanation which we are happy to further highlight. See FEDIOL 17NUT054.
What is the	FEDIOI :
volume / value	FEDIOL does not have data.
in the EU that	
would be	
affected by	
such	
iegisiation!	

What would be the consequences for the EU market for oils and fats of prohibiting use of partially hydrogenated oils in foods? What specific changes would occur?	FEDIOL: Basically the same consequences as a max 2 % trans fats level, but with even more negative consequences as flexibility would be limited due to the banning of a process.
What are the expected consequences for your members in the EU legislating to prohibit partially hydrogenated oils from being used in food?	 FEDIOL: The US type approach goes against all national and voluntary measures undertaken so far in Europe. Rather than looking at the impacts, the approach should be challenged. It suppress any flexibility for food business operators in finding tailor-made solutions for each customers products It is difficult for a consumer to understand. Particularly in the case where the fully hydrogenation is still one of the solutions to address trans fats. The implementation of the same iodine value definition than in USA will lead actually to higher trans fats on the market compared to setting a max 2% trans fats legal limit. It contradicts previous voluntary and national regulatory initiatives taken in Europe for many years. It goes against the overall approach and objectives pursued in Regulation (EU) No 1169/2011 on Food Information to Consumers and in Regulation (EC) No 1924/2006 on nutrition and health claims. It does not take into account scientific and technical progresses. Ultimately it also sets a dangerous precedent in banning a process. There are problems in defining and measuring partly hydrogenated oil socuter. A robust definition based on iodine content is unreliable as an indicator of trans fats. FEDIOL may be able to provide more details. It would be better to target trans fats, which are more directly related to the ablt objective of limiting consumer trans
	fats intake. Eliminating use of partly hydrogenated oil would be

disproportionately costly, because of the difficulties imposed on particular suppliers of specialist products.

(f) Conclusions and Future Policy

Are the measures regarded as a success in your sector?	FEDIOL: FEDIOL actions have been successful in reducing significantly trans fats content in their products. However, and as highlighted in the Commission report, there are still high content in some products in some countries.
	There is also a clear lack of consumers knowledge on trans fats and on the difference between partially and fully hydrogenated oil. Due to this, consumers believe that products containing partially hydrogenated oils are "safer" than fully hydrogenated oils.
	This is why FEDIOL strongly believe that the only ways forward
	The setting of an EU 2% non-ruminant trans fats legal limit on fat basis in products intended to final consumers.
	TOGETHER WITH
	The deletion of the existing full/partial hydrogenation labelling as prescribed by Regulation (EU) No 1169/2011
	An EU 2% maximum limit of trans fats on fat basis in the product intended to the final consumer would therefore set a level playing field across Europe, get rid of the higher levels still present on the market in some EU countries and prevent the imports of high trans fats products from 3rd countries. Such deletion of labelling would finally avoid consumer confusion and lack of understanding. All in all, the 2 measures will contribute to a better regulatory framework.
What lessons have been learnt regarding implementatio n? In hindsight, would the organisation do anything differently if it had the chance	
again?	

Are there any plans for new rules? Are there any plans to modify or extend the existing rules or arrangements for their implementatio n? If so, what are these plans and why?	FEDIOL: There are no plan to modify FEDIOL Code of Practice. Actions at the level of industry has contributed to improve the situation. But there are still pockets of issues in some countries in some products and there industry actions has also some limits. In this context, to tackle the situation once and for all, the only way forward is to: Set an EU 2% non-ruminant trans fats legal limit on fat basis in products intended to final consumers
	the deletion of the existing full/partial hydrogenation labelling as prescribed by Regulation (EU) No 1169/2011
What can the EU and other countries learn from the experience in your country?	No information provided.
Would you welcome the introduction of EU wide measures to limit industrial trans fats? If so, what type(s) of measure would you support and why?	 HOTREC: Labelling on pre-packed products is acceptable. Limit on industrial trans fats also acceptable. No obligation for non-prepacked food, no testing obligation. FEDIOL: YES. As highlighted, FEDIOL supports since 2014 the setting of an EU 2% non-ruminant trans fats legal limit on fat basis in products intended to final consumers TOGETHER WITH
	 the deletion of the existing full/partial hydrogenation labelling as prescribed by Regulation (EU) No 1169/2011. In this context, we support the Danish approach by which an EU trans fats legal limit would be based on a 2%*trans fats on fat basis in products intended to final consumers. *The 2%trans fats legal limit on fat basis is equivalent to the 2gtrans fats per 100g of oil/fat, in the product intended for the final consumer. Such a 2% trans fats limit is: in line with existing national initiatives such as in Denmark, Austria or Hungary, in line with EFSA acknowledgment that trans fats are close to 1 to 2% Energy in Europe, enabling to get rid of higher levels found in countries such as Croatia, Sweden, Bulgaria, Slovenia or Poland as per the Commission report on trans fats,

- consistent with the FEDIOL Code of Practice on refining, which ensures that, during refining, no more than 2% trans fats on fat basis is formed, including in bottled vegetable oils.

With the introduction of such an EU trans fats limit legislation as described above, the existing fully/partially hydrogenation labelling will not have any "raison d'être" anymore and should be deleted for the following reasons:

- one of the rationale behind such labelling was to inform consumers on the presence of partially hydrogenated oils which contain much higher trans fats levels than 2%, contrary to fully hydrogenated oils where trans fats levels are below 2% trans fats. With such a new EU trans fats 2% legal limit, all those high non-ruminant trans fats food products will be gone from the EU market as they will be forbidden in Europe.

- consumers do not know the difference between partially ("partly" according to Regulation 1169/2011) or fully hydrogenated oils.

- consumers confuse both terms, thinking that products labelled as fully hydrogenated contain high levels of trans fats.

Hence, if an EU trans fats legal limit was to be introduced whilst keeping the current mandatory hydrogenation labelling, consumers would continue to think fully hydrogenated oils and food products thereof contain high trans fats levels. This would further mislead consumers and lead to discrimination for the vegetable oil and fat sector and particularly for all sectors using such ingredients.

This lack of consumers understanding has been demonstrated in studies and in the Commission report on trans fats, which states that "(...) the little information available suggests that the majority of Europeans do not know about trans fats(...) partially hydrogenated or fully hydrogenated oils. (...)".

On the contrary, FEDIOL does not support the US approach which "bans "partly hydrogenated oils. As highlighted in the EU Inception Impact Assessment on trans fats, "consumption of trans fats (...) increases the risk of heart disease more than any other macronutrient compared on a per calorie basis."

It is therefore more relevant to limit the level of a nutrient with an adverse health profile –trans fats in this case - than a process - partial hydrogenation of oils and fats.

It is also clearer and easier to understand from a consumer perspective, as advocated by EU consumers' organisation.

It also fits the EU regulatory system and public health platform better, as it is in line with the overall approach and objectives pursued in Regulation (EU) No 1169/2011 on Food Information to Consumers and in Regulation (EC) No 1924/2006 on nutrition and health claims. It is also confirmed in the EU Commission report , which states that "Although average intake in the EU has been reported below nationally and internationally recommended levels, this is not true for all groups of population. Food products with high industrial trans fats content are available on the market and there are public health gains to be reaped by reducing intake."

Also, it does not take into account scientific and technical progresses.

IMACE:

IMACE reiterated the following key points:

Total	and	not	just	industrial	trans	fats	should	be
consid	ered	when	exam	ining health	effects			

The 2% limit has already been achieved by members. These efforts should be consolidated, but eliminating trans fats completely would have disproportionate impacts

The focus should be on trans fats, not on partly hydrogenated oil

Food Drink Europe:

	As mentioned above FDE supports the 2% limit but would inv a nuanced approach such as that implemented in Austria. FDI preference is through voluntary agreements, which work we But FDE would also work to comply with a legal obligation. Fl does not favour a labelling obligation.				
	Swedish Food Federation:				
	The model currently used in Austria would be the preferred option. But as stated earlier, reducing the consumption of industrial trans fats is only tackling part of the problem.				
	The measures currently in place in Sweden are seen as a success. Other countries could learn from the Swedish experience in both this field and others – it is fruitful to have an open dialogue between concerned parties and form a commitment on the way to proceed.				
What	FEDIOL:				
consequences, if any, would the proposed measures have	The EU system is a very complex system which enables a high safety and quality standard of all products complying with it. We do not see major consequences for exports of vegetable oils/fats outside the EU. But it will impact on final products (biscuits etc.)				
for export of products	manufactured in EU but exported outside EU.				
beyond the EU?	IMACE:				
	In general a small % of production is traded internationally. Therefore members are more affected by standards in the domestic market than in export markets, and the risk of low cost imports meeting lower standards is not significant.				

ANNEX 30: Aggregated evidence for each type of impact: a list of indicators; the description of the evidence obtained, either quantitative or qualitative; and sources for that evidence

Indicators and sources

Table 60 Indicators, data and sources

	Economic Impacts			
	Judgement criteria	Indicators	Description	Source
Extent a affected numbers business product trans fat nature o processe Strategie industria food Types of affected ingredie producti informat labelling One-off interven	Extent and nature of affected activities – numbers and types of	Number of active food businesses within scope of each option	Number of enterprises by food industry sector, depending on the option one or more sectors should be counted	Eurostat See Annex 8
	businesses, types product and levels of trans fats content, nature of production processes Strategies to reduce industrial trans fats s in food Types of operating costs affected (e.g. costs of ingredients, costs of production, costs of information and labelling) One-off costs of intervention to FBOs,	Estimates of number of food businesses producing products with industrial trans fats	NA	
		Value of output of products containing industrial trans fats (\in)	NA	
		industrial trans fats content of different food types / industrial trans fats 'hot spots'	TFA content in food is described by data collected through a literature review of existing studies	Annex II–Table S2. Food products with trans fatty acid content of ≥2g per 100g of total fat http://publications.jrc.ec.europa.eu/re pository/bitstream/JRC91353/Ibna267 95enn.pdf

e f. [t t t t c c t t t c c t t c c t t t c c t t t c c t t t c c t t t c c t t t c c c t t c c c t t t c	e.g. learning and familiarisation costs (aspect of admin burden) Type, nature and extent of investment required to reformulate products	Typical cost of product reformulation process (per product/ business, €)	The available evidence suggests that the costs of product reformulation are likely to vary widely, from zero to upwards of EUR 100,000, depending on the complexity of the product to be reformulated, the technical challenges involved, the extent of required changes in the production process, the position of the product in the supply chain, the timescale over which reformulation is required, and the degree to which changes can be addressed through ongoing product development activities.	Country research JRC workshop Trans-fatty acids in diets – Health and legislative implications (Mouratidou et al, 2013)
		Cost of ingredients	In order to assess the potential increased cost of food ingredients as a result of reductions in industrial trans fats in food products, the following assumptions were made based on the available evidence:	Country research JRC workshop Trans-fatty acids in diets – Health and legislative implications (Mouratidou et al, 2013)
			 All products exceeding limits on industrial trans fats or partly hydrogenated oils will require a change of ingredients, substituting partly hydrogenated oils for alternative fats and oils; 	
			 Food ingredients account for 41% of the value of output of the products affected ; 	
			-partly hydrogenated oils account for 5% of the overall value of ingredients used in products currently exceeding the 2% industrial trans fats limit;	
			- Substitute fats and oils are 25% more expensive than partly hydrogenated oils.	
	Magnitude of increase or decrease in ongoing operating costs under each option Time profile and duration of cost changes	Aggregate change in operating costs of each option, EU (€, %)	NA	
		Standard trans fats profiling costs / SKU	ΝΑ	

I H C F F C S N F N S F H S S F H	Distribution of costs between different types of business Possible mitigating/ transitional measures Reporting costs per firm associated with each specific option Whether conditions are favourable for a voluntary agreement to secure participation from relevant food business sectors	Food industry attitudes to voluntary measures	Industry sources have indicated they welcomed voluntary measures. However, most have already acted on industrial trans fats : a voluntary measure would have no significant impact on them.	Interviews with EU level associations
		Wider stakeholder attitudes to voluntary measures	Major players in the industry have already acted.	Interviews with EU level associations Country research
		Costs of product testing	The research found some evidence of the costs of testing products for industrial trans fats content. In Latvia, trans fats content is analysed by the Institute of Food Safety, Animal Health and Environment (BIOR). The cost of analysing one product was quoted in the national impact assessment as $52.25 \in$ (excluding VAT). IMACE (the European Margarine Association) advised ICF that fatty acid profiling for food products costs $50 \in$ to $100 \in$ per profile (with an average price of about $65 \in$).	Country research
		Evidence on product reformulation cycles	In the US, A major producer of processed foods reported that reformulating in less than a year cost \$25 million for 187 product lines. EU level associations indicated a 2 to 3 years reformulation cycle	Country research Interviews with EU associations

		Labelling costs/SKU	The potential costs of relabelling under Option 2 have been estimated using the following assumptions - Labelling is required for all pre-packed food products; - Food product labels for 26,894,250 SKUs will need to be changed (based on the RAND Europe estimate used in the impact assessment on general food labelling) - Labels need to be changed over a 2 year period. Based on the estimates by RAND Europe, 82% of labels would be changed over a 2 year period, suggesting that an enforced change would be required for 18% of food labels; - The average cost per label changed is assumed to be FUR 1500	EC (2008) COMMISSION STAFF WORKING DOCUMENT accompanying the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the provision of food information to consumers IMPACT ASSESSMENT REPORT ON GENERAL FOOD LABELLING ISSUES {COM(2008) 40 final} EC (2015) COMMISSION STAFF WORKING DOCUMENT. Results of the Commission's consultations on 'trans fatty acids in foodstuffs in Europe'
Internal market	Extent of current differences in standards between Member States Effect of current situation on free circulation of goods and legal certainty Trends in industrial trans fats policy, including current legislative proposals and voluntary initiatives in	Number of MS with legal limits on industrial trans fats /partly hydrogenated oils	5 (Hungary, Denmark, Latvia, Austria, Lithuania)	Country research, EC & JRC documentation
		Number and % of businesses engaged in voluntary agreements (all businesses/ SMEs)	As detailed in Table 53	Country research, evidence from interviews with EU level associations
		Value and % of EU production covered by voluntary agreements	For VAs: as detailed in Table 530	Country research, evidence from interviews with EU level associations
	MS. Effects of this baseline trend on free circulation and legal certainty Effect of proposed options on free circulation and legal certainty Potential winners and losers, by Member States and type of business	'Spillover effects' from national action – e.g. FBOs providing reformulated product to all Member States	Products with high concentration of industrial trans fats produced in eastern Europe are found in Western Europe in supermarkets	http://bmjopen.bmj.com/content/4/5/ e005218
-----------	---	--	--	---
	Current rates of consumption of industrial trans fats in different products, MS	Number and proportion of products of different types containing different levels of industrial trans fats	NA	
Consumers	and societal groups Attributes of products containing industrial trans fats vs. alternatives Price of products containing industrial trans fats vs alternatives Effects of each option on: - Type and choice of available products - Consumer prices - Effect on quality and nature of 'emblematic' products (e.g. doughnuts, eclairs,	% price differential between products with industrial trans fats and alternatives	Especially in eastern Europe some producers can have the premium brand without trans fat and the cheap/family pack option with. Some margarine companies in Canada offered products with a low trans fats level while continuing to sell products with a high level at a lower price.	Ricciuto et al., referenced in Downs, S.M., Thow, A.M. and Leeder, S.R., 2013. The effectiveness of policies for reducing dietary trans fat: a systematic review of the evidence. Bulletin of the World Health Organization, 91(4), pp.262-269h
		Product attributes	Some food products and sub-sectors appear to experience greater challenges than others. For example, substitution of oils and fats for frying appears to be achievable relatively easily and with limited effect on quality and taste, but with potential implications for cost. On the other hand, producers of baked goods report greater challenges in finding alternative ingredients and formulations which replicate the attributes of their products.	Public Health Law Center, (2008) Trans fats bans: Policy options for eliminating the use of artificial trans fats in restaurants

	chocolate, confectionery)		Available evidence suggests that reductions in industrial trans fats have had limited effect in increasing consumer prices in the EU to date. For example:	
			- In Denmark, a recent report suggests that there was no increase in the price levels of the affected products. The product supply to the Danish market also appears not to have been affected. The Danish industry did not complain about financial losses following the industrial trans fats limit.	
		Impact on consumer prices of affected products (%)	- IMACE reports that no impact on the price of products has been identified to date in its sector, even though industrial trans fats have largely been eliminated.	Interviews with EU level associations Country research
			- A Dutch ingredients supplier to the bakery industry indicated that reformulation of bread improvers, bread and pastry mixes required substantial effort and investment, but that, even if fully passed on to consumers, these costs are only likely to have increased prices by 0.04-0.09%.	
			 A margarine producer in Austria estimated that reformulation of domestic margarines may have increased prices by 1-2%. 	
SSS	Industry structure and types and sizes of firm affected Extent of intra- and	Number of SMEs/ large businesses involved in manufacture of products with industrial trans fats	Number of enterprises by food industry sector likely to have products containing industrial trans fats.	Eurostat Assumptions in lieu of evidence
stry oetitivene	extra-EU trade in products affected Effects of options on: - Differences in costs of	% of relevant products traded between Member States/ internationally	NA	
Indu	production and product attributes for different	Product innovation rates	NA	

	sizes of firm, different Member States, EU vs non EU firms - Ability of producers to access export markets - Degree of competition from imports in domestic market - Ability of business to innovate Effects on overall food sector and particular sub-sectors, including innovation effects Did action on industrial trans fats lead to changes in product prices/sales	Research evidence on product price/sales effects following reformulation	 Available evidence suggests that reductions in industrial trans fats have had limited effect in increasing consumer prices in the EU to date. For example: In Denmark, a recent report suggests that there was no increase in the price levels of the affected products. The product supply to the Danish market also appears not to have been affected. The Danish industry did not complain about financial losses following the industrial trans fats limit. IMACE reports that no impact on the price of products has been identified to date in its sector, even though industrial trans fats have largely been eliminated. A Dutch ingredients supplier to the bakery industry indicated that reformulation of bread improvers, bread and pastry mixes required substantial effort and investment by the ingredients supplier, but that, even if fully passed on to consumers, these costs are only likely to have increased prices by 0.04-0.09%. A margarine producer in Austria estimated that reformulation of domestic margarines may have increased prices by 1-2%. 	Country research & interviews
ion and administra	Number of businesses affected by each option Actions and information needed to comply with	Number of businesses required to understand the rules; number required to provide information	See 'Number of active food businesses within scope of each option'	Eurostat + assumptions on number of affected businesses under each option

e T c ir	each option Fime and associated costs resulting from nformation requirements		No information was found on such time burdens in the literature review or stakeholder interviews, so it is necessary to make an assumption about the likely burden:	
	Effect of options on the overall complexity of	Time/effort/other costs incurred per business	Assumed time taken per business to understand the requirements and verify requirements = 1 hour	Assumptions + Eurostat data for labour costs
	egislation and egulatory requirements vithin EU and its 4ember States		Average cost per hour is based on Eurostat data for labour costs (including social security contributions and other non-wage labour costs) for manufacturing and accommodation/ food service sectors for each country.	
		Data compilation / verification and reporting costs incurred by intermediaries	NA	
		Cost of information provision (€)	NA	
		Inspection and verification costs incurred by (i) public authorities (ii) via private assurance mechanisms within the food chain	NA	
		Reporting costs	NA	

International trade	Extent of current trade (exports and imports) of products containing industrial trans fats Expected effects of each option on: - Competitiveness of, and demand for EU exports - Competitiveness of, and EU demand for, imports from outside the EU - International regulatory convergence	NA	Little evidence was found from the literature review to suggest that impacts on trade and competitiveness are likely to be significant, and in general the stakeholders interviewed did not express this as a concern.	Country research
Enforcement needs an methods for each policy option Implications for product monitoring, including technical difficulties of monitoring presence of industrial vs ruminant trans fats Administrative burden on public authorities (implications for staffing, time and cost of implementation and enforcement activities	Enforcement needs and methods for each policy option Implications for product monitoring, including technical difficulties of monitoring presence of industrial vs ruminant trans fats Administrative burden on public authorities (implications for	Cost of establishing the policy	 The scale of costs is difficult to estimate precisely. In order to estimate the possible scale of these costs, we assume that: Each Member State will devote staff time averaging one full time equivalent to establish and promote the policy and to handle enquiries from business, with the exception of Denmark, Latvia, Hungary and Austria for Option 1b; Staff time is valued using Eurostat labour cost data for professional, scientific and technical activities; There will be additional costs for overheads, publications, events and website materials. These are assumed to amount to 50% of labour costs. 	Assumptions + Eurostat data for labour costs
	staffing, time and cost of implementation and enforcement activities)	Cost of consumer information campaigns	Assumption that the labelling option is accompanied by a mass media campaign, focused in those EU Member States where legislation is currently lacking, and designed to reach the quarter of the EU population most vulnerable to the health impacts of industrial trans fats consumption, and using the per capita cost of USD 2.27 estimated by Sassi et al, a	Sassi, F. et al. (2009), "Improving Lifestyles, Tackling Obesity: The Health and Economic Impact of Prevention Strategies", OECD Health Working Papers, No. 48, OECD Publishing, Paris. http://dx.doi.org/10.1787/22008743

	mass media campaign designed to raise awareness of trans fats across the EU would involve a one-off cost in the order of EUR 260 million across the EU28.	2153
	Available evidence, though limited, gives some indication of the resources likely to be needed for monitoring and enforcement:	
Cost of monitoring and	 In Latvia, the Food and Veterinary Service estimated that it will need 86 000 EUR to conduct additional controls and to commission laboratory tests in 2018. This cost was estimated to fall to 63 000 EUR annually from 2019. The figures are based on plans for 1000 inspections and 100 product tests in 2018, representing 13% and 1.3% respectively of the 7800 establishments estimated to be possible using fats containing trans fats. In Austria, the cost of examining a sample for trans fatty acids at the AGES is about € 130, depending on the official fee tariff. Costs can vary depending on the matrix. In addition there are about € 6 for the 	Country research Ratnayake WMN, L'Abbe MR, Farnworth S, Dumais L, Gagnon C, Lampi B et al. Trans fatty acids: current contents in Canadian foods and estimated intake levels for the Canadian population. Journal of AOAC International.
Cost of monitoring and enforcement	sample administration and approx. € 30 for the evaluation. - In Canada, the director of the Trans Fat Monitoring Programme, estimated that the administrative burden of monitoring arrangements linked to voluntary reformulation measures and labelling requirements had amounted to millions of Canadian dollars annually, and was likely to have greatly exceeded the costs of a regulatory approach. As well as in-kind support provided by the Canadian Heart and Stroke Foundation, the programme had funded three regional laboratories and employed several staff members for three years, including a research scientist, three chemists and a senior policy officer at Health Canada. Other costs include laboratory instruments, and the purchase of market/sales data at a cost of C\$ 500,000. Ratnayake et al (2009) argued that the costs of monitoring the voluntary reformulation policy were	2009;92(5):1258–76. Hendry VL, Almíron-Roig E, Monsivais P, Jebb SA, Benjamin Neelon SE, Griffin SJ et al. (2015) Impact of regulatory interventions to reduce intake of artificial trans–fatty acids: a systematic review.American Journal of Public Health. 2015;105(3):e32- e42.

			likely to have exceeded those of enforcing a trans-fat ban, because of the relatively complex measurement of population trans-fat intake required.	
			- In the US, a paper by Hendry et al (2015) argued that the cost of monitoring and evaluating a labelling policy includes costs associated with product and population-intake analyses, and that a labelling policy is likely to be the most costly to implement effectively.	
		Compliance rates	Compliance rates vary by country, both in countries with legislation on industrial trans fats and countries where voluntary agreements are in place. E.g. In the UK voluntary agreement seems to be working while in Poland it had no real impact on industrial trans fats content in food.	https://www.researchgate.net/public ation/254384473_Reformulation_for _healthier_food_a_qualitative_assess ment_of_alternative_approaches
	Number of SMEs and micro-enterprises producing food products containing trans fats Value of trans fat related output among SMEs and micro- enterprises Burden of investment and operating costs (Q1) on SMEs and micro-enterprises Ability of SMEs and micro-enterprises to adapt/ absorb costs	Number of SMEs and micro- enterprises (i) directly obligated (ii) indirectly influenced by each option	The EU food and drink industry includes more than 280,000 SMEs which generate almost 50% of the food and drink industry turnover and value added and provide two thirds of the employment of the sector.	
		Number of SMEs and micro- enterprises producing food products containing trans fats	NA	
terprises		Value of trans fat related output among SMEs and micro-enterprises (€, % of total output)	NA	
SMEs and micro-ente		Ability of SMEs and micro- enterprises to adapt/ absorb costs	The evidence indicates that SMEs are likely to incur significant costs in order to comply with the measures. The views of stakeholders are that most SMEs will address the requirements by switching ingredients, relying on suppliers of oils and fats. This applies notably to food service SMEs: in some countries such as Austria or Denmark alternative oils have been purchased for frying that effectively enable compliance with the 2% limit on industrial trans fats content.	Validation consultation

			However, the evidence also indicates that challenges will be greater in the food manufacturing industry, where SMEs are likely to encounter difficulties when reformulating their products. While business associations, mainly informed by the experience of very large manufacturers, may provide supporting information to SMEs, it is not certain that SMEs will be able to profit from the solutions developed by larger players in order to achieve compliance.	
	Social Impact			
	Judgement criteria		Judgement criteria	
	Current health impacts of industrial trans fats intake Effect of each option on:	Number of incidences of cardiovascular disease in EU, by MS and by social group	In 2015, there were just under 11.3 million new cases of CVD in Europe and 6.1 million new cases of CVD in the EU. In 2015, more than 85 million people in Europe were living with CVD and almost 49 million people were living with CVD in the EU.	http://www.ehnheart.org/cvd- statistics.html [pag 55]
umer health	Extent of reduction of trans fat intake Health benefits arising from these reductions Consumption of alternatives and their health effects Health of different social groups Health inequalities	% increase in risk of coronary heart disease for consumers with >2%trans fats intake	The consumption of trans fats increases the risk of heart disease more than any other macronutrient compared on a per-calorie basis. The risk of dying from heart disease is higher when 2% of the daily energy intake is consumed as trans fats instead of an exchange of carbohydrates, saturated fatty acids, cis monounsaturated fatty acids and cis polyunsaturated or other types of fatty acids, respectively if the exchanged amounts of calories remain the same (evidence available quantifies the increase in risk between 20-32%). Note that a more recent study from the same author (second source) shows an inverse relationship. However the study population is already sick individuals hence results should not be directly used for general population.	https://www.nature.com/ejcn/journal /v63/n2s/full/1602973a.html https://academic.oup.com/eurheartj/ article/37/13/1079/2398446/Natural- trans-fat-dairy-fat-partially- hydrogenated http://www.sciencedirect.com/scienc e/article/pii/S1567568806000262 [paying article]
Con		Overall intake of industrial trans fats as % of calorific	Intake by country and age group used in the JRC study	http://ajcn.nutrition.org/content/104 /5/1218/suppl/DCSupplemental

Social Impact	Social Impact			
Judgement criteria		Judgement criteria		
	intake			
	Number and % of consumers with >2% calorific intake from trans fats	Intake by country and age group used in the JRC study	http://ajcn.nutrition.org/content/104 /5/1218/suppl/DCSupplemental	
	Scale of risk reduction delivered by reformulation (e.g. whether reformulation typically elevates saturated fat content)	Product reformulation that involves the removal of trans fats from food may simply lead to higher levels of saturated fatty acid, thereby limiting the public health effect of trans fats policies. However, our findings indicate that reformulation resulted in the removal of trans fats with little change in saturated fatty acid content in the majority of products; bakery products were an exception. Moreover, the fatty acid profile of many reformulated products improved while the total fat content remained constant. The resulting health benefits may exceed those associated with simply removing trans fats from food.	http://www.who.int/bulletin/volumes /91/4/12-111468/en/	
	Expected reduction in incidences of coronary heart disease resulting from each option (total and by social group)	Estimated through the help of the JRC model. The model does not allow to distinguish impacts by different socio-economics groups.	http://ajcn.nutrition.org/content/104 /5/1218.full own calculations based on new assumptions	
	Costs associated with	Direct healthcare costs: costs related to the use of health resources (i.e., primary care costs, outpatient costs, emergency costs, and medication used during the hospitalization). The costs are based on the European Cardiovascular Disease Statistics 2012.	Nichols et al. European Cardiovascular Disease Statistics 2012. Brussels (Belgium): European Heart Network, European Society of Cardiology; 2012	
	coronary heart disease	Indirect healthcare costs: costs related to the disease, namely loss of productivity and informal care. The costs are based on the European Cardiovascular Disease Statistics 2012.	http://ajcn.nutrition.org/content/104 /5/1218.full	

	Social Impact			
	Judgement criteria		Judgement criteria	
	Current availability of information on industrial trans fats content of food, health impacts of industrial	% of relevant products giving information on trans fats content	NA	
	trans fats Current consumer awareness of industrial trans fats and health impacts			
ation	Effects of each option on:	% of consumers aware of trans fats and health impacts	The majority of Europeans do not know about trans fats, industrial trans fats or ruminant trans fats and partially hydrogenated or fully hydrogenated oils. Also, only a small fraction of people seems to be concerned about trans fats intake	https://ec.europa.eu/food/sites/food/ files/safety/docs/fs_labelling-
mer informa	Provision of consumer information			
	Levels of consumer awareness			Country research
Consu	Evidence on labelling changing purchase / consumption choices			

Environmental Impacts, Member State Plans and Activities, Other Significant Impacts				
Judgement crite	eria		Judgement criteria	

	Environmental Impacts, Member State Plans and Activities, Other Significant Impacts			
	Judgement criteria		Judgement criteria	
	Changes in food content and production methods resulting from shift away from trans fats Change in palm oil use resulting from different options - Change in use of other ingredients Environmental impact of changes in palm oil use - Environmental impacts of other ingredients Environmental impacts of production process (energy use, climate impacts)	substitutes for partly hydrogenated oils	 Evidence from Denmark, after the introduction of the trans-fat ban, indicates that saturated fats (including palm oil) were the main replacement in 66% of products. Similarly, in Canada, the President of the Baking Association, Canada, advised in interview that in the baking industry, pre 2002, most oils used were vegetable oils but now they have primarily been replaced with palm fats and oils. Most of the trans fat-free alternatives being used by the baking industry come from palm oil. Consultees in the food industry, such as FEDIOL and IMACE, stressed that their members had already taken action to eliminate industrial trans fats, using palm oil and other alternatives, and that they did not expect a major increase in demand for palm oil as a result of future policy. 	http://www.euro.who.int/data/ass ets/pdf_file/0010/288442/Eliminating -trans-fats-in-Europe-A-policy- brief.pdf?ua=1 Interviews with EU level associations Country research
Environmental impacts		Environmental impacts of palm oil	Consultees in the food industry argued that the sector is taking action to source ingredients sustainably, and that reformulation using palm oil need not have negative impacts on the environment. For example, the percentage of certified sustainable palm oil used by FEDIOL members has continued to increase over time, reaching 60% at the end of 2016, albeit with a slower growth rate compared to the previous year. 7.2 million tons of palm oil were imported into the EU in 2016, of which about 50% were refined by FEDIOL companies.	FEDIOL (2017). Palm Oil Monitoring. FEDIOL (2017) EU vegetable oils' sector works towards meeting the 2020 commitments on sustainable palm oil. Press Release. www.fediol.eu

	Environmental Impacts, M	Member State Plans and Activiti	es, Other Significant Impacts	
	Judgement criteria		Judgement criteria	
			Similarly, IMACE stressed that the margarines and spreads industry is committed to using sustainable palm oil, such that increased use of palm oil should not lead to deforestation. AIBI, CAOBISCO, FEDIMA, FEDIOL and IMACE are members of the European Sustainable Palm Oil Advocacy Group which aims to support the uptake of sustainable palm oil in Europe and to communicate scientific and objective facts and figures on environmental, nutritional and functional aspects.	
tate plans and	Legislative proposals and initiatives underway in Member States	Number of MS considering legislation on industrial trans fats	Romania and Slovenia have notified to the Commission draft national legal measures setting a limit to industrial trans fats content. During the validation consultation most EU MS were cited by at least one consultee as likely to act in the absence of EU action. At the same time, consultees indicated in their majority that they did not expect the industrial trans fats problem to be resolved in case there was no EU action.	Validation consultation
Member St activities		Number of MS considering voluntary agreements/ other initiatives	Contributors to the validation consultation mentioned Denmark, Poland, Lithuania, Italy, Sweden and Germany.	Validation consultation

	Environmental Impacts, Member State Plans and Activities, Other Significant Impacts													
	Judgement criteria													
Other significant impacts	Any other impacts judged to be significant in screening exercise	NA												

Table 61 Profile of the existing voluntary agreements on iTFAs

NACE Rev. 2 classification	# businesses firms	Sector structure	EU rep. association	Characteristics of the membership	Progress made	Opportunity for change through EU V.A.
Manufacture of oils and fats	7,856	Relatively concentrated sector	FEDIOL	Membership through national organisations in Belgium, Denmark, Finland, France, Germany, Hungary, Italy, the Netherlands, Poland, Spain and the UK. Including corporate members, reach extends to: Austria, the Czech Republic, Greece, Portugal, Romania and Sweden. This covers 80% of the sector No presence in BG, HR, CY, EE, IE, LV, LT, LU, MT, SK, SI. Number of members are SMEs. Estimated approx. 7-8% of total value/turnover of the sector.	Members have been supporting industry initiatives to reduce trans fats in vegetable oils and fats. The average trans fats content in vegetable oils and fat formulations has decreased over the last 15 years from 5.3 to 1% on fat basis, which corresponds to a relative decrease of 81%.	Very low Gains have been already achieved.
Manufacture of margarine and similar edible fats	103	Relatively concentrated sector	IMACE	Membership through national organisations in Austria, Denmark, Greece and Italy, as well as Norway and Switzerland. Including corporate members, reach extends to: Belgium, the Netherlands and Germany. No presence in BG, HR, CY, CZ, EE, FI, FR, HU, IE, LV, LT, LU, MT, PL, PT, RO, SK, SI, ES, SE, UK. 75% of IMACE members are SMEs.	Voluntary code for several years and reports that its members have already largely taken action to phase out TFAs in their products. Activities have achieved good results with average trans fats content of 1.2% achieved for consumer products and less than 2% for B2B	Very low Gains have already been achieved

NACE Rev. 2 classification	# businesses firms	Sector structure	EU rep. association	Characteristics of the membership	Progress made	Opportunity for change through EU V.A.
					products in 2016.	
Manufacture of bread; manufacture of fresh pastry goods and cakes ⁴	139,199	Fragmented sector	FoodDrinkEurope	FDE has members across the whole EU. Number of members are SMEs. For the industry as a whole in Europe, SMEs make up 99.1% of enterprises and about half of the sector's turnover (49.5%).	The large majority of members are below the threshold of 2% of the total fat content.	Low Gains have been achieved where possible. Reach is limited due to mixed nature of the membership
Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes ⁴	6,401	Fragmented sector, some big players and many SMEs	CAOBISCO	CAOBISCO does not cover LV, LT, EE, CZ, BG, EL, MT, CY, SE, DK, NL, HR, FI, LU, RO, SK. The country federations already participating in its voluntary initiative are Belgium, France, Germany, Italy, Spain, the UK and Poland. Around 99% SMEs.	The organisation has set up a voluntary commitment to reduce TFAs in products below 2% of the total fat content. Most members have already achieved the target and those who have not are on track to achieve it in 2017. Some national federations have not signed up.	Low Some gains achieved already, but possibly to improve by including remaining members
Manufacture of cocoa, chocolate and sugar confectionery ⁴	6,246	Fragmented sector, some big players and many SMEs	CAOBISCO	CAOBISCO does not cover LV, LT, EE, CZ, BG, EL, MT, CY, SE, DK, NL, HR, FI, LU, RO, SK. The country federations already participating in its voluntary initiative are Belgium, France, Germany, Italy, Spain, the UK and Poland. Around 99% SMEs.	The organisation has set up a voluntary commitment to reduce TFAs in products below 2% of the total fat content. Most members have already achieved the target and those who have not are on track to achieve it in	Low Some gains achieved already, but possibly to improve by including remaining members

NACE Rev. 2 classification	# businesses firms	Sector structure	EU rep. association	Characteristics of the membership	Progress made	Opportunity for change through EU V.A.
					2017. Some national federations have not signed up.	
Manufacture of condiments and seasonings	1,941	Relatively concentrated sector	FoodDrinkEurope	FDE has members across the whole EU. Number of members are SMEs. For the industry as a whole in Europe, SMEs make up 99.1% of enterprises and about half of the sector's turnover (49.5%).	The majority of members are below the threshold of 2% of the total fat content.	Low Gains have been achieved where possible. Reach is limited due to mixed nature of the membership
Processing and preserving of potatoes	780	Fragmented sector, some big players and many SMEs	FoodDrinkEurope	FDE has members across the whole EU. Number of members are SMEs. For the industry as a whole in Europe, SMEs make up 99.1% of enterprises and about half of the sector's turnover (49.5%).	The majority of members are below the threshold of 2% of the total fat content.	Low Gains have been achieved where possible. Reach is limited due to mixed nature of the membership
Restaurants and mobile food service activities	915,668	Highly fragmented sector: 91% micro- enterprises, 99.5% SMEs	HOTREC Food Service Europe	HOTREC has members across the whole EU. SMEs are strongly represented in HOTREC membership through its member associations. For the sector as a whole, 91% are micro- enterprises and 99.5% are SMEs.	Few isolated national initiatives. FIPE (Italian member) co-signed an agreement with the Italian food industry and the national authorities concerning the reduction of industrial trans fats contents in food for young people. It exclusively concerns categories of food from	Low Industry is highly fragmented, and does not perceive i industrial trans fats has an issue it is its responsibility to solve; dependent on suppliers

NACE Rev. 2 classification	# businesses firms	Sector structure	EU rep. association	Characteristics of the membership	Progress made	Opportunity for change through EU V.A.
					the processed/manufacturi ng industry (e.g. breakfast cereals, biscuits, etc.)	
					DEHOGA (German member of HOTREC) engaged in an initiative with the Federal Ministry of Agriculture and Food that aims to reduce TFAs in food.	

ANNEX 31: Validation consultation by ICF, survey instrument

A7.1 Introduction

Thank you for your interest in the consultation. Its purpose is to allow stakeholders to verify and challenge the inputs, assumptions and conclusions of ICF's study.

The study has considered the impact of potential EU action targeting industrially produced transfatty acids (iTEAs) (ruminant TFA sources generally contribute little to overall TFA intake). The policy options considered are:

Option 1: Setting a limit on the level of iTFAs in food (at 2% of the total fat content), either via a voluntary agreement between the EU and the industry or via new EU legislation.

Option 2: **Imposing a labelling obligation** to specify the product's TFA content in the nutrient declaration that is provided on the product's packaging.

Option 3: **Prohibiting the use of partly hydrogenated oils (PHOs) in food**, either via a voluntary agreement between the EU and the industry or via new EU legislation.

The potential impacts of these options have been assessed by comparing the expected 'with policy' situation with a 'no policy' scenario in which there is no new EU action on TFAs.

This consultation is structured as follows. First, you are asked to give your opinion on how the iTFA situation will evolve if no new action is taken at EU level. You are then invited to comment on the alternative policy options and their health, economic and environmental impacts. Finally, you will have the opportunity to provide any information that you have that would justify revision of our analysis.

You may provide your responses in other languages than English.

A7.2 About you

1) I am responding to this consultation as:

- () An individual
- () A representative of a business or organisation

2) What type of organisation do you represent?

- () A food manufacturing/ processing business
- () A food service business
- () A food distribution/ retail business
- () A food sector association
- () A public authority
- () An international organisation
- () Academia
- () A consumer organisation
- () A public health organisation
- () An environmental organisation

3) If you are representing and organisation from the food business, please specify the subsector:

- () Biscuits / preserved cakes and pastries
- () Chocolates / confectionery
- () Dairy products
- () Drinks
- () Food distribution / wholesale / retail
- () Fresh cakes / pastries / bakery products
- () Ice cream
- () Ingredients for the food sector
- () Margarines and spreads
- () Meat and fish products
- () Oil and fats
- () Potato products
- () Ready meals
- () Restaurants / food services
- () Snacks
- () Soups / sauces / condiments
- () Other (please specify)

4) If "other", please specify:

5) What is the size of your organisation?

- () Less than 250 employees
- () More than 250 employees

6) Please indicate which share of your membership (in %) consists of SMEs:

7) Please indicate in which EU Member State you are based:

- () Austria
- () Belgium
- () Bulgaria

- () Croatia
- () Cyprus
- () Czech Republic
- () Denmark
- () Estonia
- () Finland
- () France
- () Germany
- () Greece
- () Hungary
- () Ireland
- () Italy
- () Latvia
- () Lithuania
- () Luxembourg
- () Malta
- () Netherlands
- () Poland
- () Portugal
- () Romania
- () Slovakia
- () Slovenia
- () <u>Spain</u>
- () Sweden
- () United Kingdom
- () Not EU-based

8) In which country are you based?

A7.3 General

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITFA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

9) Levels of iTEA in food products sold in the EU have reduced significantly in recent years. Assuming no new EU policy on this topic, the most likely future scenario is that:

() iTEA levels in food will remain at, or close to, today's levels.

() iTFA levels will fall until they disappear almost completely from the food chain in 15 years.

() ITFA levels will fall until they disappear almost completely from the food chain in 10 years.

() None of the above. Please indicate what is likely to happen and why::

() Unsure

Please explain:

10) To what extent do you agree with the following statement: "The principal source of iTFAs in food is partially hydrogenated vegetable oils (PHOs), including soybean, cottonseed and other liquid oils."

() Strongly disagree

() Disagree

() Neutral

() Agree

() Strongly agree

() Don't know

Comments:

	Strongl Y disagre e	Disagre e	Neutra I	Agre e	Strongi y agree	Don' t kno w
A food manufacturer/process or that sells its products in more than one country will generally use the same recipe/formulation for the same product in all of those markets	0	()	()	()	()	()
A food manufacturer/process or that reformulates a product to reduce iTEA content in order to comply with one Member State's legislation will use that reformulation in other Member States.	()	()	()	()	()	()

11) To what extent do you agree with the following statements:

Comments:

12) If the EU does not act, which countries will adopt new public policies to reduce iTFA intake?

- [] Austria
- [] Belgium
- [] Bulgaria
- [] Croatia
- [] Cyprus
- [] Czech Republic

[] Denmark

- [] Estonia [] Finland [] France [] Germany [] Greece [] Hungary
- [] Ireland
- [] Italy
- [] Latvia
- [] Lithuania
- []Luxembourg
- [] Malta
- [] Netherlands
- [,] Poland
- []Portugal
- [] Romania
- [] Slovakia
- [] Slovenia
- [] Spain
- [] Sweden
- [] United Kingdom

	Biscuits preserved cakes and pastries	Chocolates / confectionery	Dairy products	Drinks	Food distribution/ wholesale / retail	Fresh cakes / pastries / bakery products	Ice cream	Ingredients for the food sector	Margarines and spreads	Meat and fish products	Oil and fats	Potato products	Ready meals	Restaurants / food services	Snacks	Soups / sauces / condiments
EU-wide	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Austria	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Belgium	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Bulgaria	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Croatia	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Cyprus	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Czech Republic	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

13) If the EU does not act, which food sectors in which countries are likely to take additional concerted measures to further reduce ITFA content of food?

	Biscuits preserved cakes and pastries	Chocolates / confectionery	Dairy products	Drinks	Food distribution/ wholesale / retail	Fresh cakes / pastries / bakery products	Ice cream	Ingredients for the food sector	Margarines and spreads	Meat and fish products	Oil and fats	Potato products	Ready meals	Restaurants / food services	Snacks	Soups / sauces / condiments
Denmark	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Estonia	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Finland	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
France	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Germany	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Greece	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Hungary	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Ireland	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

	Biscuits preserved cakes and pastries	Chocolates / confectionery	Dairy products	Drinks	Food distribution/ wholesale / retail	Fresh cakes / pastries / bakery products	Ice cream	Ingredients for the food sector	Margarines and spreads	Meat and fish products	oil and fats	Potato products	Ready meals	Restaurants / food services	Snacks	Soups / sauces / condiments
Italy	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Latvia	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Lithuania	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Luxembourg	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Malta	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Netherlands	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Poland	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Portugal	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

	Biscuits preserved cakes and pastries	Chocolates / confectionery	Dairy products	Drinks	Food distribution/ wholesale / retail	Fresh cakes / pastries / bakery products	Ice cream	Ingredients for the food sector	Margarines and spreads	Meat and fish products	Oil and fats	Potato products	Ready meals	Restaurants / food services	Snacks	Soups / sauces / condiments
Romania	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Slovakia	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Slovenia	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Spain	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
Sweden	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]
United Kingdom	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]	[]

General - part 2

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on IIEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

14) If the European Commission and EU level business associations jointly agreed a voluntary agreement to reduce ITFA levels in food products, what level of participation would you expect from businesses that have not already reduced ITFA levels in their products:

() Low (

() Medium (21-50% of businesses in relevant food sub-sectors)

() High (51-100% of businesses in relevant food sub-sectors)

Comments:

15) Would you expect rates of participation in a voluntary agreement to differ between suppliers of prepacked and non-prepacked foods?

() Higher rate of participation for prepacked compared to non-prepacked food businesses

() Higher rate of participation for non-prepacked compared to prepacked food businesses

() No difference in rates of participation

() Don't know

16) Please indicate the scale of the reduction in iTEAs in food products that an EU voluntary agreement can be expected to deliver, compared to current levels

0	[]	100

[] Don't know

17) How likely are each of the following possible consequences of requiring the inclusion of a food product's TFA content in the nutrient label?

	Very unlikely	Unlikely	Neutral	Likely	Very Likely	Don't know
Consumers will read	0	0	()	()	()	0

and understand the information on the label and reduce their consumption of products high in iTEA						
Consumers will read and understand the information on the label but they will not change their consumption habits	()	0	0	0	0	0
Consumers will read but they will not understand the information on the label and will not change their consumption habits	()	()	()	()	()	()
Consumers will ignore the information on the label and will not change their consumption habits.	()	()	()	()	()	()
TFA labelling will lead to overall healthier product choices of	()	()	()	()	()	()

consumers						
TFA labelling will not lead to overall healthier product choices	()	()	()	()	()	()
TFA labelling will not influence the overall healthiness of product choices	()	()	()	()	()	()

18) Partially hydrogenated oils (PHOs) are not defined in EU law or in the Codex Alimentarius. The US Food & Drug Administration (FDA) has defined PHOs as, "fats and oils that have been hydrogenated, but not to complete or near complete saturation, and with an IV greater than 4 as determined by a method that is suitable for this analysis (e.g., ISO 3961 or equivalent)." In this definition 'IV' means 'iodine value' or iodine number. The FDA explains that, "the IV of a fat or oil is not a direct measure of the TFA content, but is a measure of the degree of unsaturation. In your opinion is the FDA's definition of PHOs applicable to the European market?

() No

() Yes

() Don't know

6.1.1 19) If "No" please explain:

(untitled)

You have now completed the general section of the consultation. The remaining questions focus on specific subjects. You may choose to respond to all of them, or to some of them only.

20) Which of the survey sections below would you like to respond to? You may select as many as you like.

- [] Health impacts
- [] Economic impacts
- [] Consumer impacts
- [] Internal Market and trade impacts
- [] Impacts on SMEs
- [] Environmental impacts

Health impacts

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

21) The European Commission's Joint Research Centre has estimated that current adult ITEA intake (as a weighted average across the EU) is 0.3% of total energy intake. In your view is this estimate:

() An overestimate of the current average iTEA intake in the EU (please provide your estimate and source):

() An underestimate of the current average **ITEA** intake in the EU (please provide your estimate and source):

() A reasonable estimate

() I don't know

22) Some socio-economic groups have a greater iTFA intake than others, and are at greater risk of suffering negative health effects. To what extent do you agree with each of the following statements:

	Strongly disagræ	Disagræ	Neutral	Agree	Strongly agree	Don't know
EU legislation to regulate ITEA content of foods / ban use of PHOs will protect all socio-economic	()	()	()	()	()	()

groups from the negative health effects of iTFA intake						
Mandatory labelling of TFA content of food will protect all socio-economic groups from the negative health effects of ITEA intake	0	()	()	0	()	0
An EU wide voluntary agreement to limit ITEA content of foods / remove PHOs will protect all socio-economic groups from the negative health effects of ITEA intake	()	()	()	0	()	0

Comments:

23) To what extent do you agree with the following statements on the social benefits (improved health outcomes and reduced healthcare costs) of combining different policy measures with a requirement for the TFA content of a food product to be stated on the label:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
The social benefits of a voluntary agreement will be increased if products' TFA levels must be specified on the nutrient label.	()	()	()	0	()	()
The social benefits of a legal limit on TFA content will	()	()	()	()	()	()

be increased if products' TFA levels must be specified on the nutrient label.			
nachene laben			

Economic impacts for businesses

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

24) ICF has estimated that, on average, food business operators (food service and manufacturing) will each spend one hour of staff time reading and understanding guidance issued on how to comply with legislation regulating <u>iTFA</u> content of food. Is this estimate:

() Too low (please provide your estimate, what kind of business it applies to, and its source):

() Too high (please provide your estimate, what kind of business it applies to, and its source): _____*

() A reasonable estimate

() Don't know

25) ICF has estimated the cost of a test to determine the iTFA/TFA content of a food product at EUR 65 per test. Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

26) ICF has estimated that a typical food business commissioning a test of a product's TFA content will spend an average one hour of staff time arranging each test and reviewing the results. Is this estimate:

() This estimate is too low (please provide your estimate and its source.):

() This estimate is too high (please provide your estimate and its source):

() This is a reasonable estimate

() Don't know

27) Which sectors of the industry are most likely to be affected by:

An EU legal limit on iTFA content in food?

[] Biscuits / preserved cakes and pastries

[] Chocolates / confectionery

[] Dairy products

[] Drinks

[] Food distribution / wholesale / retail

[] Fresh cakes / pastries / bakery products

[] Ice cream

[] Ingredients for the food sector

[] Margarines and spreads

[] Meat and fish products

[] Oil and fats

[] Potato products

[]Ready meals

[] Restaurants / food services

[] Snacks

[] Soups / sauces / condiments

[] Other (please specify):

6.1.1.1 An EU ban on PHOs?

[] Biscuits / preserved cakes and pastries

[] Chocolates / confectionery

[] Dairy products

[]Drinks

[] Food distribution / wholesale / retail

[] Fresh cakes / pastries / bakery products

[] Ice cream

[] Ingredients for the food sector

[] Margarines and spreads

[] Meat and fish products

[] Oil and fats

[] Potato products

[] Ready meals [] Restaurants / food services [] Snacks [] Soups / sauces / condiments [] Other (please specify):

28) Given progress already achieved to reduce iTFA levels in a number of countries, in which countries would the industry be most likely to be affected by:

*

An EU legal limit on iTFA content in food?

[] Austria

[] Belgium

[] Bulgaria

[] Croatia

[] Cyprus

[] Czech Republic

[] Denmark

[]Estonia

[] Finland

[] France

[] Germany

[] Greece

[] Hungary

[] Ireland

[] Italy

[] Latvia

[] Lithuania

[]Luxembourg

[] Malta

[] Netherlands

[]] Poland

[] Portugal

[] Romania

[] Slovakia

- [.] Slovenia [.] <u>Spain</u>
- [] Sweden
- [] United Kingdom

An EU ban on PHOs?

- [] Austria
- [] Belgium
- [] Bulgaria
- [] Croatia
- [] Cyprus
- [] Czech Republic
- []Denmark
- []Estonia
- [] Finland
- [] France
- [] Germany
- [] Greece
- [] Hungary
- [] Ireland
- [] Italy
- [] Latvia
- [] Lithuania
- []Luxembourg
- [] Malta
- [] Netherlands
- [] Poland
- [] Portugal
- [] Romania
- [] Slovakia
- [] Slovenia
- [] Spain
- [] Sweden
- [] United Kingdom

29) Which categories of businesses are most likely to be affected by:

An EU legal limit on iTFA content in food?

- () SMEs (under 250 employees)
- () Large (over 250 employees)

An EU ban on PHOs?

- () SMEs (under 250 employees)
- () Large (over 250 employees)

30) To what extent do you agree with the following statements regarding the reformulation of food products to reduce iTEAs in response to legislation to limit iTEA content to 2% of fat or to remove PHOS:

2% of fat of to femove rings,								
	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know		
Most food manufacturing businesses will face significant challenges in reformulating products that contain iTEAs	0	0	0	0	0	()		
Most food manufacturing businesses will not need to reformulate products but will rely on alternative ingredients from their suppliers	()	()	()	()	()	()		
Most food service businesses will face significant challenges in reformulating products that	0	()	()	()	()	()		
contain iTEAs								
---	----	----	----	----	----	----		
Most food service businesses will not need to reformulate products but will rely on alternative ingredients from their suppliers	()	()	()	()	()	()		
The effort required to reformulate products to reduce ITEAs will amount to a few hours for most food manufacturing businesses, but a minority will need to invest weeks or months of time in product redevelopment	()	()	()	()	()	()		
The effort required to reformulate products to reduce ITFAs will amount to a few hours for most food service businesses, but a minority will need to invest weeks or months of time in product redevelopment	()	()	()	0	()	()		
Most of the costs of product reformulation will be incurred	()	0	()	()	()	()		

31) ICF has assumed that fats and oils used in reformulated products are, on average, 25% more expensive than the ingredients they replace. Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

32) A previous Commission studyestimated that EU food product labelling requirements apply to around 27 million different Stock Keeping Units (SKUs). Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

33) A previous Commission study has estimated that over a three year period the labels of 82% of the food products on the EU market are updated. Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

34) ICF has estimated that an adjustment to a food product label costs, on average, EUR 1,500. Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

35) ICF has assumed that each Member State would invest 12 person-months of staff time to establish and promote legislation that regulated iTEA content of food products or to label TFA content (assuming EU law did not require secondary legislation at Member State level). Is this estimate:

() Too low (please provide your estimate and its source):

() Too high (please provide your estimate and its source):

() A reasonable estimate

() Don't know

36) New legislation would require that Member State authorities in each Member State monitor compliance and enforce violations. What do you think is most likely to happen?

() Public authorities will reallocate existing resources to monitoring and enforcement of the new rules;

() Public authorities will spend additional resources to monitoring and enforcement of the new rules;

() Don't know

Consumer impacts

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

37) To what extent do you agree or disagree with each of the following statements?

	Strongl y disagre e	Disagre e	Neutra I	Agre e	Strongl y Agree	Don' t kno w
Previous steps taken	0	0	()	()	0	()

to reduce the iTEA content of food have not led to an increase in consumer food prices.						
EU legislation to limit the iTEA content of food will not lead to an increase in consumer food prices.	()	()	()	()	()	()
EU legislation to limit the iTFA content of food will result in a small (<1%) increase in the price of those products that currently contain iTFAS	()	()	()	0	()	()
EU legislation to require the nutrient label to state products' TFA content will not lead to an increase in consumer food prices.	()	()	()	()	()	()

It is possible to reformulate products to reduce their ITEA content without affecting the attributes that matter to consumers.	()	()	()	()	()	()
There will be major challenges in reformulatin g some products to ensure that the attributes that matter to consumers are not affected.	()	()	0	()	()	()

Internal market and trade impacts

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

38) The differences in the level and type of action taken across the EU to reduce iTFA intake has the potential to affect the integrity of the EU's Internal Market. Please indicate the extent to which you agree or disagree with each of the following statements:

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
Current differences in rules governing ITFA presence in food create	0	()	0	0	0	()

difficulties for producers who wish to supply different EU markets.						
Current differences in rules governing iTEA presence in food affect competition and trade within the EU market.	0	()	0	0	0	0
In the absence of EU action on UEAs, more Member States will take action, so differences in rules will increase.	0	()	()	0	0	0
EU legislation to limit iTEAs in food will help to promote competition and trade within the EU Internal Market.	()	()	()	0	0	0
Mandatory product labelling on TFAs in food will help to promote competition and trade within the EU Internal Market.	()	()	()	()	0	()
EU legislation to ban PHOs in food will help to promote competition and trade within the EU Internal Market.	()	()	()	()	()	()

A voluntary agreement to limit iTEAs or phase out PHOs will help to promote competition and trade within the EU Internal Market.	()	()	()	()	()	()
EU legislation to reduce iTEAs in food will help to promote trade in food products (including ingredients) within the EU by harmonising rules.	0	()	0	0	0	0
EU legislation to reduce iTEAs in food will reduce the competitiveness of EU food products in comparison with foods imported from outside the EU.	()	()	()	()	()	()
EU legislation to reduce iTFAs in food will reduce the competitiveness of exported EU food products in third country markets.	()	()	()	()	()	()

Impacts on SMEs

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITFA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Don't know
Most small and medium sized food businesses (SMEs) that sell products containing iTEAs will be able to comply with EU legislation on iTEAs (e.g. a 2% limit) without significant difficulty.	()	()	()	()	()	()
Most of the small and medium sized food businesses that sell products containing ITEAs will comply with EU legislation (e.g. a 2% limit) by purchasing alternative ingredients (e.g. fats and oils) from their suppliers.	()	()	()	()	()	()
SMEs will be able to adopt solutions already developed by	()	()	0	()	()	()

39) To what extent do you agree with each of the following statements, regarding small and medium enterprises (SMEs);

larger firms.						
Overall, SMEs in the food manufacturing sector will face greater challenges and costs than SMEs in the food service sector.	()	()	()	()	()	0
Legislation to limit iTEAs will not impose significant reformulation costs on SMEs.	()	0	()	()	()	()

Environmental impacts

[Reminder] The policy options considered in ICF's study are: Option 1: a 2% limit on ITEA content; Option 2: a labelling obligation; Option 3: a prohibition of PHOs

	Strongl y disagre e	Disagre e	Neutra I	Agre e	Strongl y agree	Don' t kno w
Palm oil is the most attractive substitute for PHOs, so any action to limit iTFAs/ PHOs will increase	()	()	()	()	()	0

40) To what extent do you agree with each of the following statements?

demand for palm oil.						
The net environmenta l impacts of each of options for EU action to reduce iTEAs are difficult to predict, because PHOs, palm oil and other alternatives all have impacts on the environment.	()	()	()	0	()	()
Any increase in palm oil use resulting from EU action to reduce ITEA intake could be met from certified sustainable sources.	()	()	()	0	()	()