HaDEA - Study supporting the impact assessment on the revision of EU legislation on food contact materials

European

Validation workshop

15 March, 2024

The better the question. The better the answer. The better the world works.



Workshop agenda



The Study Team



Christina CASTELLA Partner – EY France Christina.castella@fr.ey.com



Arthur AMZALLAG Senior Manager – EY France Arthur.amzallag@fr.ey.com



Marco LAORETI Senior Consultant – EY France Marco.laoreti@fr.ey.com



Manal DJEBBOUR Senior Consultant – EY France Manal.djebbour@fr.ey.com

Objectives and functioning of the workshop

Objective



This validation workshop aims to present the results of the study, discuss and validate the findings and obtain insights from stakeholders to complete the final report.

Functioning



Presentation sessions

Don't hesitate to write down questions in the chat. We will do our best to address them later in the workshop.



Times for discussion

We expect active participation during discussion sessions. We will propose questions to guide the discussion.

Your contact for technical support

If you need technical support, you can contact Marco Laoreti Email: marco.laoreti@fr.ey.com

Workshop agenda

			March 15 th , 2024 Study supporting the IA on the revision of the FCM legislation	
Morning	Session 1 – Presentation of the study and the policy options			
	9:30 - 10:10 10:10 - 10:30 10:30 - 11:00		Introduction by the European Commission DG SANTE Q&A on Commission presentation Presentation on the context, objectives and methodology of the study	
	11:00 - 11:15		Coffee break	
	11:15 – 11:30 11:30 – 12:30		Presentation of the policy options to support the establishment of IT systems Discussion and feedbacks from the participants	
Afternoon	Session 2 – Impacts of policy options and their implementation		Session 2 – Impacts of policy options and their implementation	
	14:15 - 14:45 14:45 - 15:15		Presentation of the results of the assessment of impacts Discussion and feedbacks from the participants	
	15:15 – 15:30		Coffee break	
	15:30 – 15:45 15:45 – 16:00 16:00 – 16:30		Presentation of implementation pathways and preliminary conclusions of the study Discussion and feedbacks from the participants Conclusions by the European Commission DG SANTE	



Presentation of the context of the study and the objectives



Ensuring food safety through the FCM legislation

Food Contact Materials (FCM) refers to any material that comes in direct contact with food

- This includes packaging, utensils, storage containers, and machinery.
- FCMs can influence the safety of the food, due to transfer of their constituents which may impact human health.
- Ensuring the safety of these materials is crucial, especially since they are involved in all stages of food production, from processing to final consumption.

The European Union first started regulations on FCMs in 1976 to secure high level of human health protection and functioning of the internal market

- Council Directive 76/893/EEC, later revised into Regulation (EC) No 1935/2004, forms the main FCM legislation and regulates the production and supply of FCMs.
- The regulation mandates that these materials should not transfer their constituents to food in amounts that could pose a risk to human health, alter food composition, or cause deterioration in the food's organoleptic properties.

First formal evaluation of EU FCM legislation was completed in 2022

- Challenges identified include limited availability of DoCs, difficulties tracing FCMs from raw materials to finished products, and limited information on Good Manufacturing Practices (GMP).
- Inconsistencies and gaps in the declarations of compliance were identified. These can lead to lapses in information transmission and potential non-compliance.
- The Evaluation concluded a need for modernizing and digitizing FCM systems for improved accountability, transparency, and ease of compliance.

In light of the evaluation and as part of the Farm to Fork Strategy, the Commission has planned to revise EU FCM rules

- The ultimate aim is to establish a robust regulatory system for FCMs that fosters food safety, public health protection, market effectiveness, and sustainability.
- Pillars D and E of the revision focus primarily on information exchange, compliance, and enforcement in the FCM supply chain.



The scope of the study is related to Pillars D and E of the revision of the FCM legislation

	Safety and sustainability of FCM						
sion	Pillar A Redress focus onto final material	Pillar B Prioritisation of substances	Pillar C Supporting more sustainable alternatives				
Main pillars of the revi	 Better define the level of safety required, addressing the full characteristics of all final FCM articles and migrating substances, including NIAS Cluster into broader material types (synthetic, natural, inorganic, recycled, composite, active) 	 Define rules for the risk assessment of all substances that migrate from FCMs Tiered approach: Tier 1: generic risk based Tier 2: risk assessment by public authorities Tier 3: Self-assessment by business operators of more benign substances 	 Ensure fewer hazardous chemicals Prioritise more sustainable use of FCMs Coherence and support to other EU rules on sustainability, including packaging and food 				
	Information exchange, compliance and enforcement of FCMs						
S	Pillar D Improving quality and accessibility of supply chain information	Pillar E System for verifying compliance and undertaking of official controls	Pillar F Analytical methods				
Support pillar	 Clear and consistent rules on data requirements and information transfer throughout the supply chain, including a DoC for all FCMs Digitilisation to help businesses, including SMEs to ensure compliance and for MS to enforce 	 Delegated bodies under Official Control Regulation 2017/625 Notified Bodies tasked with conformity assessment 	 Migration testing rules Analytical methods Further development of test methods and technical standards as required 				

The study team was tasked with tackling the difficulties in the transfer of information along the FCM production chain, resulting in difficulties for industry to ensure and demonstrate compliance and for **Member States to** undertake controls, through the development of an IT system.



The Study supports an IT infrastructure for information exchange and verification of compliance





Session 1

Presentation of the methodology



The approach to the study



11

Data collection

Desk research

- · Legislative texts
- Evaluation of the FCM legislation
- Audit reports
- Research articles
- Industry reports
- Industry guidelines

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- Surveys
- 21 National Competent Authorities and 6 National Reference Laboratories answered the written questionnaires
- 355 industry representatives answered the online questionnaire (of which 170 were retained – 10% response threshold)

EC Consultations

- Analysis of 302 feedbacks to Inception Impact Assessment (IIA)
- Analysis of 609 responses to the Public Consultation (PC)

EY Knowledge Management

Interviews

- 25 interviews with EU industry associations
- 14 interviews with EU MS and Norway
- 9 interviews with EC, agencies and IT systems
- 3 interviews with similar IT systems (IMDS, Digital Product Passport, EMVO)

Case studies

03

- 3 industry case studies (metal packaging, plastics and wooden FCMs) with use case scenarios
- 5 case studies on IT infrastructures for information exchange





EY

Session 1

Presentation of the three policy options



Addressing insufficient information exchange in the supply chain through an IT system

The problem

Inability of supply chain actors and competent authorities in Member States to <u>ascertain</u> compliance and ensure safety in Food Contact Materials (FCMs) due to a <u>lack of sufficient</u> information relating to the safety of FCMs <u>throughout the production chain</u>.

Actors participating in a certain FCM's production chain who introduce a tier 3 substance do not adequately assess the safety of that substance or provide necessary information about its safe use and presence. This is due to <u>limited access to pre-existing information</u> on that substance, and the information they generate is not easily accessible to other relevant parties

producers FCM lack complete information on the identity and amount of all substances present in their products, and the quantities they can present and migrate which restricts their ability to exclude possible presence of tier 1 substances below a predetermined limit. Their knowledge gaps are not being sufficiently filled by information from earlier stages of the FCM production chain, hence increasing the risk

Official control bodies and enforcement authorities cannot quickly identify and understand the safety of final FCM articles due to <u>a lack of access to</u> <u>information generated/missing</u> <u>information</u>



Addressing insufficient information exchange in the supply chain through an IT system

In this context, the European Commission proposed creating <u>an IT system to support the exchange of</u> <u>information and verification of compliance in the FCM supply chain</u>. The system aims to solve these problems by <u>increasing transparency and facilitating more effective regulation and oversight</u>

Three types of IT systems were proposed:

- Centralized IT system with an EU body responsible for management and decision making
- Decentralized IT systems with Member States responsible for management and decision making
- Decentralized IT systems with businesses responsible for management and decision making

Specific Objective 1: Allow for easy access to information on the composition and safety of FCMs

Specific Objective 2: Allow for easy verification of compliance information and enforcement



Overview of an example of the functioning of the IT system



Overview of an example of the functioning of the IT system



Overview of an example of the functioning of the IT system

Browse	Material Card (name of material)				
Food contact material	Business information				
Component 1 Component 11	Name of company, Identification number, Address, Country, Contact				
Raw material 1	Material information				
• Raw	Material name & description				
material 2	- Type of component				
Component 12 Component 2	- Name of component				
Component 3	- Description				
•	- Identification number				
	Risk assessment information				
	Certifications				
	lest results Migration information				
	Compliance information				
	NCA conducting the verification of compliance				
	Results and comments on verification of compliance				
	Other				
	Supporting information and documents				
	Other comments				

Main elements for the FCM system for information exchange and assessment





Business Architecture - examples



Technology Architecture - examples



Application Architecture

Notification system:

 Notifications would be triggered by the input of new data, its modification, its updates, its compliance verification, etc.

UX/UI:

The platform would need to be user friendly. This includes the authentication portal, navigation, menus, buttons, etc.



Architecture

Access to the system:

> Private and profile-based access

Data input:

- The data input in the system can come from different sources:
 - Manual input of data
 - Data retrieval from interconnected company platforms
 - → Data retrieval from interconnected IT system (for chemicals for example)
 - Initial data uploaded within the system (from already existing data bases of substances and materials)



Infrastructure Architecture

Hardware:

- → Servers must be located within the EU.
- → Depending on the body responsible for decision making (policy option), the servers would be located either within the country responsible for the system, the location chosen by the industry or the location chosen by the EU-body.

Security:

- Back-up and recovery
- Firewalls
- Encryption



Introducing the policy options

The study team was tasked with developing three policy options to support an IT infrastructure for information exchange and verification of compliance

		Governance			
		Centralized	Decentralized		
	Centralized	Policy Option 1 A unique EU-level database used by all stakeholders in the FCM supply chain, and managed by an EU entity.	Policy Option 2A Decision-making is shared between Member State each of them manages their own database, which are connected to central database at the EU level.		
ІТ	Decentralized		Policy Option 2B Decision-making is shared between Member State each of them manages their own database for the country / FCM activity they oversee, with interoperability between systems. <u>Policy Option 3</u> Decision-making is shared between Industries each of them manages their own database.		



Distinguishing features of policy options

Common principles

- European Commission sets the guidelines for all IT systems
- The actor who exercises the governance of the system, not only sets up the system but is also the administrator of the same. It is in charge of the daily management of the system (e.g., providing access, application of guidelines, alerts etc.).
- Manufacturers, raw material and intermediate suppliers, non-EU suppliers (through importers or local subsidiaries), food business operators have access to the system and are able to input data about their substances or products as well as to consult data to carry out their compliance work. These actors can request additional or missing information to upstream or downstream actors.
- National Competent Authorities (NCAs) have access to data on FCMs and substances immediately and at every step of the way (including supporting documentation) in each system. They are also able to request additional information previous/during/after inspections.

Main differences

- The governance of each system differs. In Policy Option 1, an EU body exercises the governance of the system, whereas in Policy Option
 2 and 3 it is Member States and industries (industry association or clusters of industries) respectively.
- In Policy Option 2A and B, a body needs to be identified to manage the EU-level data hub or the interoperability between national systems.
- The location of databases differs from one option to another. In Policy Option 1, there is only one central database that is linked to an application which is used by all actors in the supply chain; in Policy Option 2, there is one database for each Member State which are used by national actors of the supply chain and interconnected to other national databases either through an EU-data hub or are made interoperable; in Policy Option 3 the databases are as many as the number of industry associations or clusters of industries that set them up and are used by actors doing business within a specific industry across Member States

Policy option 1: Centralized EU IT system





Used by all stakeholders in the FCM supply chain



Use case application of policy option 1 to the metal packaging industry



Policy option 2: Decentralized MS-level IT systems





Use case application of policy option 2A to the metal packaging industry





Use case application of policy option 2B to the metal packaging industry



Policy option 3: Decentralized industry-level systems





Use case application of policy option 3 to the metal packaging industry





Recap on policy options

Policy Option 1: Centralized EU-level IT system

- Single database at the EU level which is used by all actors of the supply chain and NCAs.
- An EU-body sets up the system and manages it within the guidelines of the EU Commission.
- Actors within the EU interact with the EU-level database, including NCAs

Policy Option 2: Decentralized MS-level IT systems

- Multiple national databases
- Communication among databases is ensured by an EU data hub or by interoperability between databases
- Each MS has to bear responsibility for setting up their own database and manage it according to EC's guidelines
- Actors within each MS interact with their national database, including NCAs who have access to information across MS

Policy Option 3: Decentralized industry-level IT systems

- Multiple industry-specific databases
- Industry associations or consortia of industries set up their own database which does not communicate with other industry-led databases
- Actors doing business with specific industries interact with the relative industry-level databases
- NCAs access all single industry-led databases



Session 2

Presentation of the assessment of impacts



Assessment of the most significant impacts of policy options

Approach

- (i) Qualitative analysis of the options and their impacts based on the data collection and EY experts' analysis;
- (ii) The first assessment criteria considered is effectiveness of the policy options to achieve the specific objectives;

(iii)Other assessment criteria concerned "technical" impacts specific to IT systems associated with the options.



Assessment of effectiveness of policy options to the objectives of the revision

General objectives

- Ensure food safety and public health
- Guarantee the effective functioning of the internal market
- Promote sustainability

Specific objectives

- SO1: Allow for easy access to information on the composition and safety of FCMs
- SO2: Allow for easy verification of compliance information and enforcement

Results of the assessment of effectiveness

- (i) All policy options are in principle effective to address the aforementioned specific objectives;
- (ii) Policy Option 1 results as the most effective in achieving both specific objectives as it provides the most streamlined and centralised approach offering a clear path for improved access to information and compliance verification;
- (iii) Policy Option 2 results as less effective than PO1 because it introduces potential interoperability issues, increased costs for MS and the likelihood of disparities in funding and IT system development possibly hindering easy and harmonised access and verification of information across the EU;
- (iv) Policy Option 3 results as the least effective as it relies heavily on industry collaboration which may not ensure comprehensive compliance data and could pose challenges in ensuring complete and accurate information



Assessment of technical impacts of policy options

Several criteria have been considered and assessed qualitatively to identify technical impacts related to the implementation and the run of each IT system, including the following:



The next slide presents an overview of the assessment for 3 criteria each for the implementation and the run of the IT systems.



Assessment of technical impacts of policy options

IMPLEMENTATION	Policy Option 1	Policy Option 2A	Policy Option 2B	Policy Option 3
	+++	++	+	+
Coordination effort	(low coordination efforts)	(moderate coordination efforts)	(high coordination efforts)	(high coordination efforts)
	+++	+	++	++
Cost efficiency	(highly cost efficient)	(not cost-efficient)	(moderately cost efficient)	(moderately cost-efficient)
	+++	++	+	+
Consolidation	(highly efficient data	(moderately efficient data	(least efficient data	(least efficient data
	consolidation)	consolidation)	consolidation)	consolidation)

RUN	Policy Option 1	Policy Option 2A	Policy Option 2B	Policy Option 3
Scalability	+++	++	++	++
Scalability	(highly scalable)	(moderately scalable)	(moderately scalable)	(moderately scalable)
Data Management	+++ (simple data management)	+ (complex data management)	+ (complex data management)	+ (complex data management)
Service delivery	++ (uniform but limited service delivery)	++ (specific but unequal service delivery)	++ (specific but unequal service delivery)	++ (specific but unequal service delivery)

Assessment of technical impacts of policy options

From a technical point of view, the PO1 is the more efficient solution in terms of simplicity and optimization of efforts. However, three main analysis dimensions must be considered:

Implementation

PO1 will require an **important effort** and traction to initiate and define the system and a **very high front value to engage the investment**.

On the opposite, the first implementation steps of the other POs will require **setting up smaller systems** (at country level or industry level). The first **investments** will appear to be **significantly lower** and each instance will be able to **start at their own rhythm**.

The counterpart will be that it will be **more difficult to project a deadline** at which the system would be fully operational.

Customization

PO1 will be halfway between the need for the system to have as many functionalities to **satisfy every country and industry**, but also for them to **fit in a single model**.

The systems under PO2 and PO3 would have **customized services**, fitting to local processes and specificities. It could create a **better acceptance of the system** and more personalized services.

However, it would make **data reconciliation more complex** and make it **harder to ensure the full vision on the data collection** throughout the systems, especially for NCAs.

Cost efficiency

The PO1 will require a **bigger initial** investment.

However, the other POs will lose the initial advantage because of the **potential redundancy of work on the different systems** and the **effort for reconciliation**.

PO2A would **combine both disadvantages** with the cost of building a central system and the cost for reconciliation.

However, it would be the **best compromise** between the quality of service and the capacity of reconciliation.



Qualitative estimation of the cost burden of each policy option

FCM IT System costs will vary according to data volumes

- (i) For Policy Option 1, all FCM data is stored in a single data platform, processing significant volume of data, with no duplication;
- (ii) For Policy Option 2A, FCM data is stored in Member State-specific platforms, reducing individual data volumes but duplicated in a central data-hub;
- (iii) For Policy Option 2B, FCM data is stored in Member State-specific platforms, reducing individual data volumes, with no duplication;
- (iv) For Policy Option 3, FCM data is stored in Industry-specific platforms. Duplication occurs across industries that share suppliers, increasing data volumes

	Policy Option 1	Policy Option 2A	Policy Option 2B	Policy Option 3
Global costs	+++	+	+	+
Local costs	+	++	+++	+++
	Per MS/Industry	Per Member State	Per Member State	Per Industry
Coordination costs	+	+++	++	++



Results of assessment of impacts

Policy Option 1: Centralized EU-level IT system

- Implementation: Involves relatively low coordination efforts, making it cost-efficient and straightforward to manage. It ensures highly efficient data consolidation, simple data management, but is marked by complex governance due to diverse stakeholder needs, low global adaptability and potential inequalities.
- Run: High consolidation efficiency, scalability, simple data management, high control over data protection, simple governance, cost efficiency, limited room for innovation and high global adaptability, but low local adaptability.

Policy Option 2B: Decentralized MS-level IT systems with interoperability

- Implementation: Similar to PO2a but with coordination efforts likely to rise due to the need to ensure interoperability. It's additionally perceived as less cost-efficient, equal in terms of data management, but less adaptable globally.
- Run: Slightly less efficient in consolidation than PO2a, moderately scalable, complex data management, variable service delivery, high resilience, moderate control over data protection and governance complexity, less cost efficient, greater prospects for innovation, but less global and high local adaptability.

Policy Option 2A: Decentralized MS-level IT systems with EU-data hub

- Implementation: Moderate coordination efforts and costefficiency, slightly complex data consolidation and management, complex governance due to sharing decisionmaking among member states, potential for moderate inequalities, and moderate global and local adaptability.
- Run: Moderately efficient at data consolidation, moderately scalable, complex data management, variable service delivery, high resilience, moderate control over data protection, complex governance, moderate cost efficiency, moderate innovation potential, and moderate global and high local adaptability.

Policy Option 3: Decentralised industry-level IT systems

- Implementation: High coordination efforts, moderate costefficiency, inefficient data consolidation, complex data management, highly complex governance, potential for high inequalities, and low global adaptability but high local adaptability.
- Run: Inefficient data consolidation, variable scalability, complex data management and governance, low cost efficiency, potential for unequal innovation, and low global adaptability but high local adaptability.



Session 2

Discussion on assessment of impacts



Discussion on policy options

Which policy option would you support?



For those online: please participate to the poll in the the Teams chat



Discussion on policy options

Can you mention any other impacts that weren't yet identified ?



For those online: please participate to the poll in the the Teams chat



Session 2

Presentation of implementation pathways













Ensuring the availability of qualified resources.



Implementation phases of the FCM IT system

for such step.

regarding the IT system.

Develop

Develop and test the system

The architecture of the system would be defined following the chosen policy option. The project can be set up following an Agile framework in order to proceed with iterations and test as you go. A pre-production environment is crucial

Outcomes

Responsibility assignment matrix (RACI) can be created to specific assign roles to each actor.

Depending on the chosen project framework, the deliverables can be different. For such project, the Scrum Agile framework would be the most suitable.

Challenges

Ensuring strict security measures.

Ensuring coordination between the different systems and coordination in case of decentralized policy options.

The system should be, as soon as the security requirement are sufficiently met, fed with available data on substances, collected before implementation.

A training plan must be defined to support the

implementation and avoid resistance to change

A training plan to train users on how to enroll in and use the system, to have a better understanding of the solution.





Authorities



Project team



Dev' team



Implementation phases of the FCM IT system

Deploy

Implement the system

Gradual implementation should be considered for such disruptive system. If PO1 is chosen, a planning must be defined, in which the scope of implementation will expand gradually, either depending on countries or industries.

Outcomes

A pilot program can be rolled out to a limited number of end-users, that would identify and report issues to be fixed before official deployment.

Gradual deployment can take place depending on the policy option.

Challenges

Ensuring a good allocation of budget and resources, without underestimation.

For PO2, ensuring coordination between deployment of the system, since there is an interdependence.

For decentralized policy options, this will not be a significant issue. Change management must be taken into account all throughout. Providing training for future users must also be ensured for a smoother transition.

The project team would have to create and look over a help desk and IT support, to receive user feedbacks and take the appropriate actions.

Training sessions can also be organized.



Project team



Dev' team





Admin





Challenges

Ensure access to training for all users.

Value feedback of users and take is into account for evolutions and maintenance.



Admin





Conclusion by DG SANTE



Your contacts:

Main project contact:

Christina CASTELLA:

christina.castella@fr.ey.com

EY France Tél. : +33 (0)1 46 93 63 59

