

STANDARDISATION OF MILK AND DAIRY PRODUCT ANALYSIS METHODS

Today, several standardisation processes exist for milk and dairy product analysis methods, with many links between them:

- International via ISO (Technical Committee 34 / Standing Committee 5) and IDF,
- European via the European Committee of Standardisation (CEN technical committee 302),
- French via AFNOR (V 04A commission) and the joint work group (IDF ALF / AFNOR V 08B) for microbiological methods.

Concerning horizontal microbiological analysis methods, widely used in the dairy industry, the international process is limited to the work of ISO (Technical Committee 34 / Standing Committee 9), the European process is that of the CEN TC 275, and the French process that of AFNOR V 08B commission.

The purpose of this text is to present individually the actual standardisation modes of the methods used for milk and dairy products and the functional links existing between the different standardisation organisations.

THE INTERNATIONAL LEVEL ISO/IDF

- Development of dairy product-specific normative documents:

Actually, there is a harmonised procedure for the development of joint ISO/IDF analytical standards, supervised by an ISO/IDF group: the MSSG (Method Standard Steering Group).

The cooperation agreement concerns the development and systematic revision of standards for analysis methods and sampling of milk and dairy products, with the aim of a joint publication.

Knowing that each organisation (ISO and IDF) preserves its own procedures, the development of an international normative document is based on the following general principle:

- The proposition of a new study (NWI: New Work Item) by a member committee (ISO) or a national committee (IDF) constitutes the first stage of the development. This new study is submitted to a vote by all the member committees (ISO) and all the national committees (IDF).

When the draft is approved, the project is followed by a joint ISO/IDF work group (JAT: Joint Action Team).

- The draft then undergoes 4 development stages (NWIP – CD – DIS and FDIS) with intermediary votes (according to IDF or ISO) in the form of questionnaires sent to member countries (ISO) and national committees (IDF). The minimal percentages of approval have been fixed as: at least 75% of the voting member committees for ISO and 50% of the IDF members (with minimum 50% of voting members).

Procedures specific to each IDF or ISO process are described in detail in table 1, and the elaboration of an ISO standard is presented in figure 1.

From a practical point of view at the French level, the ISO and IDF questionnaires are retransmitted, respectively by AFNOR and IDF France / ALF, to experts of the national monitoring commissions (ISO and IDF).

On the basis of the experts' responses and comments, AFNOR V 04 A commission (milk and dairy product analysis methods) and IDF France / ALF jointly define a position and transmit it to ISO and/or IDF.

It is important to report the following precisions, concerning the progress of this procedure, to the experts and all the other actors of the branch, potential users of analysis methods:

- The questionnaire, at the inscription of the study to the work programme stage (called NWIP: New Work Item Project), deals mainly with the benefit of the standardisation of a such method for the dairy industry. It is sent with a first working document produced by the project leader (WD: Working Draft). If the vote is positive, the draft will be added to the work programme (IDF/ISO) and a standardised method on this subject will be published (with a technical principle corresponding to the initial demand).

- The questionnaires, from "Committee Draft (CD)" to "Draft International Standard (DIS)" stages, will permit technical and editorial comments on the analysis method proposed.

- For the ISO procedure, the questionnaire at the final stage before publication (FDIS: Final Draft International Standard), can only allow approval or disapproval of the text without technical comments (only rare editorial comments are accepted). In the case of disapproval, it must be argued.

Generally, the total period of an analytical standardisation draft is 36 months, but when joint ISO/IDF preliminary work is necessary, the duration is 48 months. Under certain conditions, this period

can be shortened to 24 months (case of the express route).

- Case of the development of normative documents in horizontal microbiology:

The development of these methods follows the ISO procedure described in figure 1 and the general principle described above.

In practical terms, the questionnaires are retransmitted by AFNOR to the ISO national monitoring commission experts. The AFNOR V 08B (microbiological methods) commission then defines its position, on the basis of the experts' responses and comments, and transmits it to ISO.

- Revision of normative documents:

The ISO/IDF and IDF standards are submitted to a joint five-yearly systematic review programme.

A questionnaire is sent to each ISO member committee and IDF national committee (in the case of a joint standard), who must pronounce on the confirmation, the review or the cancellation of the

normative document considered. A cancellation or review vote must be argued.

On the basis of the responses to the questionnaire ISO/IDF a decision is taken with a simple majority: at least 75% of the committee members voting for ISO and 50% of members for IDF (with 50% minimum of members having a vote).

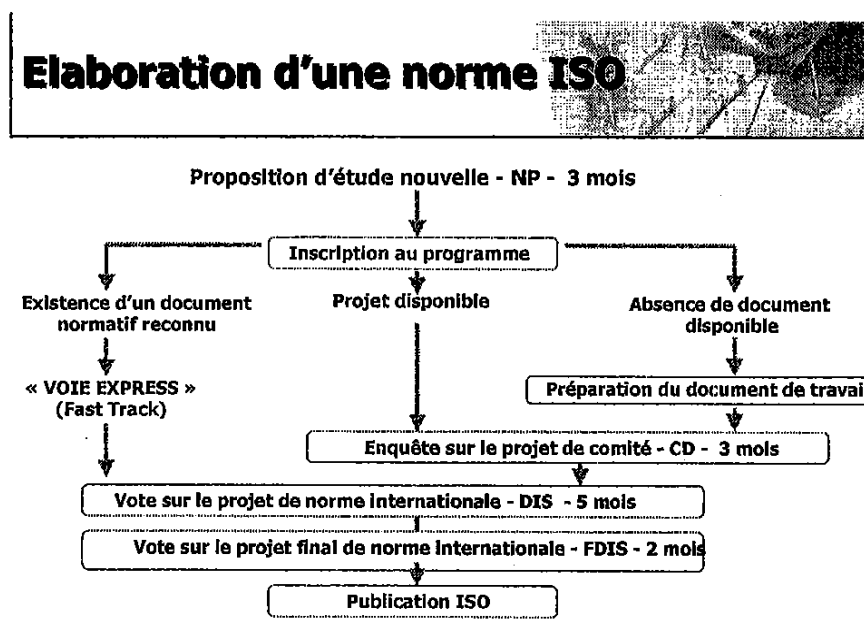
In practical terms at the French level, the ISO and IDF questionnaires are retransmitted, respectively by AFNOR and IDF France / ALF, to experts of the national monitoring commissions (ISO and IDF).

On the basis of the experts' responses and comments, AFNOR V 08B commission (food microbiology) and IDF France / ALF jointly define a position and transmit it to ISO and/or IDF.

A demand for review is treated as a new study (NWI), integrating the work programme at stage 1 and following the normal procedure for the development of a new document.

In practical terms, in the majority of cases these reviews follow the "express procedure" (with the approval of member countries, certain intermediary stages of the elaboration procedures are omitted). The elaboration time of standards is then reduced.

Figure 1



Source AFNOR

THE EUROPEAN LEVEL, THE EUROPEAN STANDARDISATION COMMITTEE (CEN):

- Development of normative documents:

Actually, the CEN committee, in charge of analysis methods for milk and dairy products, does not conceive analysis methods, as the other agro-alimentary technical committees do.

The TC 302 adopts, in the biggest majority of cases, ISO/IDF standards which follow the flow chart in figure 1 according to an Unique Acceptation of

Document (UAP) procedure with a weighted majority vote (all the member countries do not have the same weight). The standards then published will be identified as EN ISO.

NB: It is possible that as from the ISO/IDF project launch, CEN decides to adopt the same ISO/IDF standard for its programme. In this case, the ISO and CEN member countries will vote (each on its side) at the DIS (Draft International Standard) and FDIS (Final Draft of International Standard) stages.

If an analysis method is standardised by CEN, this method prevails over national regulations in this field.

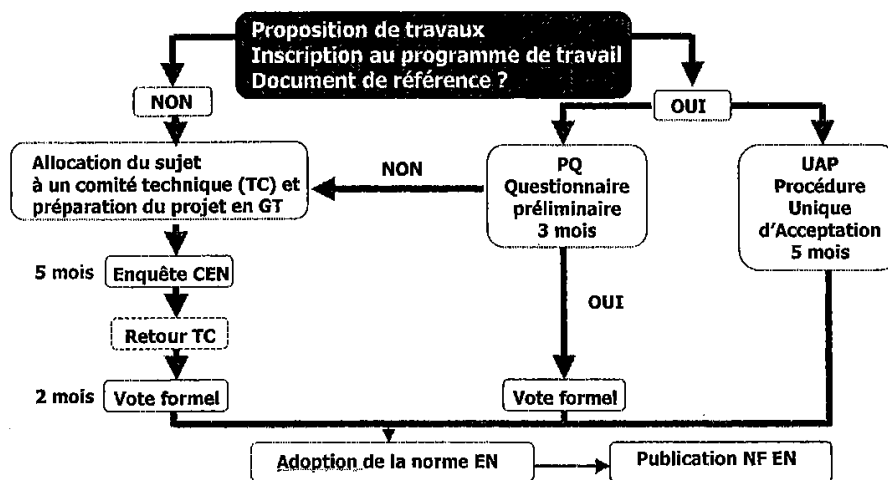
- Development of normative documents in horizontal microbiology:

Actually, the CEN technical committee 275 is in charge of the microbiological analysis methods. It can conceive an analysis method (according to the flow chart in figure 2) or adopt an ISO standard according to a Unique Acceptation Document (UAP) procedure, with a weighted majority vote. The standards published will be then identified EN or EN ISO.

As for the methods from TC 302, an analysis method standardised by CEN prevails over the national regulations in this field.

Figure 2

Elaboration d'une norme EN
Cas général



Source AFNOR

**THE NATIONAL LEVEL, AFNOR AND IDF
France / ALF:**

- Development of normative documents:

At the French level, the development is led by the AFNOR commission in charge of the considered theme (V 04A or V 08B).

The draft is added to the national commission's work programme after studying the opportunity of such standardisation via a questionnaire to AFNOR commission experts or interrogation of branch actors. The draft then follows the flow chart in figure 3, including the elaboration of a work document by the commission in charge of the file, a preliminary inquiry before the final draft and its submittal to a probative inquiry among French experts in the field, required for the standard approval process (publication). These documents thus published will be identified NF V 04 XXX (for the physico-

- Revision of normative documents:

The EN standard is submitted to a systematic five-yearly review programme.

Each European country receives a questionnaire, and must pronounce on the confirmation, review or cancellation of the normative document considered. The member committee transmits the form to experts of its national monitoring commission (V 04A or V 08B). The response is based on the national monitoring commission's decision. The cancellation or review vote must be accompanied by arguments. The CEN's decision is then taken on the basis of the questionnaire responses with a weighted majority.

chemical field of milk and dairy products) or NF V 08 XXX (for the food microbiology field).

If necessary, these documents will be proposed to the international standardisation organisms (ISO or ISO/IDF) as a new study proposition (NWI).

- Adoption of an international and/or European standard:

- Within the context of the national standardisation activity, AFNOR may adopt an ISO or ISO/IDF standard as a French standard.

A questionnaire is therefore sent to experts in the field. They must pronounce on the adoption or not of this standard as a French standard.

On the basis of the responses, the V 04A or V 08B commissions define a position. It is important to note that the adoption of the standard must be total.

- The transposition of European standards into national standards is obligatory, because the EN standard in itself does not exist.

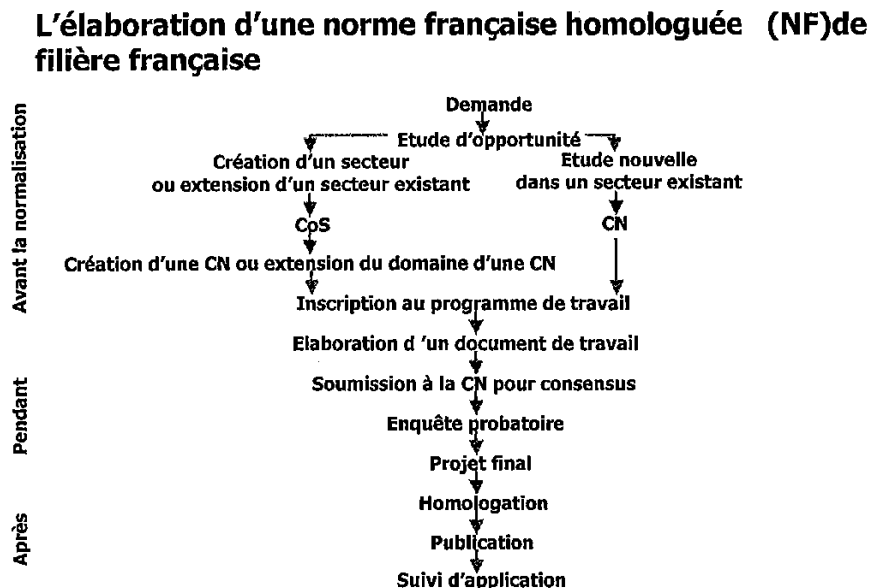
The documents integrated into the French collection will be identified as NF ISO or NF EN ISO followed by the ISO standard number. The usual identification of the French standard “NF V 04 XXX” or “NF V 08 XXX” then becomes an indication of classification only.

- Review of normative documents:

The NF standards are submitted to a systematic five-yearly review programme.

Each expert of the national monitoring commission receives a questionnaire (from the commission secretariat), through which it must pronounce on the confirmation, the review or the cancellation of the normative document considered. The commission then rules on the basis of the experts’ responses.

Figure 3



Source AFNOR

CONCLUSION

The standards elaborated at an international level are largely adopted by the CODEX authorities, and are therefore in the centre of commercial exchanges.

Moreover, with the current working principle the standards created at the international level are often adopted at the European level by CEN. And in this case, it is obligatory to adopt them as a French standard.

In view of these stakes, the following of European and international work on analysis methods, with the participation in work groups or commented answers to the questionnaires, become therefore strategic for the French dairy branch.

France could then assert its own positions at the international level, contributing to obtain normative documents corresponding to the expectations of all the branch actors.

Table 1. ISO-IDF Procedures for the Development of ISO-IDF Standards for Methods of Analysis and Sampling of Milk and Milk Products (February 2006)

Stage	Joint Work Procedure	IDF	ISO/TC 34/SC 5	Joint target date	Joint documentation
0	<u>Preliminary Work Item</u> Consideration WI by JAT	Approval JAT / SC and PCC (b-item)	Approval P-MBs	24 months after acceptance	Preliminary work or new work item proposal
1	<u>Proposal NWI</u> Approval NWI proposal. Allocation accepted WI to a project group / JAT and nomination of leader and experts	Approval PCC Ballot NCs (a-item) NCs approving + willing to participate and nominate experts (≥ 6 are required)	Ballot MBs (incl. CEN if CEN item) for approval and willingness to participate and nominate experts (≥ 5 are required) (20.00)	NWI approval registration: 3 months after circulation of proposal. (When approved: Fix target dates: Stage 1 = 0)	AWI included in work programme
	<u>Preparation of final WD</u> (by project group)	Convening of project group as a JAT or within a JAT. Appointment of project leader and experts by SC concerned with input and endorsement by ISO. Checking the proposed method. Pilot-study in laboratories, production of a final WD for approval by JAT.		WD: as attached to NWI proposal or ready in case of layout to that in 6 months after approval as AWI	Preparation of WD and completion as a draft for circulation
2	<u>Preparation and approval of CD</u> (in relation to first approval and comments, 3 months vote).	CD for SC and JAT approval and comments Compilation of comments by IDF	CD to MBs. Compilation of voting results and comments by ISO (30.00)	CD registration: 12 months after approval of project (Stage 1 + 12 months)	Preparation of draft (CD) used jointly for IDF SC/JAT comments & ISO voting. Compilation of voting results on CD and ISO + SC comment report .
	Preparation of next draft (final CD)	Circulation of voting results to PL, IDF SC and ISO MBs. Integration of comments in next draft by project leader/group. Organization of an interlaboratory study. Incorporation of figures in draft to become DIS.			
3	<u>Preparation and approval of DIS</u> (in relation to editing and translation and next approval and comments; 5 months vote).	Preparation of French version by AFNOR.	Draft (DIS) to MBs (if CEN item as prEN). Compilation of ISO-IDF voting results and comments report by ISO (40.00).	DIS registration: 24 months after approval of project (Stage 1 + 24 months)	Preparation of DIS used jointly for IDF questionnaire & ISO voting. Compilation of voting result and voting report with comments on DIS and questionnaire
	Preparation if draft to become FDIS.	Draft (DIS) + questionnaire to NCs. Preparation of summary of replies by IDF			
4	<u>Preparation and approval of FDIS</u> (in relation to text; 2 months vote)	As only editorial comments are accepted at this stage, there is no IDF action. Formal approval ISO/FDIS by MBs incl. CEN if CEN item.(50.00)		FDIS registration: 43 months after approval of project (Stage 1 +43 months)	Preparation of FDIS for ISO voting.
5	<u>Publication IS</u>	Joint ISO-IDF International Standard published by ISO (60.00)		IS : 48 months after approval of project (stage 1 + 48 months)	Published document

Abbreviations	Abbreviation	Abbreviation	Abbreviation
AWI	Accepted Work Item	MB	Member Body (of CEN or ISO)
CD	Committee Draft	MSSG	Methods Standards Steering Group (of IDF & ISO)
CS	Central Secretariat (of ISO)	NC	National Committee (of IDF)
CEN	European Committee for Standardization	NWI	New Work Item
DIS	Draft International Standard	PCC	Programme Coordination Committee (of IDF)
FDIS	Final Draft International Standard (in ISO)	SC	Standing Committee (of IDF)
JAT	Joint Action Team (of IDF and ISO)	SC 5	Subcommittee 5 (of ISO)
IDF	International Dairy Federation	TC 34	Technical Committee 34 (of ISO)
ISO	International Organization for Standardization	WD	Working Draft
IS	International Standard (of ISO & IDF)		