



# DOCAMEX : Capitalise on Know-How in Geographical Indications

Nadège Bel<sup>1\*</sup>, Cécile Charles<sup>2\*</sup>, Julien Couteaux<sup>3</sup>, Cédric Baudrit<sup>3</sup>, Patrice Buche<sup>4</sup>, Eric Notz<sup>5</sup>, Ronan Lasbleiz<sup>6</sup>.

E-mail: [n.bel@actalia.eu](mailto:n.bel@actalia.eu)

E-mail: [experimentation@enilv.fr](mailto:experimentation@enilv.fr)

E-mail: [contact@docamex.fr](mailto:contact@docamex.fr) ; [cedric.baudrit@u-bordeaux.fr](mailto:cedric.baudrit@u-bordeaux.fr)

E-mail: [patrice.buche@inrae.fr](mailto:patrice.buche@inrae.fr)

E-mail: [e-notz@ctfc.fr](mailto:e-notz@ctfc.fr)

E-mail: [rlasbleiz@cniel.com](mailto:rlasbleiz@cniel.com)

Name of the presenting author is underlined

<sup>1</sup> ACTALIA, Unité Produits Laitiers, Pôle technologie fromagère, 419 route des champs Laitiers, 74800 La Roche Sur Foron, France

<sup>2</sup> ENILV, Ecole Nationale de l'Industrie du Lait et des Viandes, 212 rue Anatole France, 74800 La Roche sur Foron, France

<sup>3</sup> INRAE, Université de Bordeaux-I2M, 33400 Talence, France

<sup>4</sup> INRAE, Université de Montpellier-IATE, 34060 Montpellier, France

<sup>5</sup> CTFC, Centre Technique des Fromages Comtois, 9 avenue Wladimir Gagneur, 39800 Poligny, France

<sup>6</sup> CNAOL, Conseil National des Appellations d'Origine Laitière, 42, rue de Châteaudun, 75314 Paris cedex 09, France

\*Authors contribute equally to this project

## 1. Context

- Cheese sectors with Geographical Indications (GI) have a long tradition of oral transmission and learning on the job of the knowledge and know-how that constitute them. Developments such as renewal of operators, mechanisation or even automation of processes, and lack of formalisation of practices, make preservation and transmission of this know-how very fragile.

► In this context, DOCAMEX project (Development of sOftware for the Capitalisation and Mobilisation of cheese-making know-how and Experience) has sought to find the best way to collect cheese-making knowledge and know-how and to structure it in such a way as to make it sustainable, evolving, transferable and accessible to current and future players in traditional cheese-making sectors.

## 2. Methods

► Development of a methodology for collecting cheese experiences :

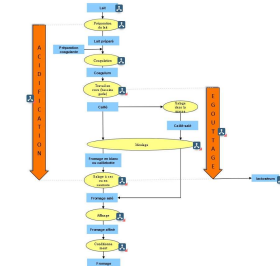
- Traditionnal way to collect experience were first used : bibliography study, individual or group interviews...
- The method of professional didactics was then explored to investigate in greater detail the meaning conveyed by professional gestures

► Structuring and validating the collected cheese experience in 2 ways :



### An electronic knowledge book

- Concept maps (C-map)
- Influence graphs
- Knowledge sheets



- wide variety of media (publications, technical studies, videos, sound recordings, ...)



### Reasoning trees

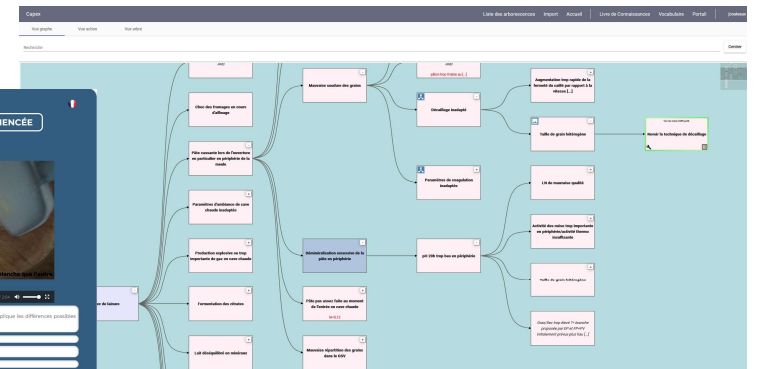
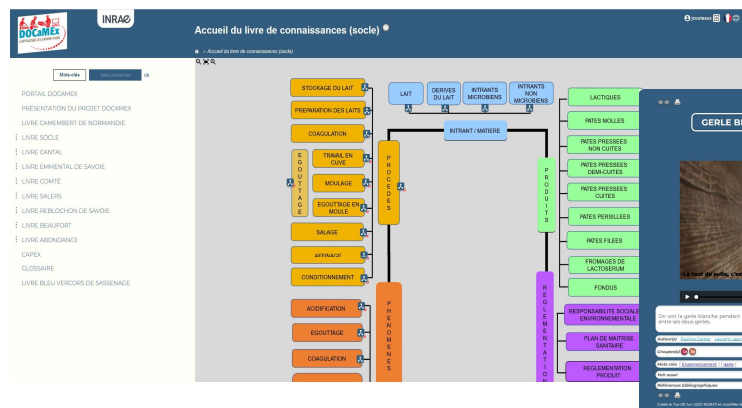
- Explanatory mechanisms
- Cause and effects relationships
- Levers for normal or corrective intervention



► Development of the operational software package + interconnection between them :



### Interconnections between tools



► Adaptation of tools to user needs and adding feedback :

- A study of the different ways in which the tool can be used was also carried out, to facilitate its deployment within the GI and school sectors, and subsequently with other dairy sectors and companies. The result is an ergonomic tool including technological multicriteria decision support that can be used on a PC or tablet.

► Creation of 2 levels of information : the core tool and the specific GI or company tool

- At each stage, the tool is **co-constructed** and **validated with professionals**.
- Each of these tools has a **version called "core tool"** which brings together generic knowledge of cheese processing (all sectors combined) and **"sector" versions** adapted for each sector under GI which include the specific knowledge of the sectors concerned. This section is only accessible to professionals in the specific sector concerned.
- The **data are secured** by access levels and rights adapted to each audience.

## 3. Results

► By 2023, 15 GI cheese chains, 6 cheese-making schools and 1 technical institute will be using the DOCAMEX tool. Users work together as a **network** which supports the **continuous improvement** of the tool.



► New users benefit from methodological tools designed to **facilitate the creation and integration of their content** into the DOCAMEX tool. Access to the "core tool" data, the methodological guides and the trained referees will enable any new sector wishing to create its own tool to construct its specific sector data quicker.

## 4. Perspectives

► Training modules using the DOCAMEX tool are currently being developed for use in **cheese-making schools** and continuing education courses.

► The DOCAMEX tool also enables in-house training for cheese factory operators, and helps teams to **improve their skills**.

► For the members of the consortium, the challenge is now to adapt and deploy this digital platform to as many cheese sectors and dairy industries as possible, and extend the approach upstream in the chain (milk production, breeding, ..) where these problems of capitalisation and transmission of knowledge and know-how are also significant.

For further information on the project : [www.docamex.fr](http://www.docamex.fr)