

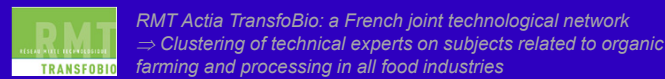


CONTEXT

According to the European regulation (EC No. 2018/848 and 889/2008), an organic processed food is mainly made from organic agricultural ingredients. The processing of organic food should be conducted with care, preferably through the use of biological, mechanical and physical methods.

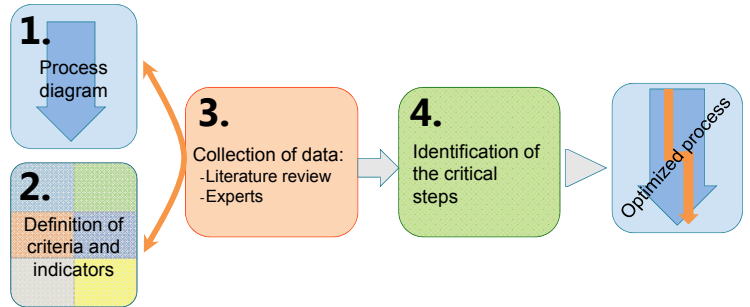
The regulation imposes thus few limits and allows numerous processing types. How to help processors to determine a process matching with organic principles, consumers' expectations, and economic considerations?

Aim: to provide tools to the processors of organic food, in order to help them to choose a process in accordance with the organic principles and with the consumers' expectations. In the framework of the RMT Actia TransfoBio, an assessment methodology was constructed and applied to organic bread.



METHODOLOGY

Assessment of the different steps of a food process on the 6 following aspects: nutritional, sensory, sanitary, environmental, social and economic aspects.



APPLICATION : ORGANIC BREAD

1. Process diagram of organic bread

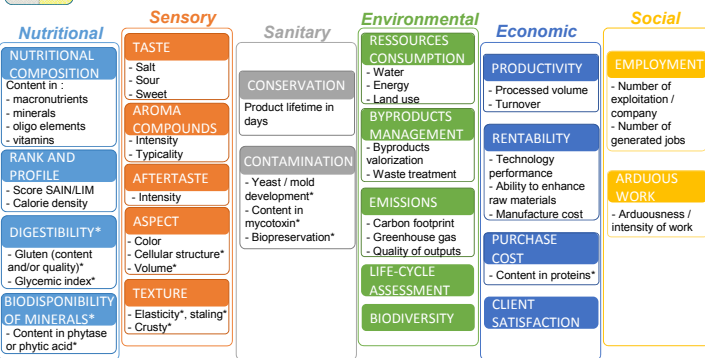
Established with the help of several experts

3 major steps were considered :

- Production of raw material
- 1st processing step (from grain to flour)
- 2nd processing step (from flour to bread)

For each step, every alternatives were examined.

2. Evaluated criteria and indicators on 6 studied aspects



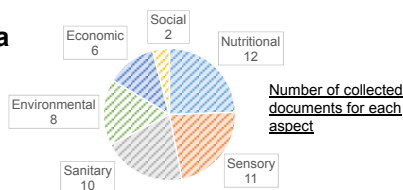
\*Specific criteria et indicators to the product, i.e. bread

Criteria (in capital letters): Variables by which something may be judged or described. Criteria decompose the studied aspect. They can be measured by indicators.

Indicators (in lowercase letters): Variables that can be measured, in order to evaluate the criteria.

3. Collection of data

46 scientific and technical documents were collected



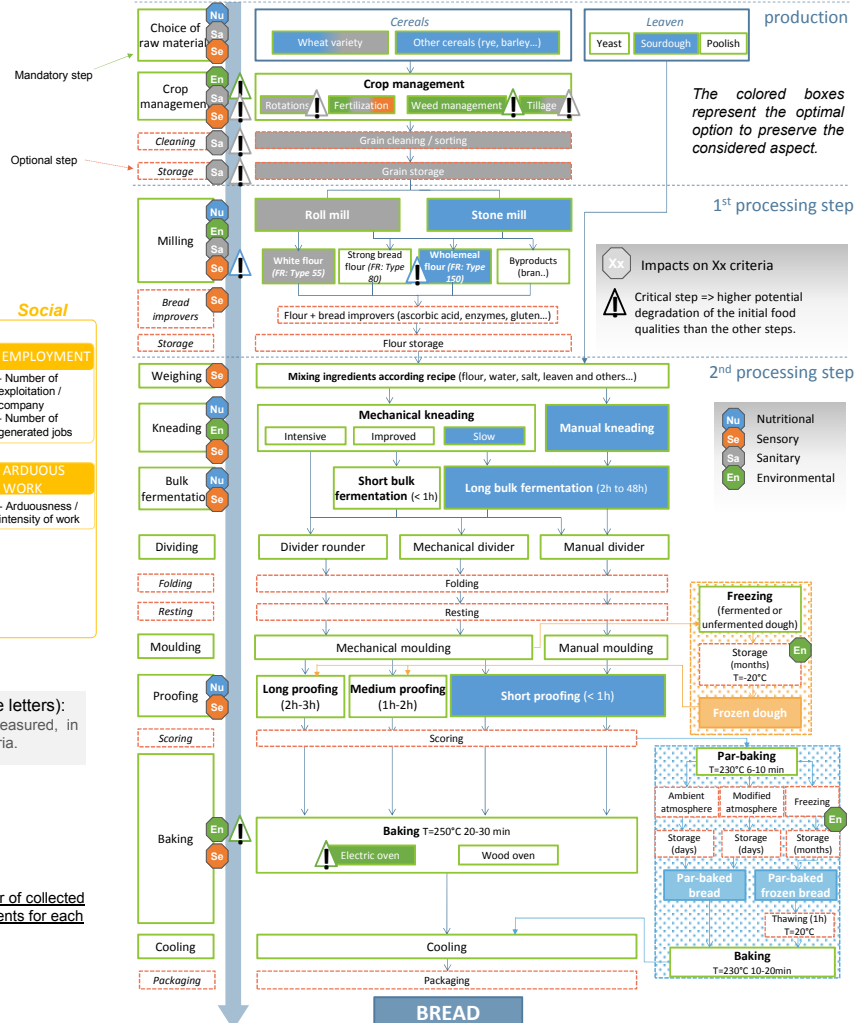
4. Identification of critical steps

Critical step : Step involving a higher potential degradation of the initial food qualities than the other steps.

- Nutritional aspect -> Milling
Sensory aspect -> No critical step
Sanitary aspect -> Crop management, cleaning and storage of grains
Environmental aspect -> Crop management and baking

Process assessment

for nutritional, sensory, sanitary and environmental aspects



CONCLUSION

The assessment methodology was successfully applied to the bread-making process for nutritional, sensory, sanitary and environmental aspects. More data is still needed to perform a socio-economic assessment.

The process assessment showed that some steps (as milling for example) can be source of conflict between two aspects. In these cases, the processor is free to prioritize the aspect of its choice.