

# Taking grain quality and bread-making potential into account when registering wheat varieties.

Overview of European protocols.  
(Results of 2023 survey)

Damien Eylenbosch

Korsor, Denmark, 15<sup>th</sup> May 2024  
EU-VCU Group

# Context

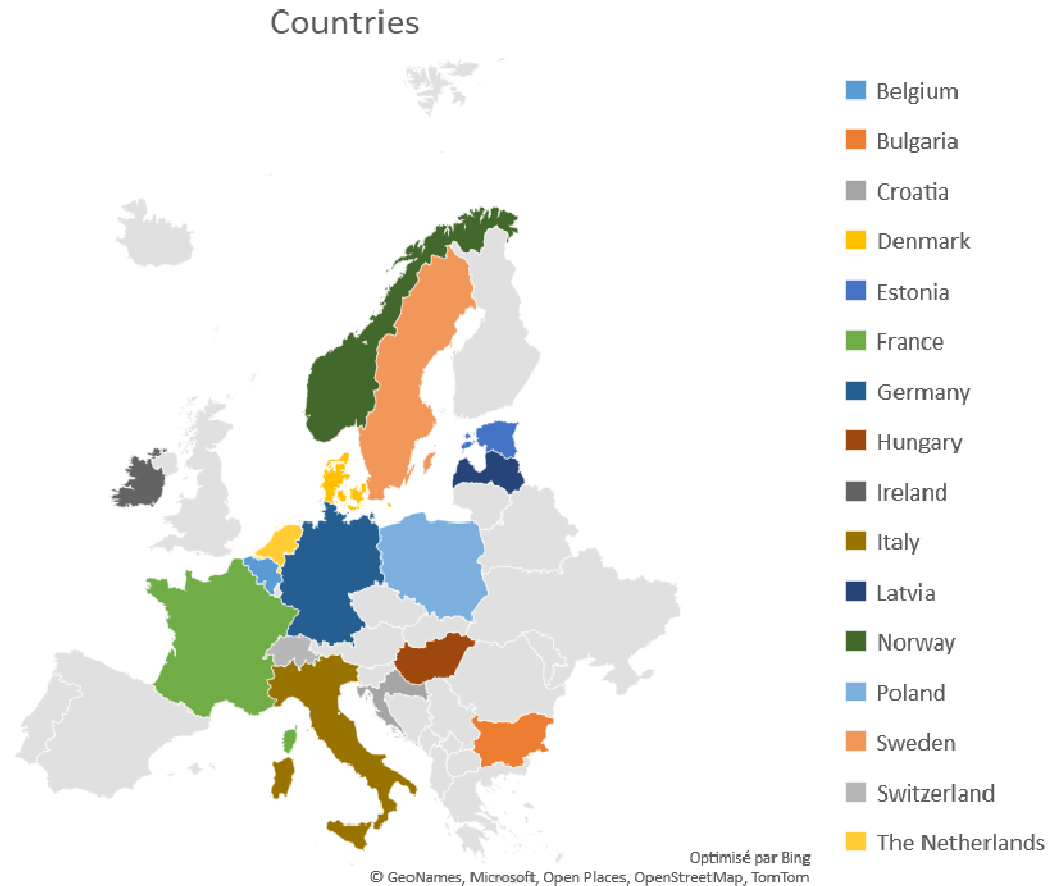
- 2023: Reflexion on the wheat belgian protocol to better take into account baking quality and organize VCU trials in organic conditions.
- Survey organized during last EU-VCU meeting in order to have an overview on how other countries work.

# Survey 2023

- In wheat VCU testing
  - Do you have forage and bakery classes?
    - How these classes are defined in the final weighting?
    - Does yield have the highest weight in the final note?
  - Do you have already specific organic VCU for wheat?

# Answers

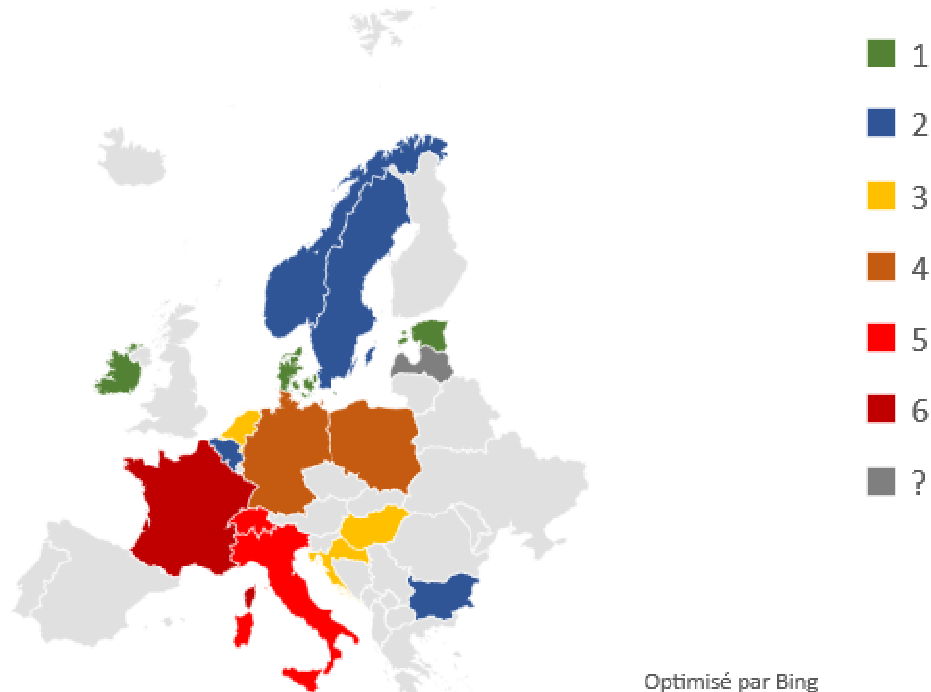
- 16 countries responded the survey



# Specific classes for forage and baking varieties?

- Most countries have several classes for winter wheat.
- The number of classes is between 1 (no classification) and 6.

Number of classes

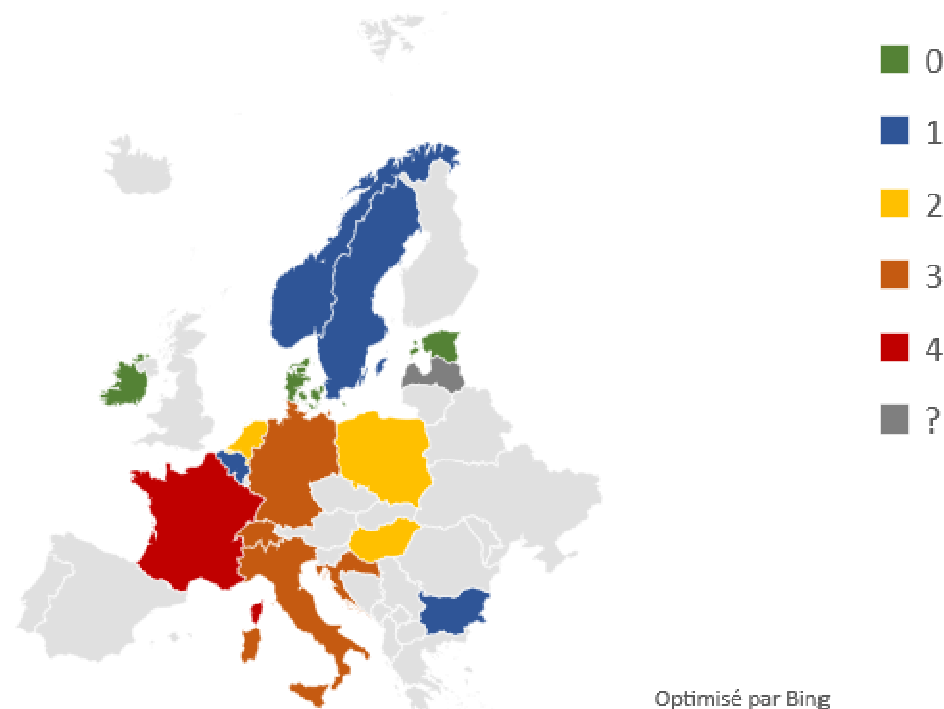


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# Specific classes for forage and baking varieties?

- Within the bread-making class, qualities are sometimes separated.

Classes for baking quality



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# Specific classes for forage and baking varieties?

- **France:** 6 classes, 4 for baking quality

## France

A': Improver wheat with original technological characteristics

A: Improver wheat

BPS: Superior bread making wheat

BP: Bread making wheat

BB: Wheat for biscuits

BAU: Wheat for other uses

Based on

- Protein content
- Hectoliter weight
- Alveogram (W, P/L, ...)
- Hardness
- Value in French bread-making
- (or test for biscuits)

And minimum yield threshold  
(yield adapted with bonus-malus)

# Specific classes for forage and baking varieties?

- **Italy and Switzerland:** 5 classes, 3 for baking quality

| Italy                            | Switzerland |
|----------------------------------|-------------|
| FF: Improver wheat               | TOP         |
| FPS: Superior bread making wheat | I           |
| FP: Ordinary bread making wheat  | II          |
| FB: Wheat for biscuits           | Feed wheat  |
| FAU: Wheat for other uses        | Biscuits    |

|                  | Indice Qtechno requis (points) | Indice agronomique requis (points) |
|------------------|--------------------------------|------------------------------------|
| <b>Top</b>       | > 130                          | > 95                               |
| <b>I</b>         | 110 à 130                      | > 103                              |
| <b>II</b>        | 80 à 110                       | >110                               |
| <b>Fourrager</b> | ≤ 80                           | >120                               |
| <b>Biscuit</b>   | Critères spécifiques           | >110                               |



# Specific classes for forage and baking varieties?

- **Germany and Poland: 4 classes**

| Germany                   | Poland             |
|---------------------------|--------------------|
| E-Quality (elite wheat)   | A - quality baking |
| A-Quality (quality wheat) | B - baking         |
| B-Quality (bread wheat)   | C - forage         |
| C-Quality (other wheat)   | K - for cakes      |

# Specific classes for forage and baking varieties?

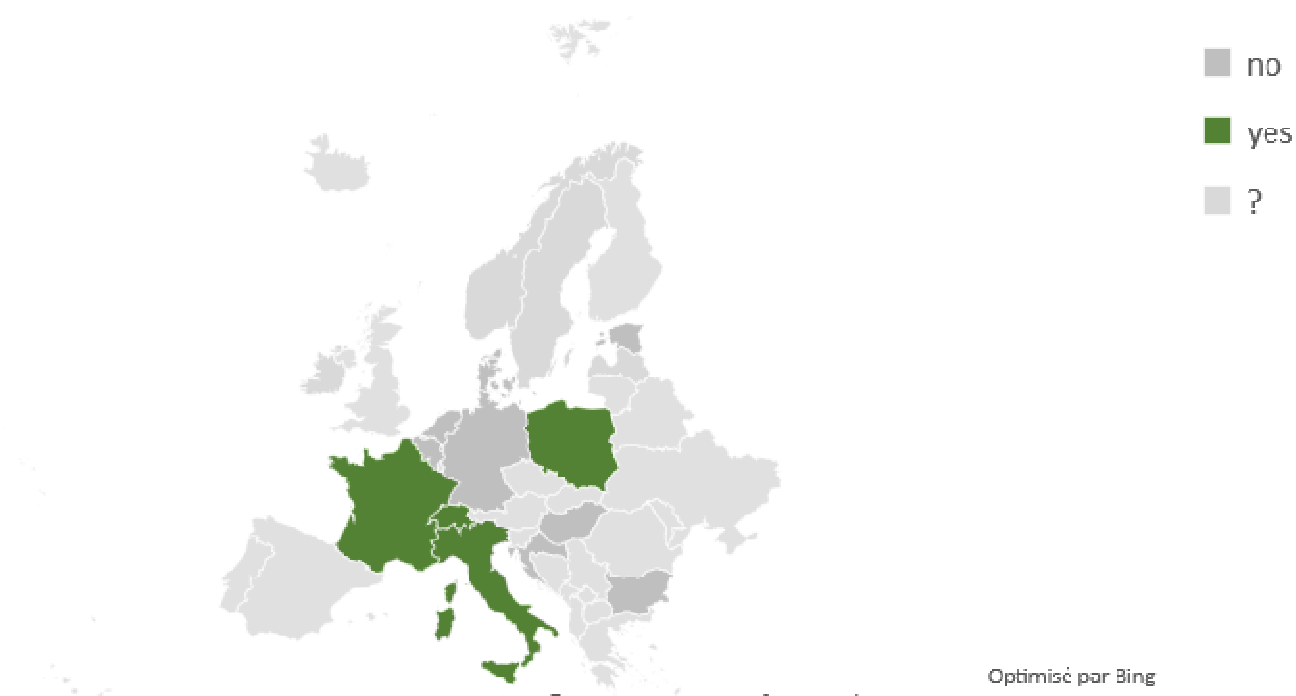
- **Croatia:** « For VCU of wheat we have got 3 standard varieties. One is like **bread conditioners** - so best quality. The second is bread making quality, variety from **eastern breeding programm** in Croatia and the third from **western breeding program**. Wheats are grouped in A/B/C groups »
- **Hungary:** premium, milling (bakery) and other uses (forage, biscuits, etc)
- **The Netherlands:** baking quality, medium baking quality and forage quality.
- **Belgium, Bulgaria, Norway:** forage and baking

# Specific class for biscuits?



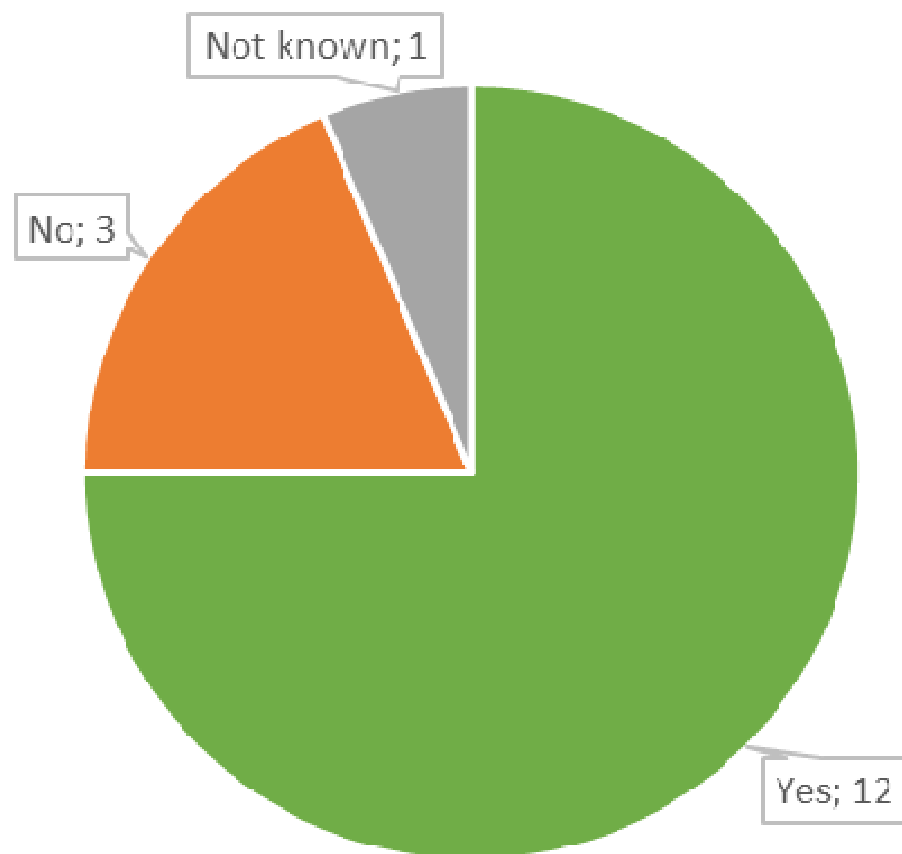
- Yes in **France, Italy, Poland** and **Switzerland**

Specific class for wheat varieties adapted to make biscuits



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# Does yield have the highest weight in the final note?



« No »: Germany, Poland and Sweden.

- “Yield is important in each classes. We haven't index, this is **expert estimation.**”
- “We do not have an index score for the listing decision. A **committee of 3 experts will decide on the VCU of a variety.** [...] Nevertheless, yield is one important characteristic.”
- “No calculation, no indices. **An expert committee will discuss each variety individually.**”

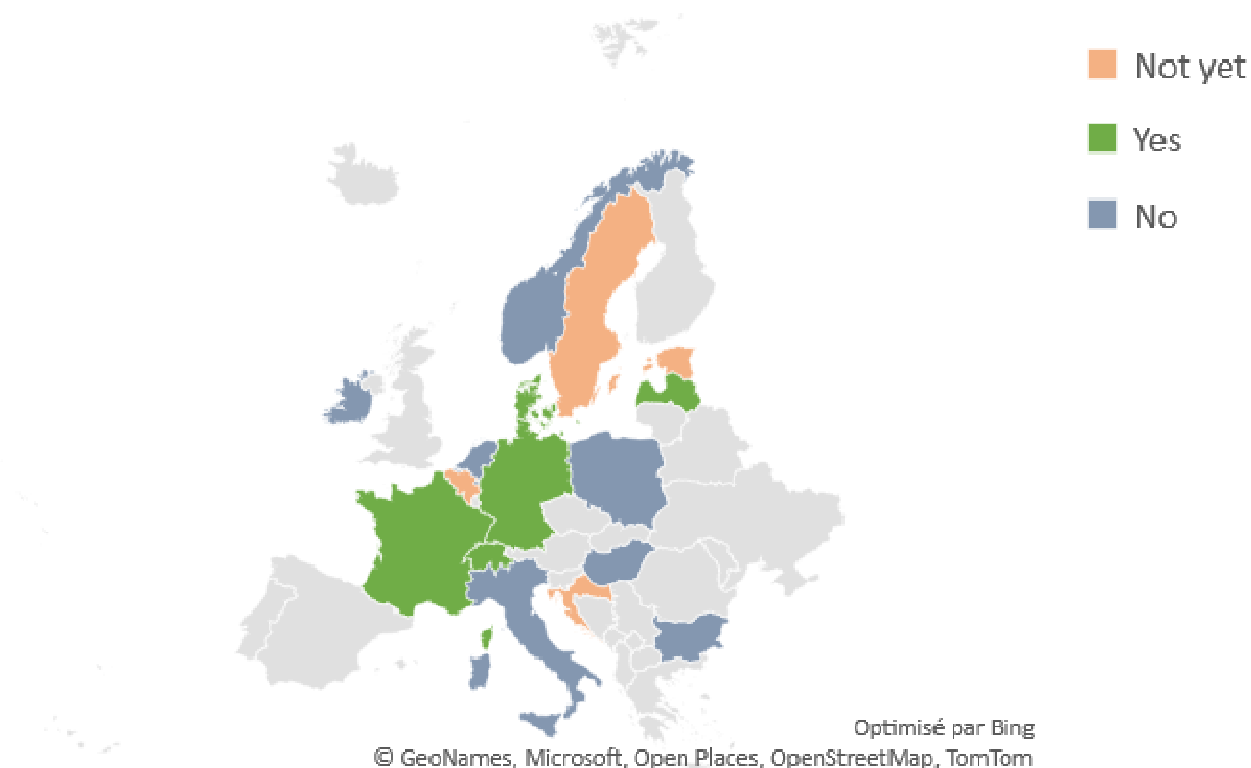
# Calculation of the final note

- Characteristics taken into account in the final note:
  - Yield
  - Disease resistance
  - Lodging
  - Earliness
  - Baking quality
  - Hectoliter weight
  - Sprouting resistance
  - ...
- Comparison with standard varieties

# Specific organic VCU for wheat?

- **Yes:** Denmark, France, Germany, Latvia, Swirzerland
- **Not yet:** Belgium, Croatia, Estonia, Sweden

Countries with organic VCU trials for winter wheat



# Thank you to the following persons for their answers

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Thank you for your attention!  
Questions or comments?



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# Annex - survey

- In the VCU protocol for wheat, do you have specific classes for forage and baking varieties ?
  - If yes. How are they defined in the final score ?
- In the VCU protocol for wheat, has yield the highest weight in the final note ?
- How the final note is calculated?
- Do you have already specific organic VCU for wheat ?
  - Yes, since...
  - No but we are thinking about it.
  - No and we are not planning to propose it.