



**FROM ITS ROOTS**  
organic inspires life.



**Organic World  
Congress 2021**

FRANCE

**SCIENCE FORUM**

**Market, Consumers & Certification**



Organic World  
Congress 2021

FRANCE

WWW.OWC.IFOAM.BIO/2021

# INFORMATION ON ORGANIC MILK PACKAGING IN COUNTRIES WITH DIFFERENT LEVELS OF ORGANIC MARKET MATURITY – A COMPARISON BETWEEN GERMANY, THE NETHERLANDS, ITALY AND POLAND

**Lisa M. BORGHOFF**

FH Münster University of Applied Sciences

**Lisa Borghoff, Friederike Elsner, Andrijana Horvat, Karolina Misztal, Anna Saba,  
Eleonora Saggia-Civitelli**



THE AUTHOR(S)/EDITOR(S) ACKNOWLEDGE THE FINANCIAL SUPPORT FOR THIS PROJECT PROVIDED BY TRANSNATIONAL FUNDING BODIES,  
BEING PARTNERS OF THE H2020 ERA-NET PROJECT, CORE ORGANIC COFUND & THE COFUND FROM THE EUROPEAN COMMISSION

COORDINATOR CREA

# Background

Organic food market in Europe has different maturity levels depending on the country:

Country	Organic retail sales in 2019 [Million €]	Maturity level of organic food market
Germany	11'970.00	High
Italy	3'625.00	Medium
The Netherlands	1'211.000	Medium
Poland	314.00	Low

Source: FiBL Statistics, <https://statistics.fibl.org/europe.html> [13.07.2021]



# Background

- Food package most important tool for consumer information
- Information can be **textual or image based**  
**mandatory or voluntary**

# Research Question

Is there a difference in the voluntary textual information on full, semi-skimmed and skimmed organic milk packages from Germany, The Netherlands, Italy and Poland?

# Method

- Market inventory for organic milk in one city in Germany, Italy, the Netherlands and Poland each
- Frequency analysis on the textual information on the package

# Method

Why drinking milk from cows?

- Simple mono-product
- Limited set of processing techniques
- Regular food product of the typical diet of the four countries (MRI, 2008; Leclercq et al., 2008; GUS, 2020; Statista, 2020)
- Enough space on package

# Method

What types of milk?

- Drinking milk from cows
- Every amount of fat
- Every type of heat treatment, except sterilization:
  - Traditional pasteurization (72-75°C for 15-30 sec)
  - Ultra high temperature treatment (135°C for 1-4 sec)
  - Combination of heating and mechanical treatment, e.g. microfiltration
- Excluded: milk for special needs, e.g. milk without lactose



# Method

Data collection: Summer 2019

Country	Maturity level of organic food market	Number of milk packages
Germany	High	37
The Netherlands	Medium	27
Italy	Medium	16
Poland	Low	13



# Analysis

- Frequency analysis
- Code system with main and sub codes:

## Main codes

Processing technique

Label

Information on raw material

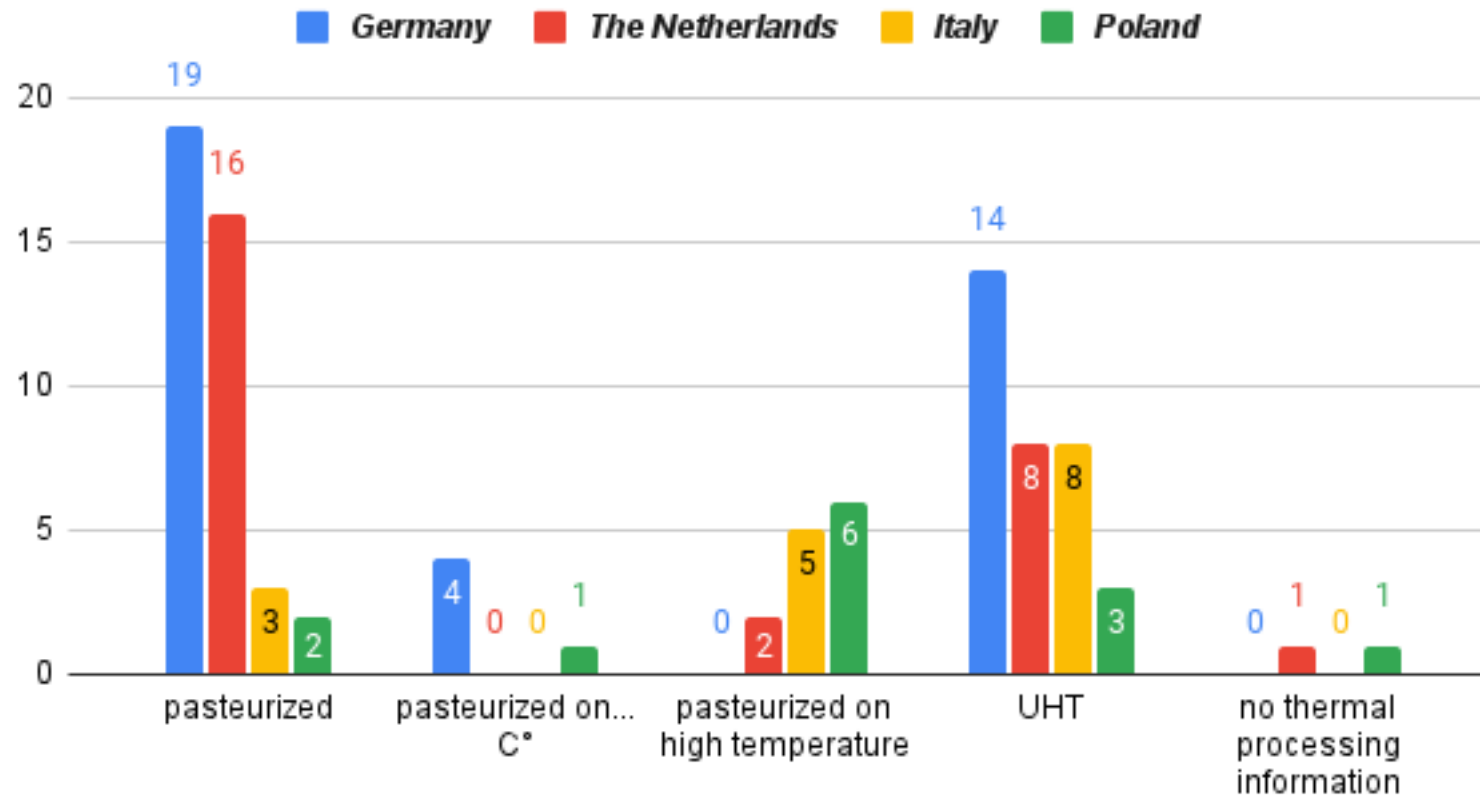
Added value

# Analysis

Main codes	Sub code
Processing technique	Heat treatment
	Homogenization
	Fat standardization or microfiltration
Label	national/international
Information on raw material	Pasture milk, hay milk, land milk, Alpine milk, mountain milk
Added value	Animal welfare
	Fodder without GMO
	Quality assurance
	Place of origin ( <i>"Organic milk from German farms"/ "We are a Polish dairy cooperative"/ "from Polish milk"</i> )
	Long tradition of production
	Emotional context (e.g. gentle)
	Sensory aspects
	Environmental sustainability
	Social sustainability

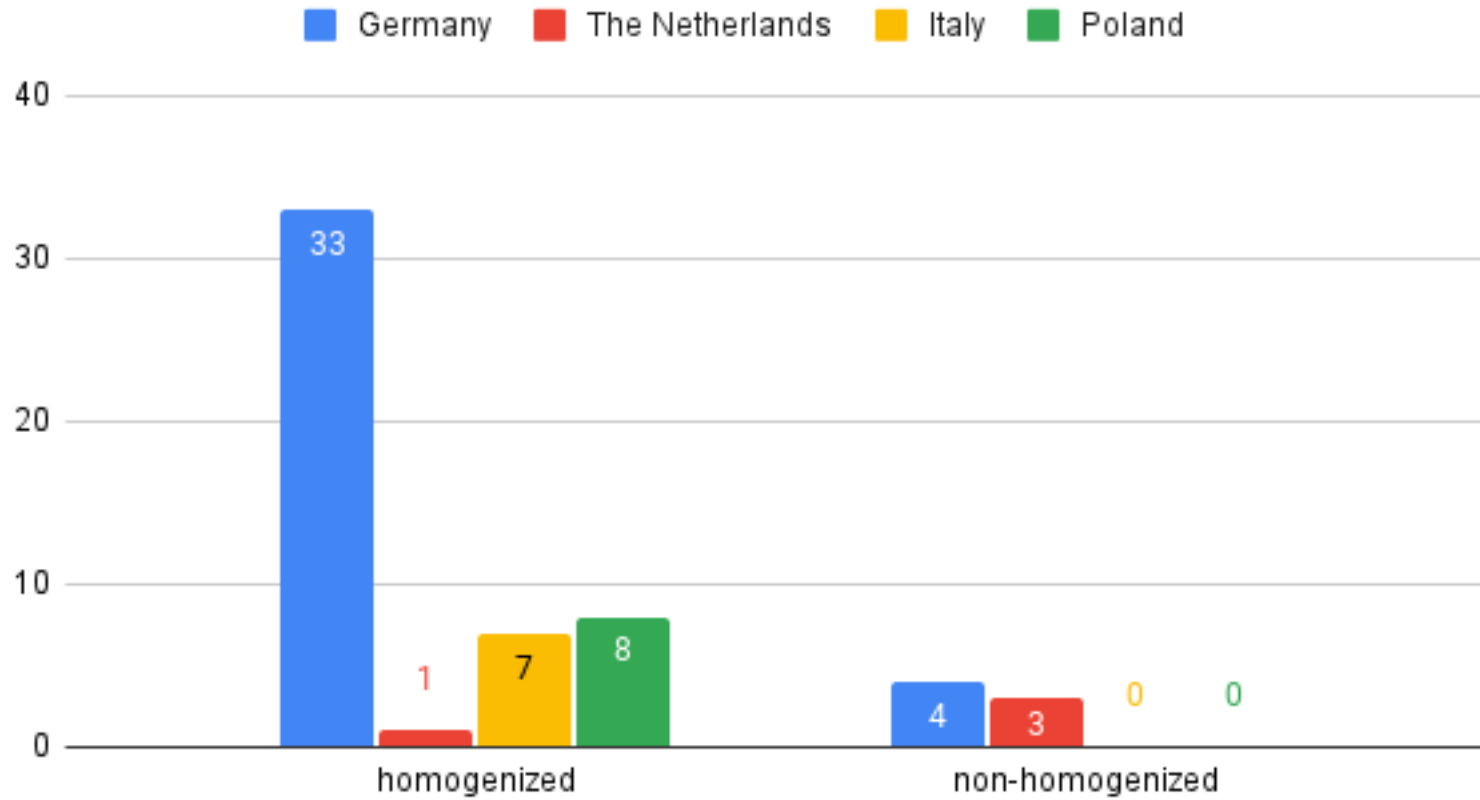
# Results

### Frequency of information on heat treatment



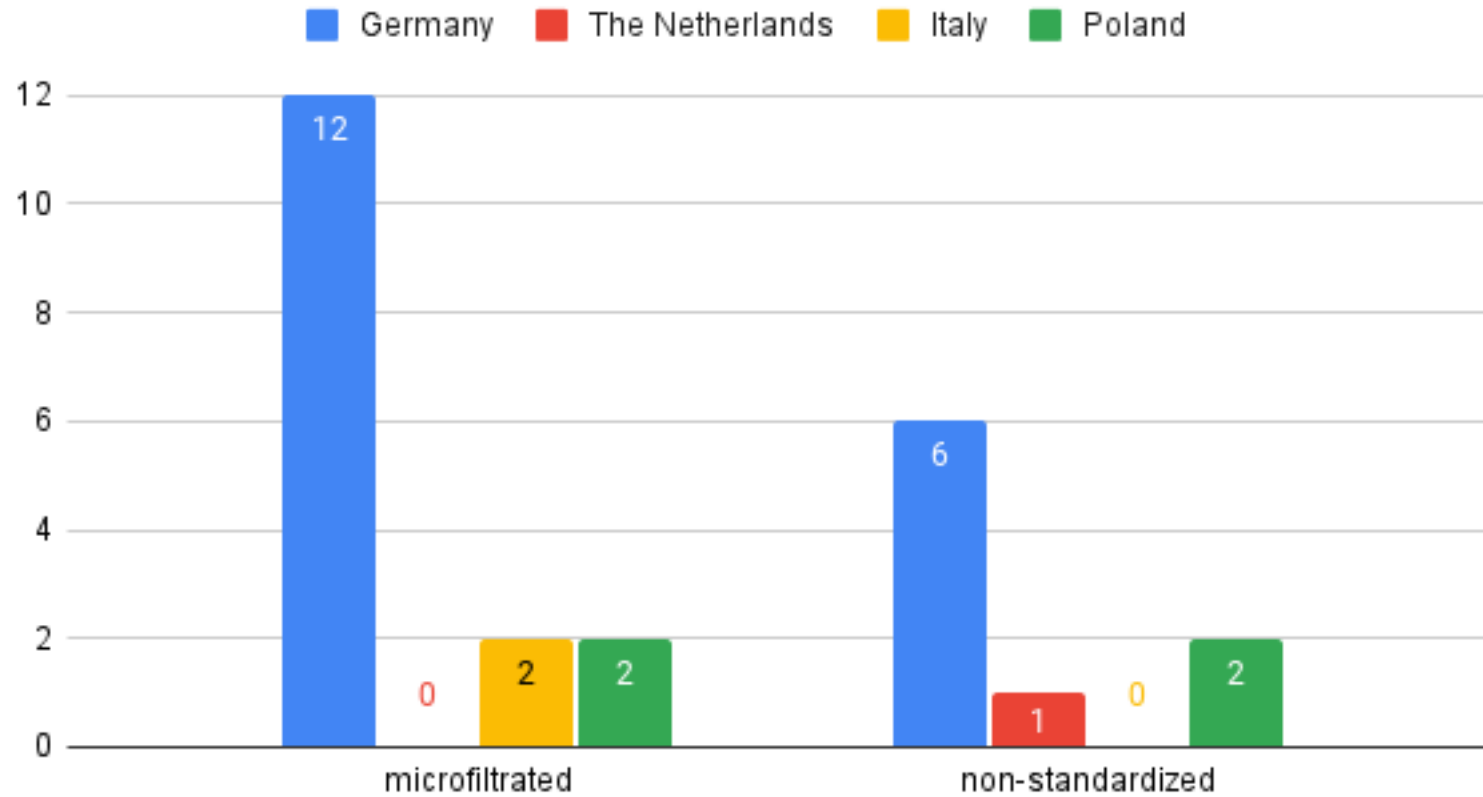
# Results

### Frequency of information on homogenization



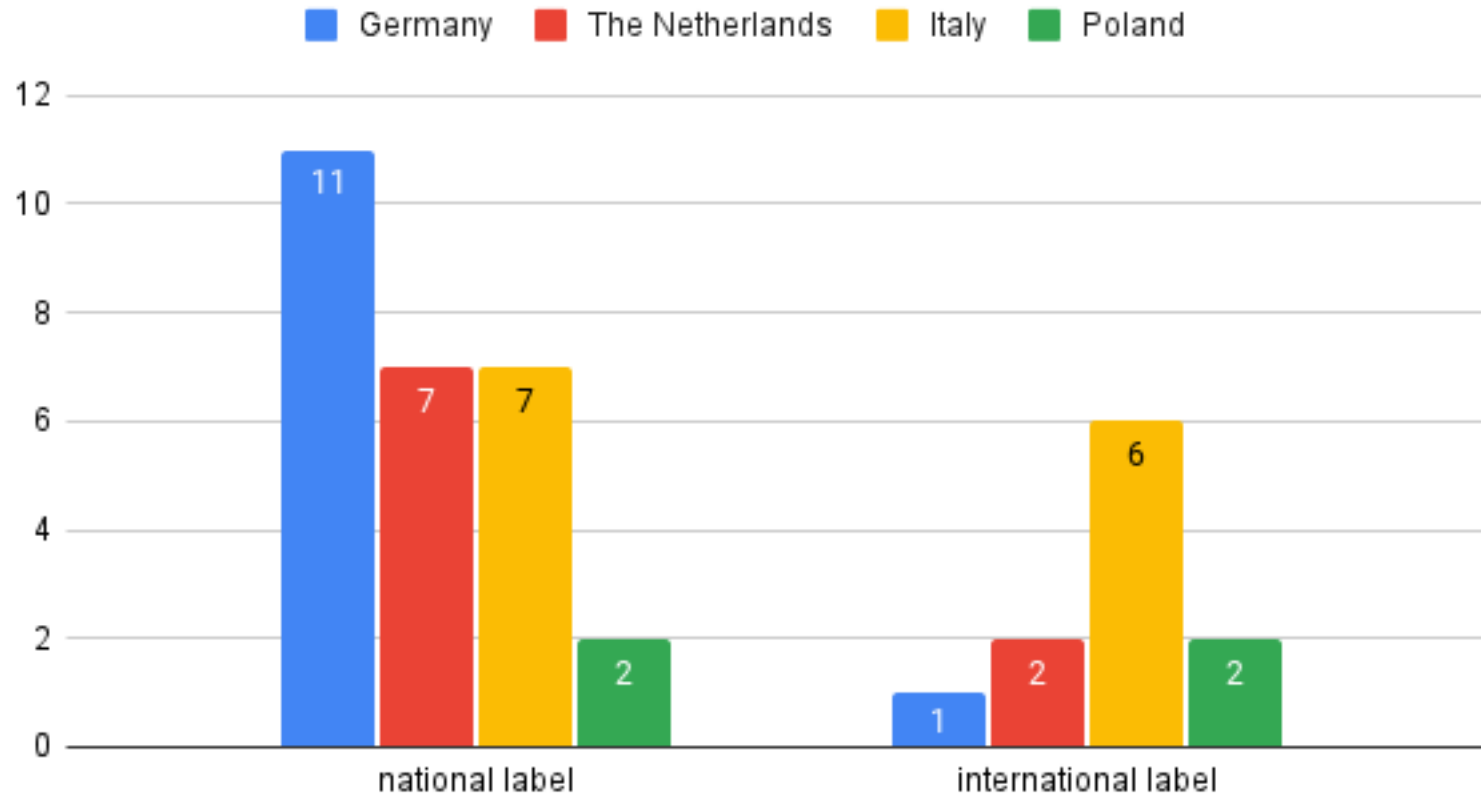
# Results

### Frequency of information on fat treatment



# Results

## Frequency of labels



### National label:

only assigned within the country of the inventory,

e.g. the label of The German Animal Welfare Federation

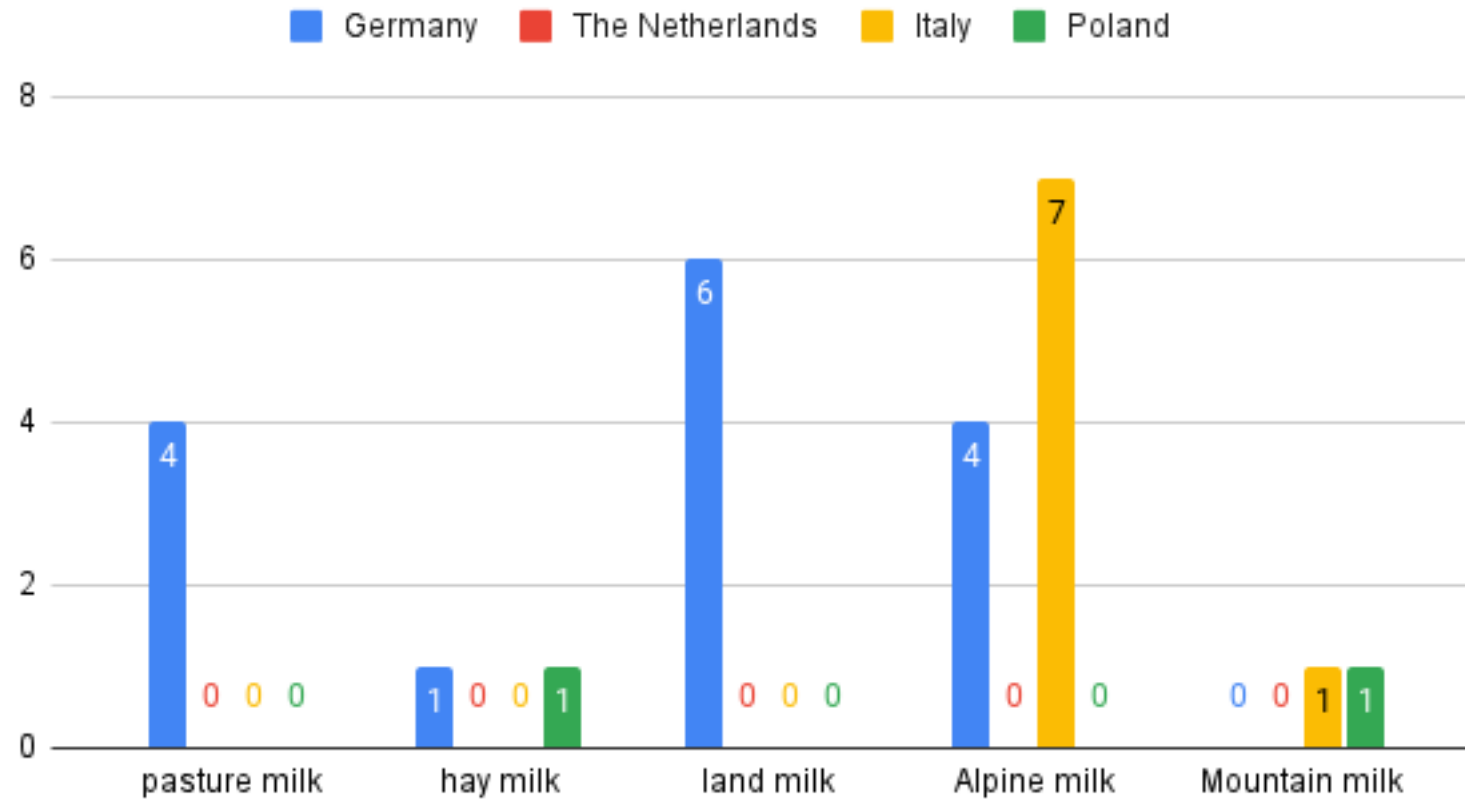
### International label:

assigned not only within the country of origin,

e.g. the EU label 'Traditional speciality guaranteed'

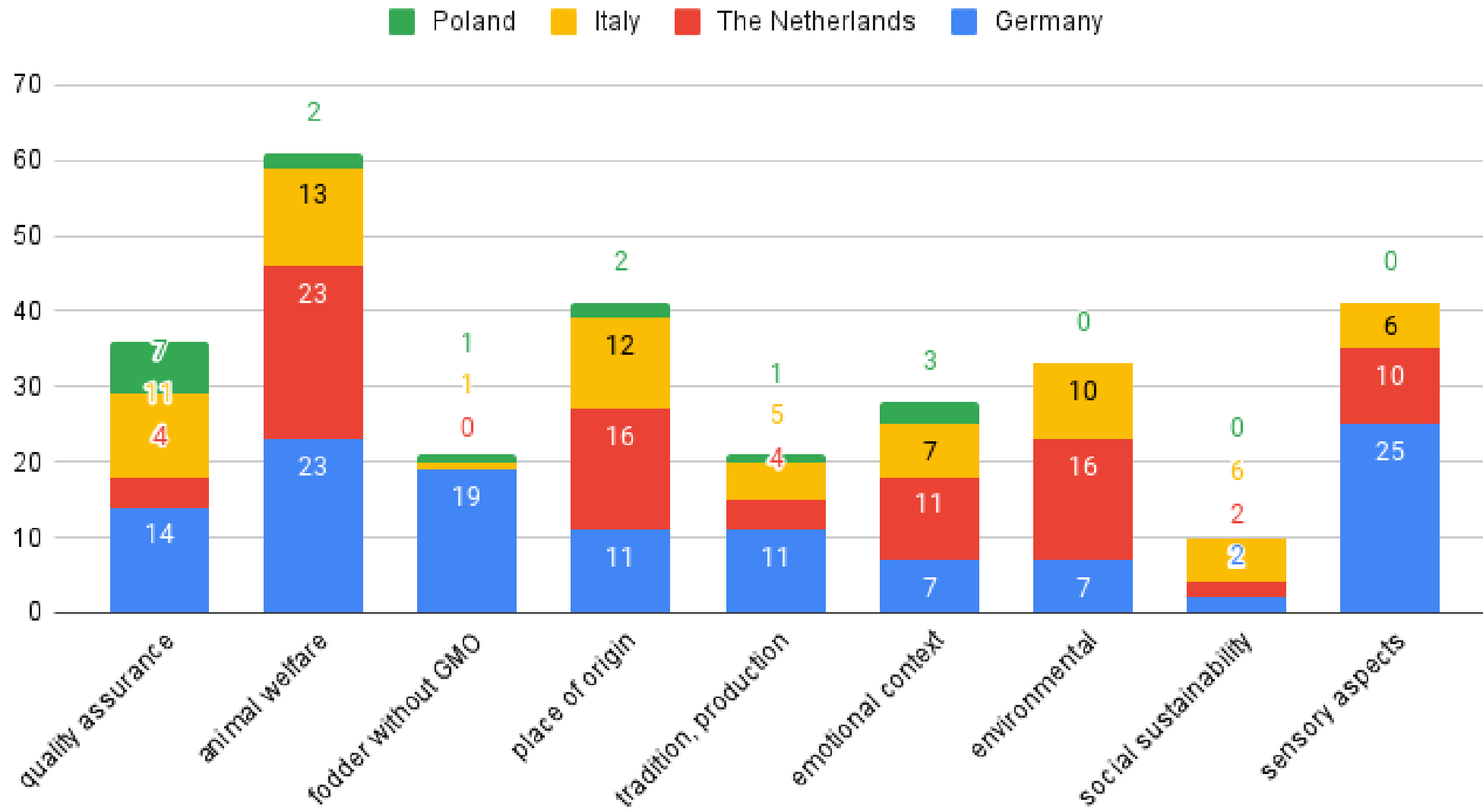
# Results

## Frequency of information on raw material





## Frequency of added value



# Discussion

- Processing techniques: few detailed information
- Labels: national labels more prominent (exception: Italian sample)
- Information on raw material: most prominent in German sample, plus GMO free fodder
- Animal welfare: most frequent (exception: Polish sample)
- Quality assurance: most frequent in Poland

# Recommendations

- Animal welfare (Akaichi et al., 2012)
- Combination: organic quality and place of origin (Thøgersen, 2010)
- Be careful: risk of information overload (Grunert & Will, 2007)

# Limitations

- Small sample, different sample size in the countries
- Need for whole market inventory

# CORE Organic Project ProOrg

Today there is a lack of mandatory standards and indications for organic food processing within the EU.

ProOrg will develop a set of strategies and tools (Code of Practice) that can help organic food processors in the selection of appropriate technologies. It will give guidance for making the best choice for careful, minimal and mild processing methods.

Please visit our website for more information:

<https://www.proorgproject.com/>

# References

Akaichi F, Nayga RM Jr., Gil JM (2012) Assessing consumers' willingness to pay for different units of organic milk: Evidence from multiunit auctions. *Canadian Journal of Agricultural Economics*, 60(4),469–494.

Grunert KG, Wills J (2007) A review of European research on consumer response to nutrition information on food labels. *Journal of Public Health*, 15(5),385–399

Langner T, Esch FR, Kühn J (2009) Produktverpackung. Das fünfte Element im Marketing-Mix. In: Langner T, Esch FR, Kühn J (Hrsg) *Handbuch Kommunikation. Grundlagen - innovative Ansätze- praktische Umsetzungen*. 1. Auflage Gabler-Verlag, Wiesbaden:286-314

Leclercq, C.; Arcella, D.; Piccinelli, R.; Sette, S.; Le Donne, C.; Turrini, A. (2008) The Italian National Food Consumption Survey INRAN-SCAI 2005–06: main results in terms of food consumption. *Public Health Nutrition*: 12(12), 2504 –2532, doi:10.1017/S1368980009005035

Luning PA, Marcelis WJ (2009) *Food quality management: a technological and managerial principles and practices*. Wageningen: Wageningen Academic Publishers.

Midmore P, Francois M, Ness M (2011). Trans-European comparison of motivations and attitudes of occasional consumers of organic products. *NJAS – Wageningen Journal of Life Sciences*, 58(3-4), 73-78.

MRI Max Rubner-Institut Bundesforschungsinstitut für Ernährung und Lebensmittel (2008) *Nationale Verzehrsstudie II - Die bundesweite Befragung zur Ernährung von Jugendlichen und Erwachsenen. Ergebnisbericht*. Online available at [https://www.mri.bund.de/fileadmin/MRI/Institute/EV/NVSII\\_Abschlussbericht\\_Teil\\_2.pdf](https://www.mri.bund.de/fileadmin/MRI/Institute/EV/NVSII_Abschlussbericht_Teil_2.pdf) [14.07.2021]

Rynek wewnętrzny w 2019 roku, tab. 23 Spożycie wybranych artykułów konsumpcyjnych na 1 mieszkańca, GUS, 30.10.2020 r

Sylvander B, François M (2006). Organic and low input food consumers: concerns and perspectives for developing the organic market in the future. Paper presented at: Joint Organic Congress, Odense, Denmark, May 30-31, <http://orgprints.org/7212/> [27.07.2021]

Statista (2020) Milk consumption in the Netherlands from 2013 to 2019. Online available at <https://www.statista.com/statistics/713835/milk-consumption-in-the-netherlands/> [27.07.2021]

Thøgersen J (2010). Country differences in sustainable consumption: the case of organic food. *Journal of Macromarketing* 30(2),171-185



**Organic World  
Congress 2021**

FRANCE

**SEPTEMBER 6<sup>TH</sup> TO 10<sup>TH</sup> 2021 IN RENNES**

AT THE COUVENT DES JACOBINS • RENNES MÉTROPOLE CONFERENCE CENTRE

**THE WORLD ORGANIC CONGRESS IN 2021, IT'S HERE!**

[WWW.OWC.IFOAM.BIO/2021](http://WWW.OWC.IFOAM.BIO/2021)

**Thank you!**

FOR MORE INFORMATION PLEASE CONTACT: [papers@owc2020.bio](mailto:papers@owc2020.bio)