



# Can reshoring EU agriculture create opportunities?

A sensitivity analysis of reshoring EU's food-agri sector  
on regional jobs

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# Global supply chains being reconsidered in the post pandemic world– now triggered by wars



Stronger value chains, not reshoring, are needed after the COVID-19 shock

PAUL BRENTON, MICHAEL FERRANTINO & MARYLA MALISZEWSKA | MARCH 03, 2022



## Following Pandemic, War in Ukraine Brings New Threat to Food Security

Russia and Ukraine combine for nearly a third of the world's wheat and barley exports, and Ukraine also is a major supplier of corn and the global leader in sunflower oil.

Mar 10th, 2022 | By Julhas Alam

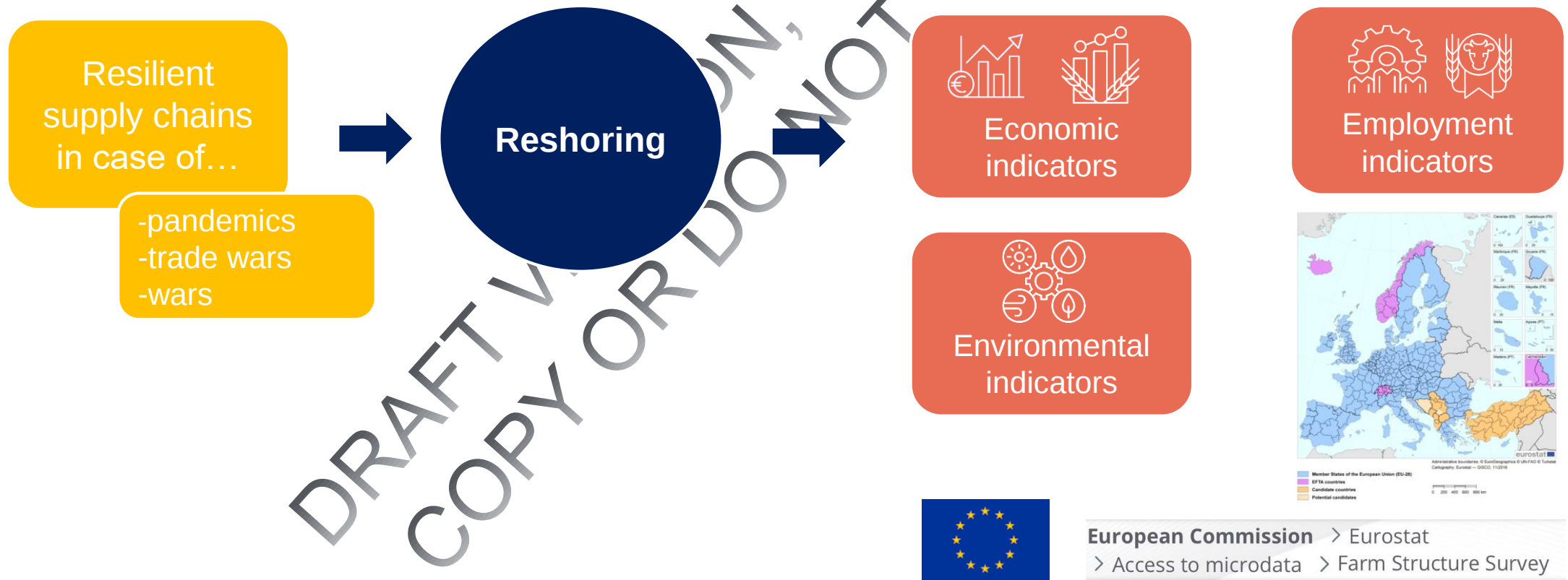


## Agrifood Brief: From food sovereignty to food security

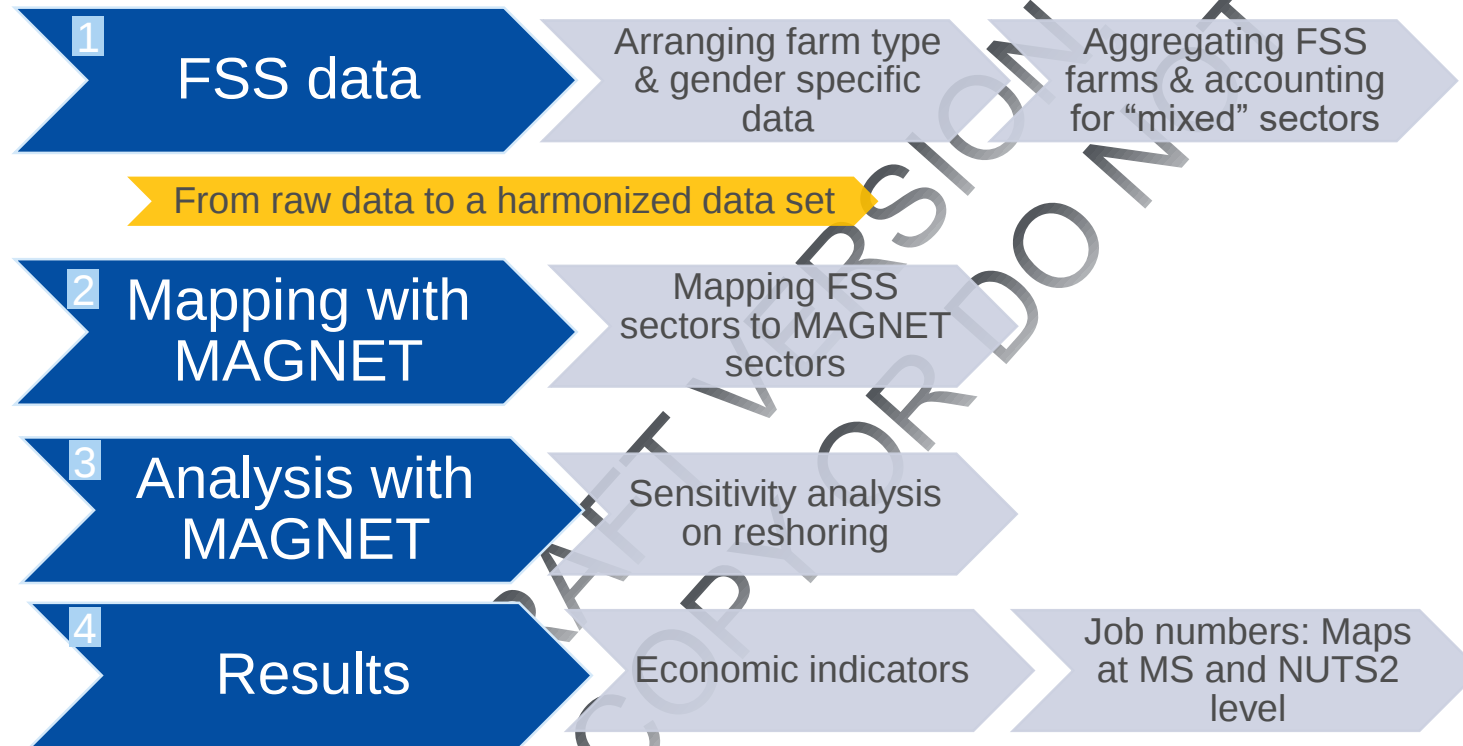
By EURACTIV's Agrifood Hub and Natasha Foote | EURACTIV.com

May 27, 2022

# What would be the impact of reshoring for food-agri on economic and employment in EU27?



# Four main pillars of the exercise: Starting with raw data to generating visual maps



# Farm structure survey (FSS) data

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# FSS data is available per 22 farm type and per gender at the MS and NUTS2 level

|                                                                                   |         | SEX     |       |         |
|-----------------------------------------------------------------------------------|---------|---------|-------|---------|
|                                                                                   |         | WSTATUS |       |         |
|                                                                                   |         | Total   | Males | Females |
|                                                                                   |         | Total   | Total | Total   |
| Total                                                                             | Belgium | 55,350  | :     | :       |
| Specialist cereals, oilseed and protein crops (calculated with Standard Output)   | Belgium | 1,240   | :     | :       |
| General field cropping (calculated with Standard Output)                          | Belgium | 7,460   | :     | :       |
| Specialist horticulture indoor (calculated with Standard Output)                  | Belgium | 6,210   | :     | :       |
| Specialist horticulture outdoor (calculated with Standard Output)                 | Belgium | 2,200   | :     | :       |
| Other horticulture (calculated with Standard Output)                              | Belgium | 1,190   | :     | :       |
| Specialist vineyards (calculated with Standard Output)                            | Belgium | :       | :     | :       |
| Specialist fruit and citrus fruit (calculated with Standard Output)               | Belgium | 3,870   | :     | :       |
| Specialist olives (calculated with Standard Output)                               | Belgium | :       | :     | :       |
| Various permanent crops combined (calculated with Standard Output)                | Belgium | 380     | :     | :       |
| Specialist dairying (calculated with Standard Output)                             | Belgium | 7,500   | :     | :       |
| Specialist cattle-rearing and fattening (calculated with Standard Output)         | Belgium | 6,250   | :     | :       |
| Cattle-dairying, rearing and fattening combined (calculated with Standard Output) | Belgium | 4,870   | :     | :       |
| Sheep, goats and other grazing livestock (calculated with Standard Output)        | Belgium | 1,300   | :     | :       |
| Specialist pigs (calculated with Standard Output)                                 | Belgium | 3,220   | :     | :       |
| Specialist poultry (calculated with Standard Output)                              | Belgium | 1,090   | :     | :       |
| Various granivores combined (calculated with Standard Output)                     | Belgium | 120     | :     | :       |
| Mixed cropping (calculated with Standard Output)                                  | Belgium | 1,290   | :     | :       |
| Mixed livestock, mainly grazing livestock (calculated with Standard Output)       | Belgium | 1,010   | :     | :       |
| Mixed livestock, mainly granivores (calculated with Standard Output)              | Belgium | 1,030   | :     | :       |
| Field crops-grazing livestock combined (calculated with Standard Output)          | Belgium | 3,890   | :     | :       |
| Various crops and livestock combined (calculated with Standard Output)            | Belgium | 1,190   | :     | :       |
| Non-classified farms (calculated with Standard Output)                            | Belgium | 50      | :     | :       |

Source: Eurostat, 2021

# We grouped 22 FSS sectors under four main headers, and mapped them with the MAGNET database

| FSS - subsectors                                                                                                                                                                | FSS - main sectors                          | MAGNET sectors                                                                                               |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------|
| Specialist cereals, oilseed and protein crops<br>General field cropping<br>Specialist olives                                                                                    | Specialist field crops and olives           | Paddy rice (pdr), wheat (wht), cereal grains nec (gro), oil seeds (osd), crops nec (ocr), plant fibres (pfb) |
| Specialist horticulture indoor<br>Specialist horticulture outdoor<br>Other horticulture<br>Specialist vineyards<br>Specialist fruit and citrus fruit<br>Various permanent crops | Specialist horticulture and permanent crops | Vegetables, fruits and nuts (vfn)                                                                            |
| Specialist dairying<br>Specialist cattle-rearing and fattening<br>Cattle-dairying, rearing and fattening combined<br>Sheep, goats and other grazing livestock                   | Specialist grazing livestock                | Raw milk (rmk), beef (bfctl), bovine cattle, sheep and goats (ctl), wool (wol)                               |
| Specialist pigs<br>Specialist poultry<br>Various granivores combined                                                                                                            | Specialist granivores livestock             | Animal products nec (oap), poultry live animals (pltry)                                                      |

Source: Authors' own illustration, 2021

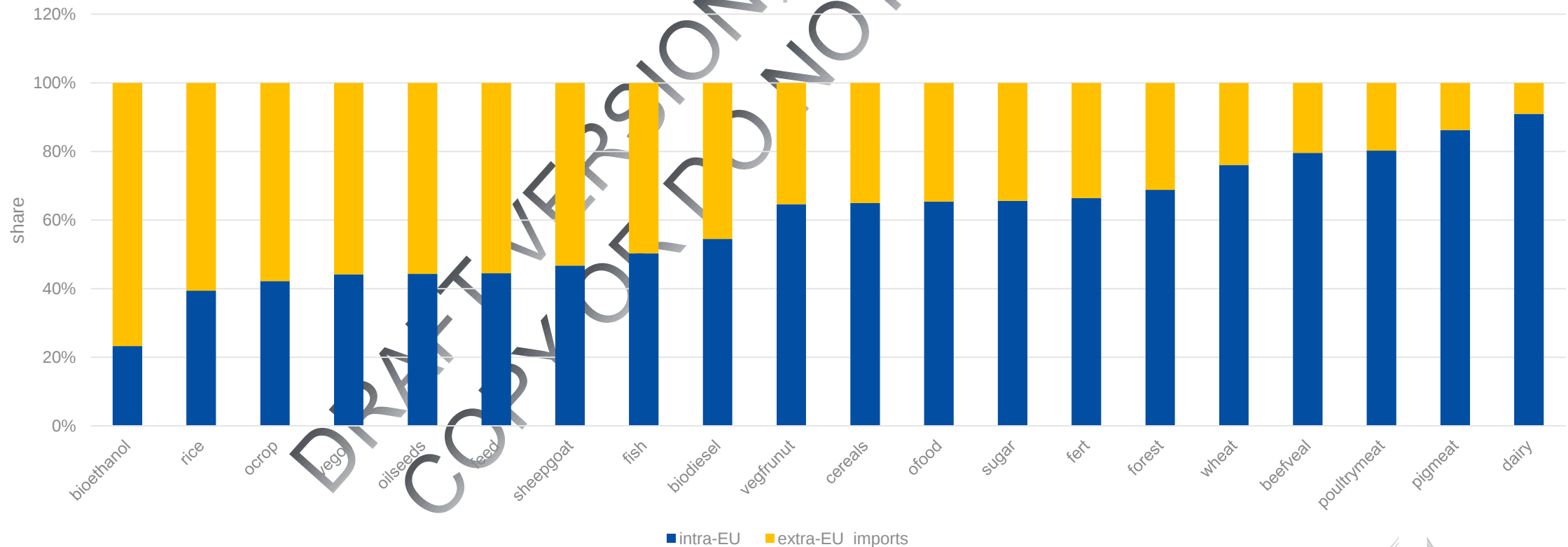
# Analysis with MAGNET

# Sensitivity analysis with “Twisters”

- *Favouring NEU imports to the EU and disfavouring EU imports to the EU with “twisters”*
- *e.g. -10 means that the NEU import expenditure share decreases 10% relative to the EU import expenditure share (overall expenditure unchanged, other things equal such as relative import prices)*

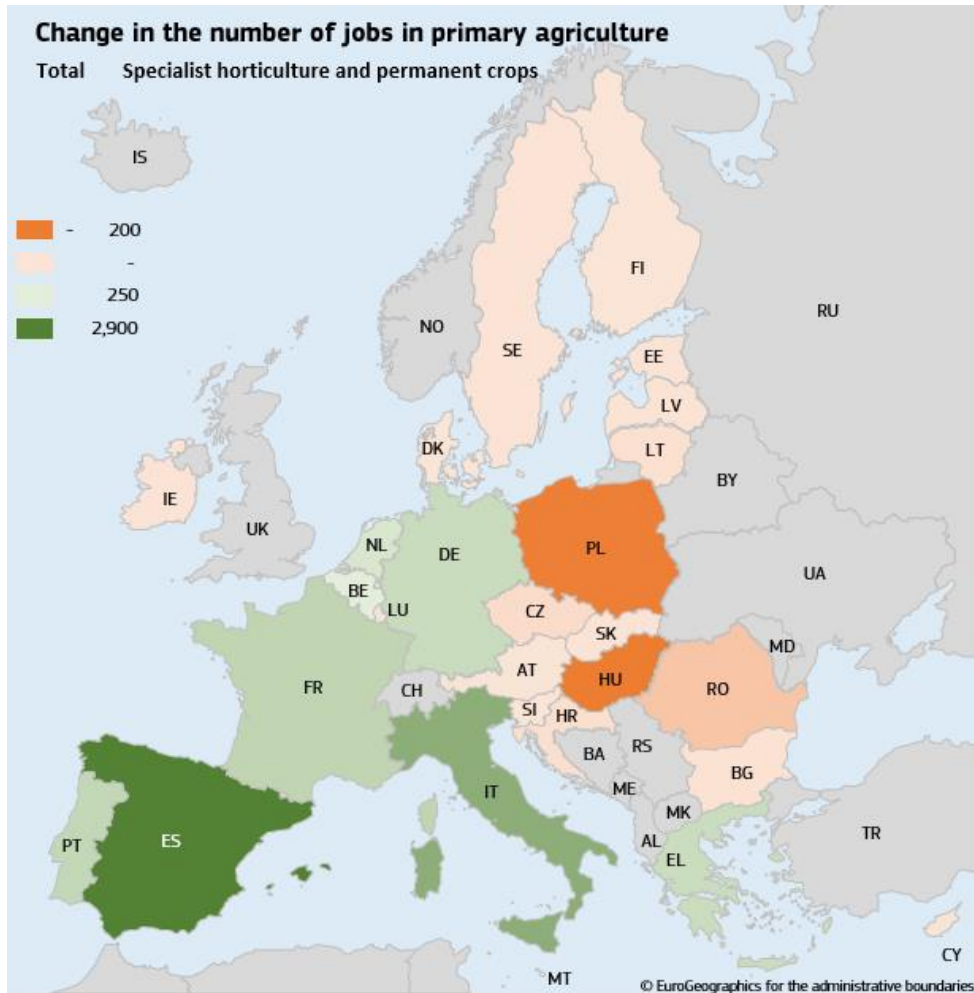
# The EU is most self sufficient in dairy and animal protein

## Intra vs. extra-EU import shares, 2020



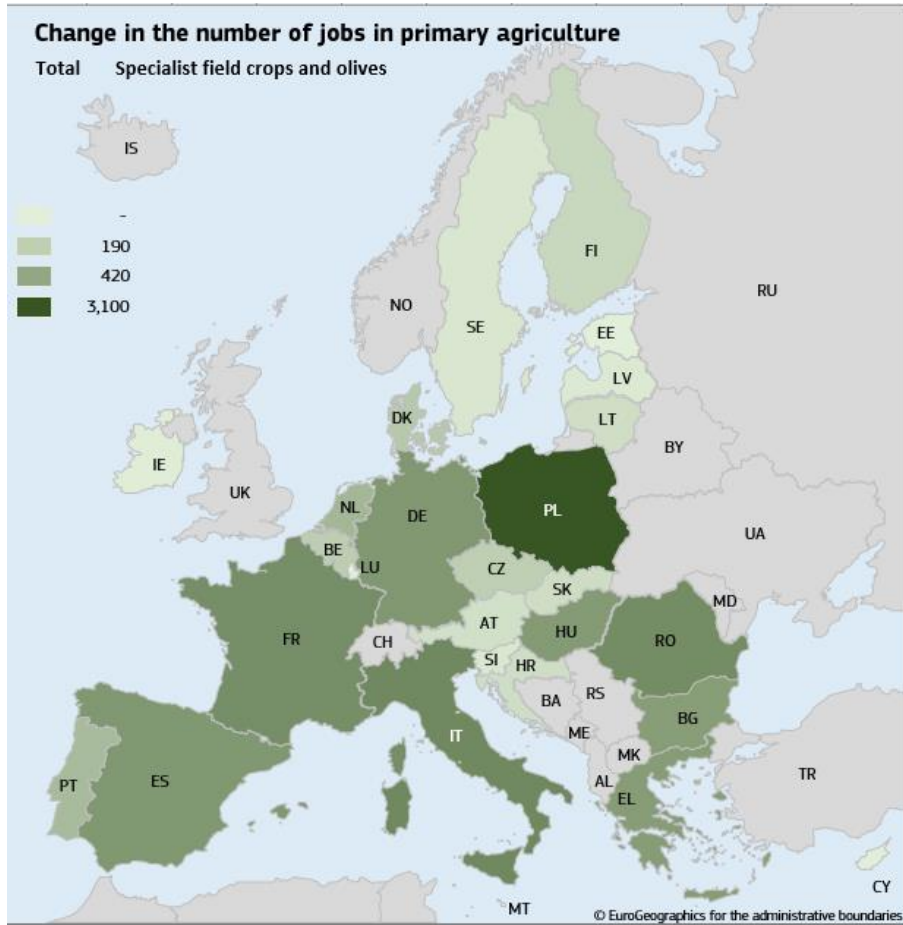
# Impact on rural jobs

# Change in job numbers – Specialist field horticulture and permanent crops (baseline vs Scenario 3)



- Highest increase in the number of jobs in Spain led by the increase in intra-EU trade and production
- Slight decrease in number of jobs in Poland and Hungary

# Change in job numbers – Specialist field crops and olives (baseline vs Scenario 3)



- Highest increase in the number of jobs for field crops happens in Poland
- A shift from horticulture to field crops in Poland followed by Hungary and Romania

# Thank you!

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