



# Mapping regional innovation ecosystems

– regional concentrations and value chains  
in agri-food sector

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# Why is mapping important and how to proceed

If agriculture and food production is important in your regional economy, it is worth to ask a few questions:

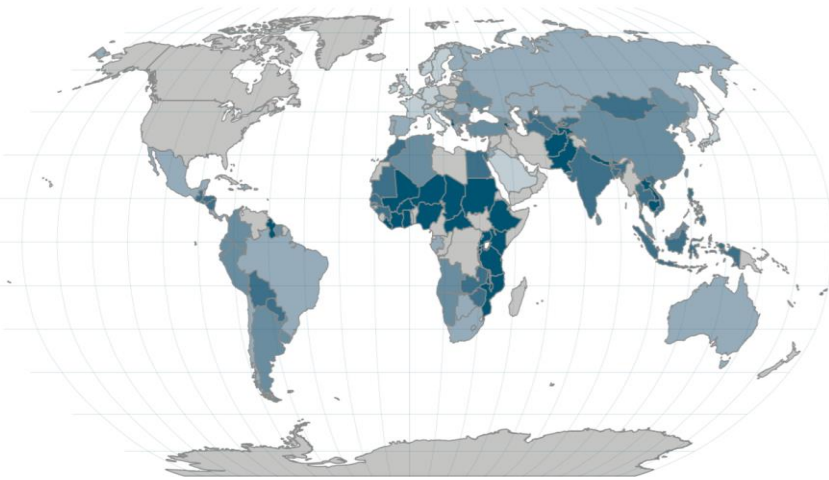
Issue	What to do	How
Is the dominance of this sector significant in comparison to others?	Verify regional concentrations nationally and internationally	Location quotients (LQ)
Is this sector growing or declining?	Check if the share in regional economy is growing	Shift-share analysis
Is the sector located only in part of your region?	Identify subregional concentrations	Subregional LQ
What exactly do you produce?	Analyse the structure of regional food production	Sub NACE codes, agricultural data on crops
Are you competitive internationally with what you produce?	Check production levels and share in the world markets	Use existing research or benchmark
How exactly does the production happen, where are strengths and weaknesses?	Check the regional value chain in wider context	Entrepreneurial discovery

# Stage 1 – international concentrations

## European concentrations

Context: global importance

No data available 0 ~ < 2.3 2.3 ~ < 6.3 6.3 ~ < 11 11 ~ < 21 21 - 55.84



GDP share, source: FAO

LQ for employment and GVA, source: CPP, M. Matusiak, W. Kisiąła

Employees 2013 - Agriculture, forestry and fishing - location quotient (LQ):

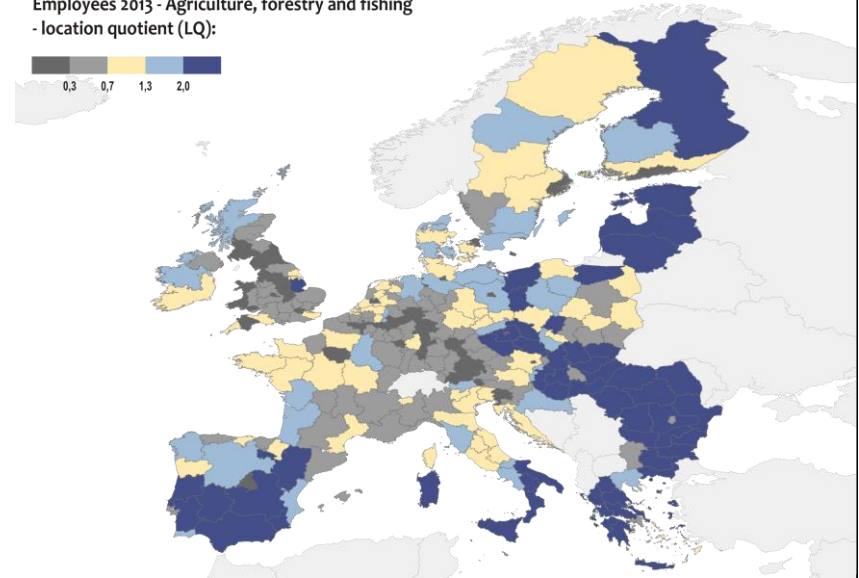
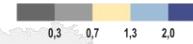
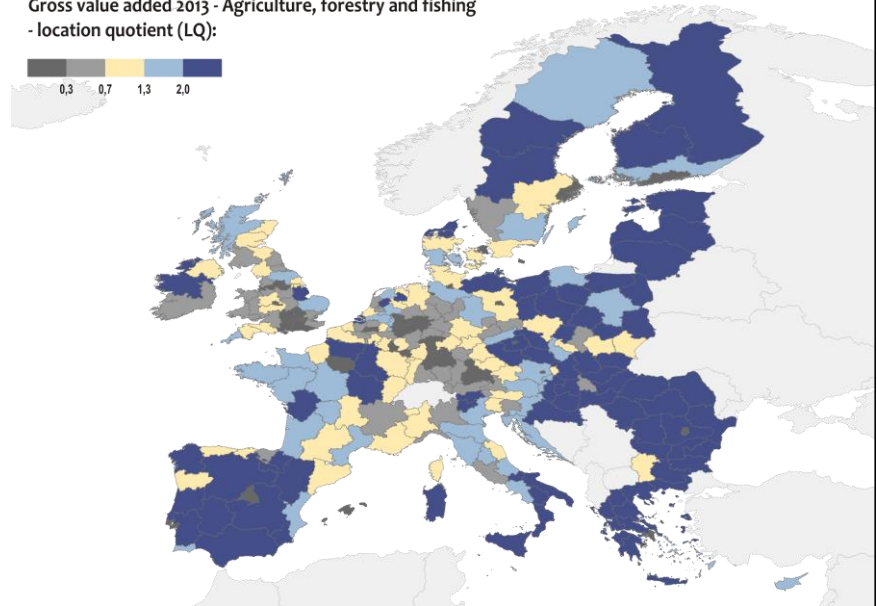
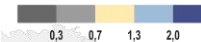


FIGURE 1: Value added in agriculture as share of GDP (percent, 2012)

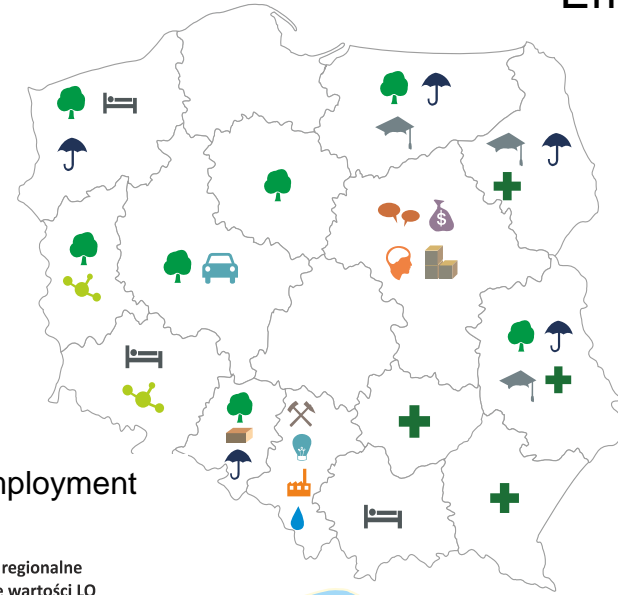
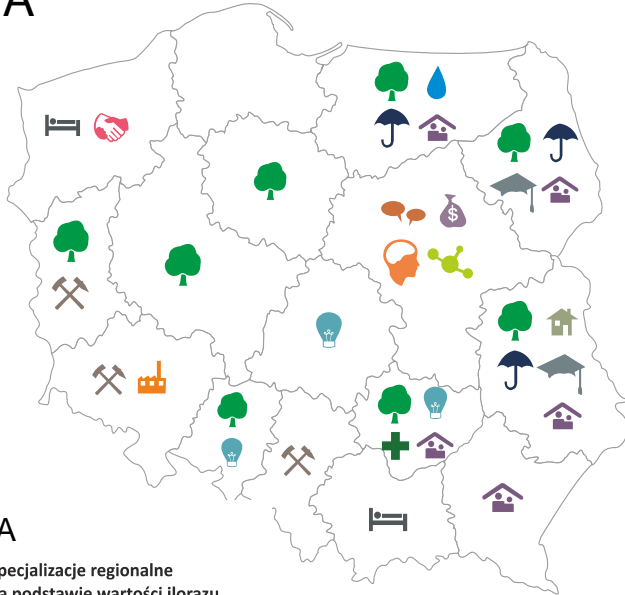
Gross value added 2013 - Agriculture, forestry and fishing - location quotient (LQ):



# Stage 2 – national concentrations and their changes

GVA

Employment

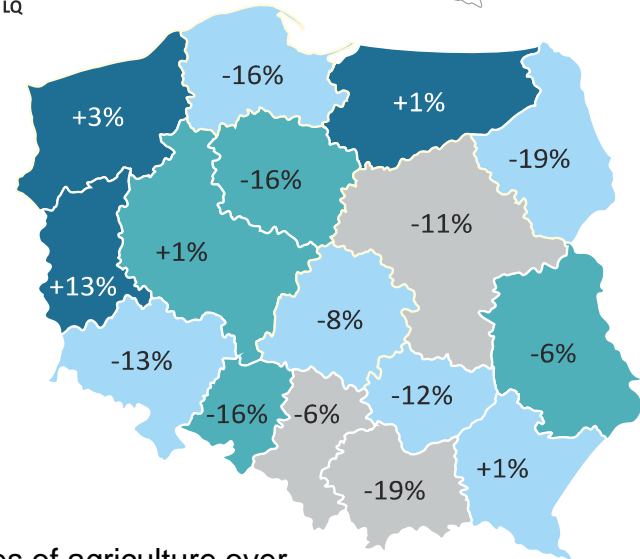
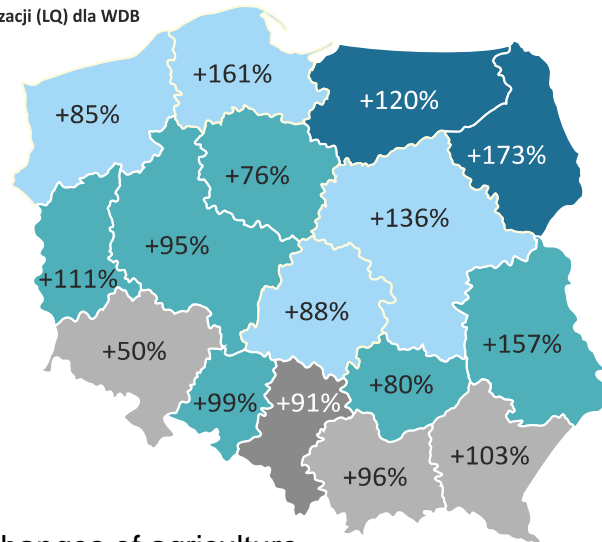


LQ for GVA

Specjalizacje regionalne na podstawie wartości ilorazu lokalizacji (LQ) dla WDB

LQ for employment

Specjalizacje regionalne na podstawie wartości LQ dla zatrudnienia



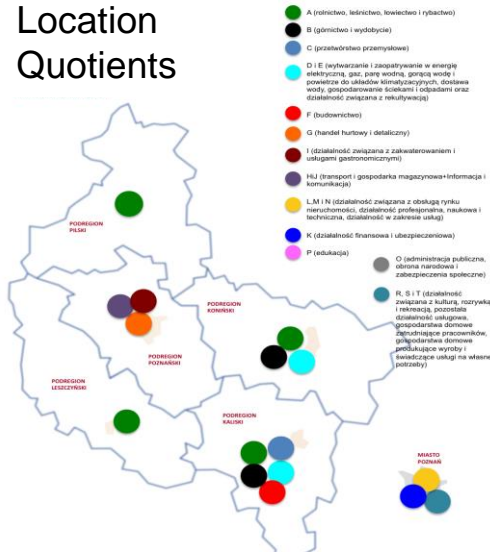
Shift-share changes of agriculture over 10 years

Shift-share changes of agriculture over 10 years – employment

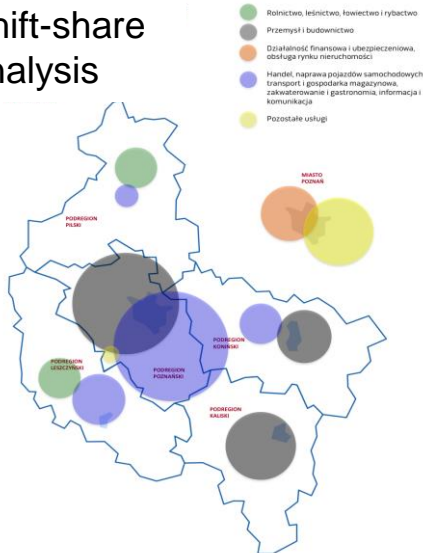
# Stage 3 – subregional concentrations and their changes

## Employment

### Location Quotients

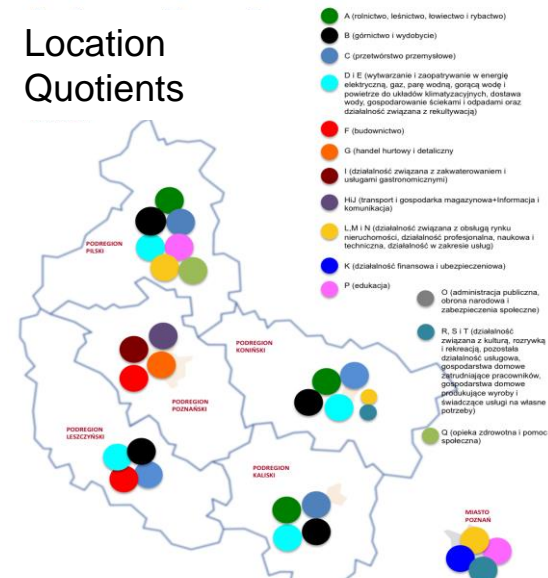


### Shift-share analysis

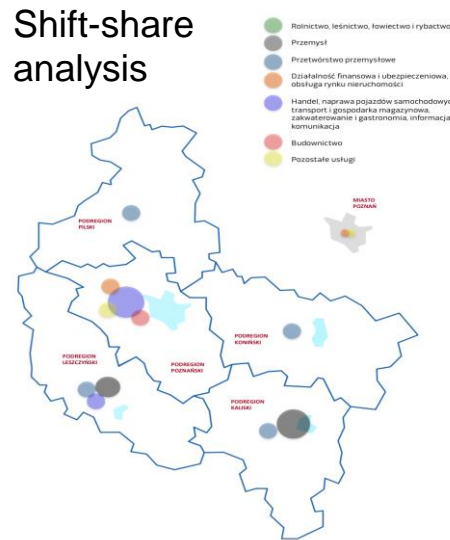


## GVA

### Location Quotients

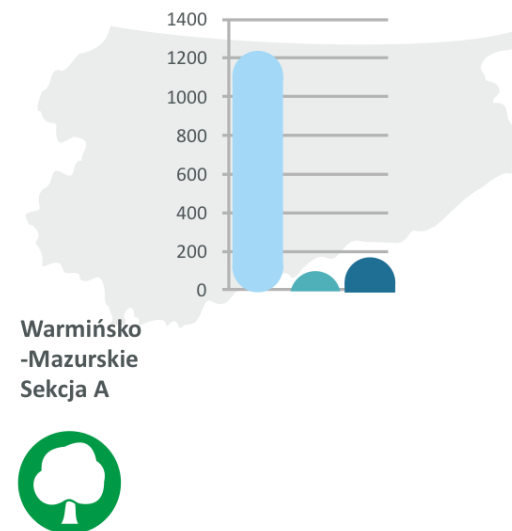
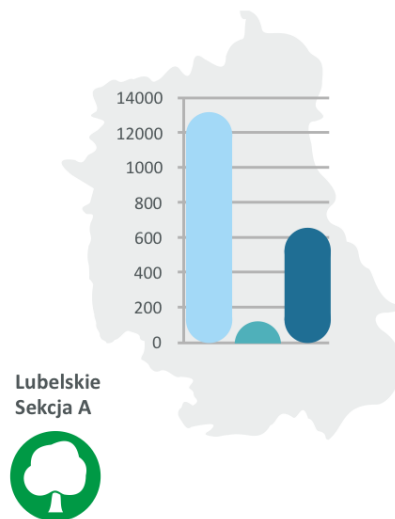
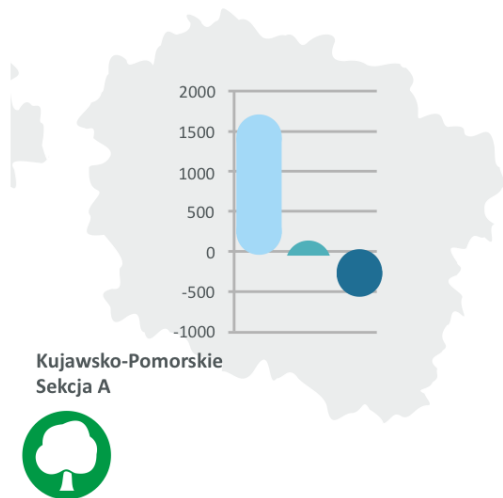


### Shift-share analysis



Source: M. Matusiak for Wielkopolska region

# Stage 4 – How competitive you really are?



- National effect
- Structural effect
- Regional effect

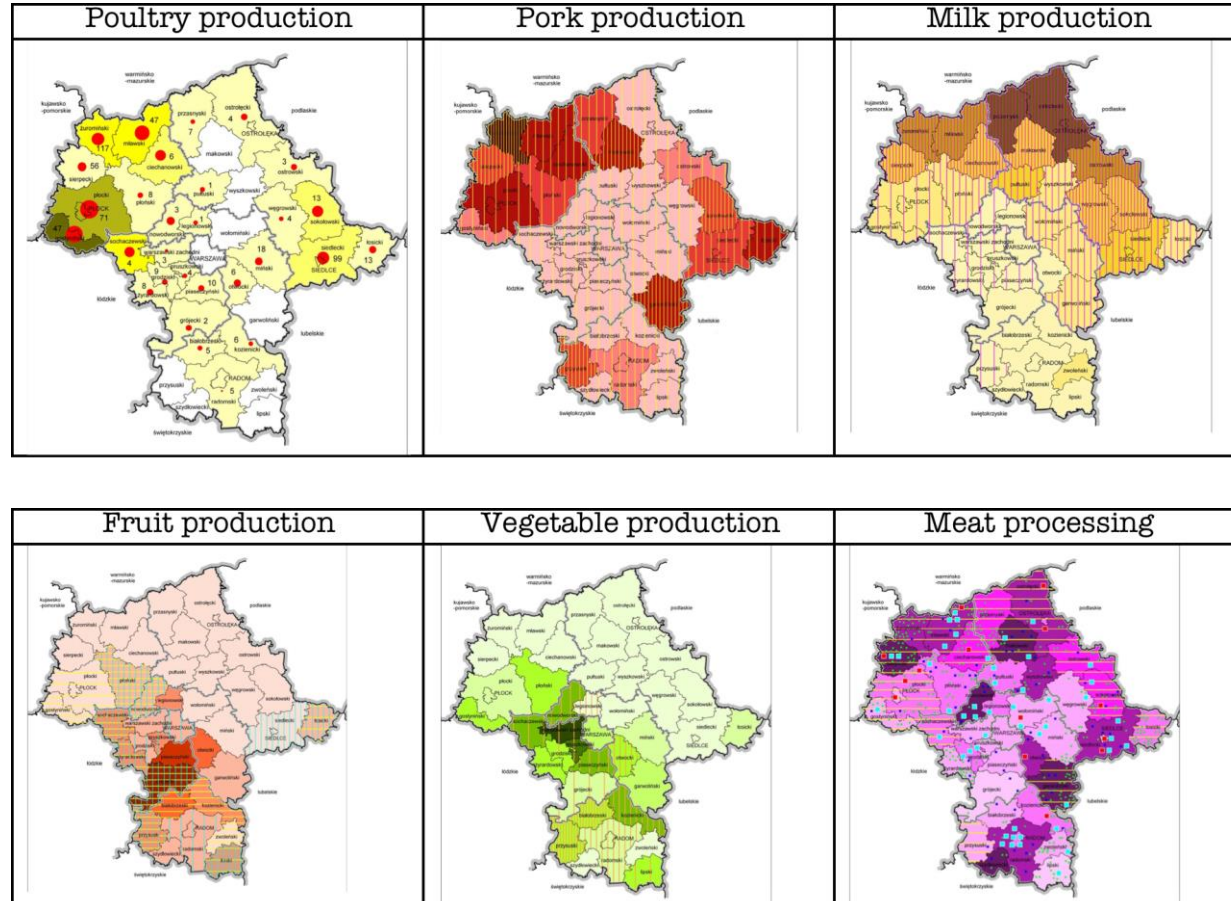
source: CPP, M.  
Matusiak, W. Kisiąła

# Stage 5 – What do you actually produce?

Wielkopolska



Mazovia

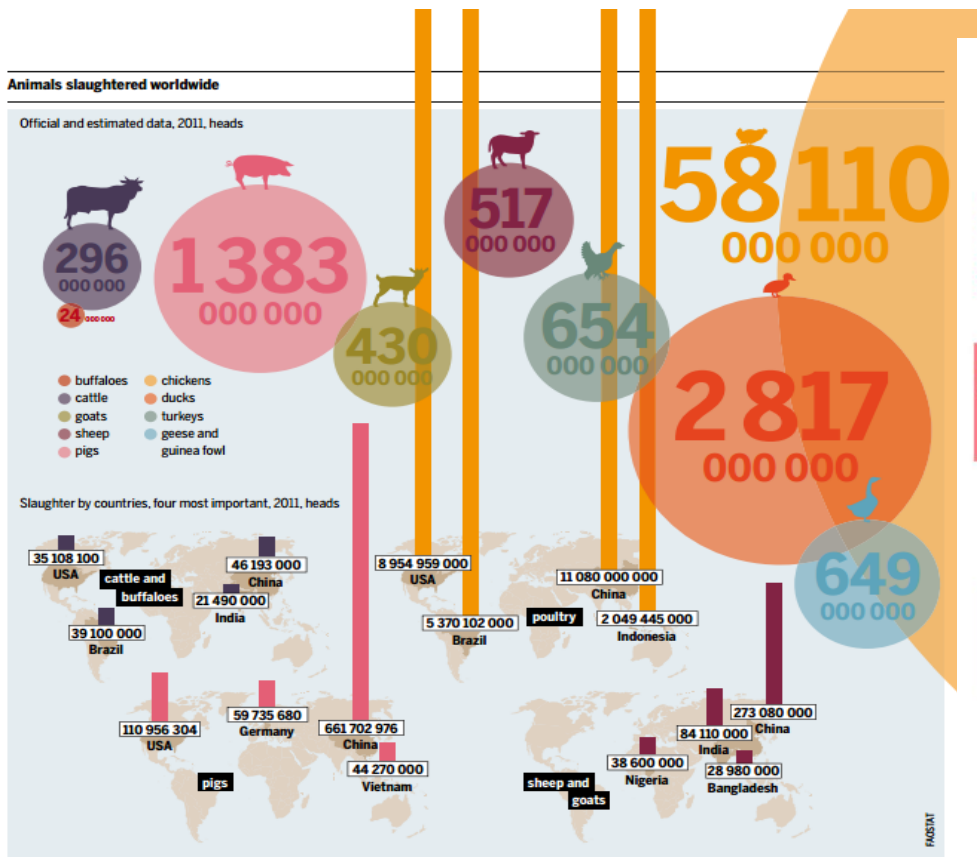


- Du** – agricultural services
- M** – meat production and processing
- O** – fruit and vegetable processing
- T** – oil and fat production
- MI** – milk processing
- z** – grain and starch production
- P** – fodder production
- A** – Food processing
- N** – Drinks production
- Hp** – agricultural wholesale
- Hz** – food products wholesale
- Wm** – renting of agricultural machinery
- RM** – production of agricultural machinery

Source: Cluster analyses for Wielkopolska and Mazovia regions

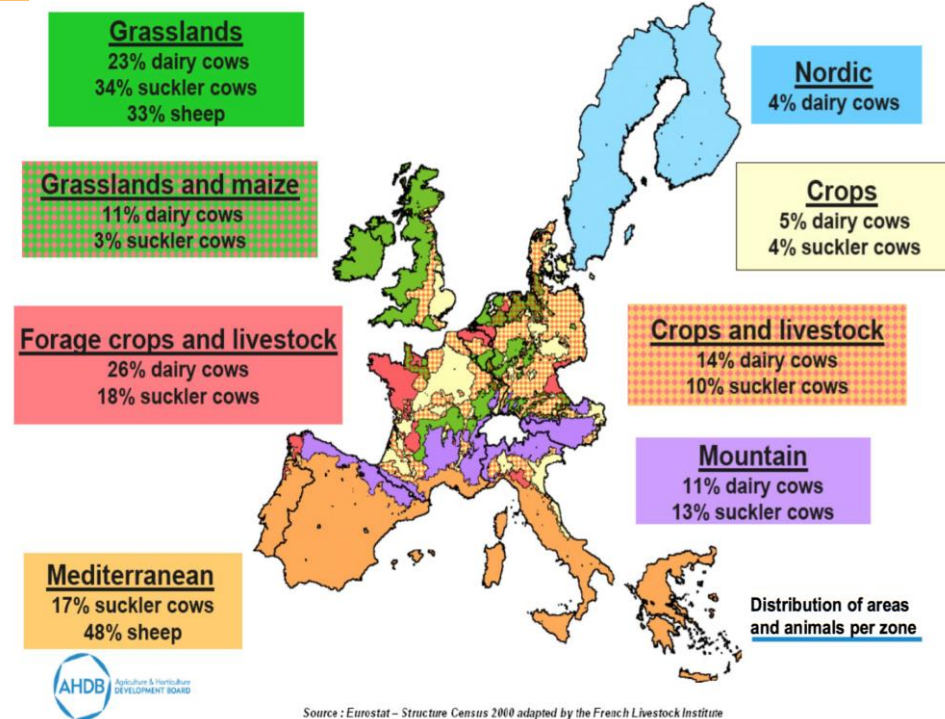
# Stage 6 – Does someone else produce it as well?

## Beef production worldwide



Source: arc2020.eu

## Differentiation of production



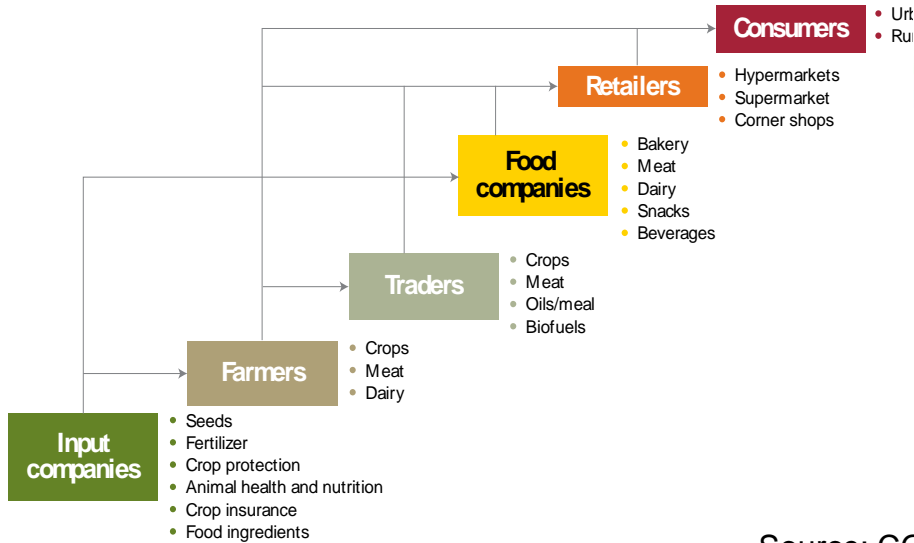
Source: AHDB



# Stage 6 – Value chains

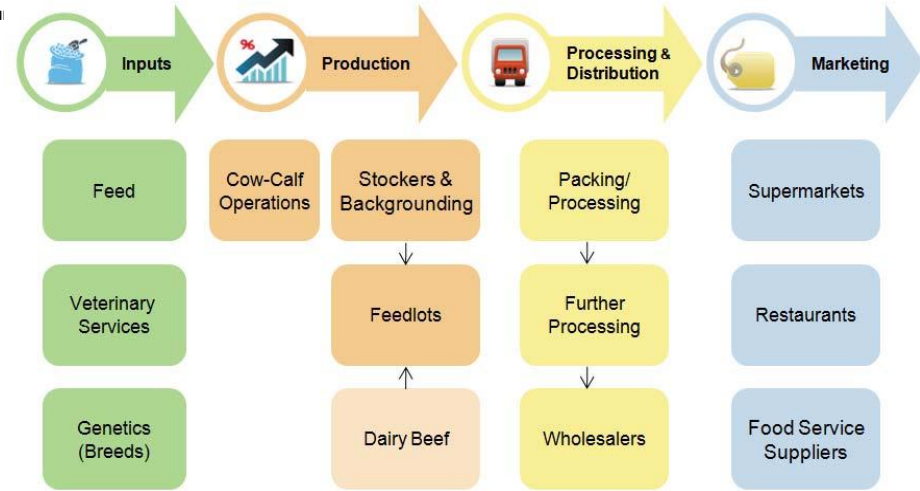
## Generic value chains

Figure 1: The agriculture and food value chain



## Specific value chains

Figure 4. U.S. Beef Industry Value Chain

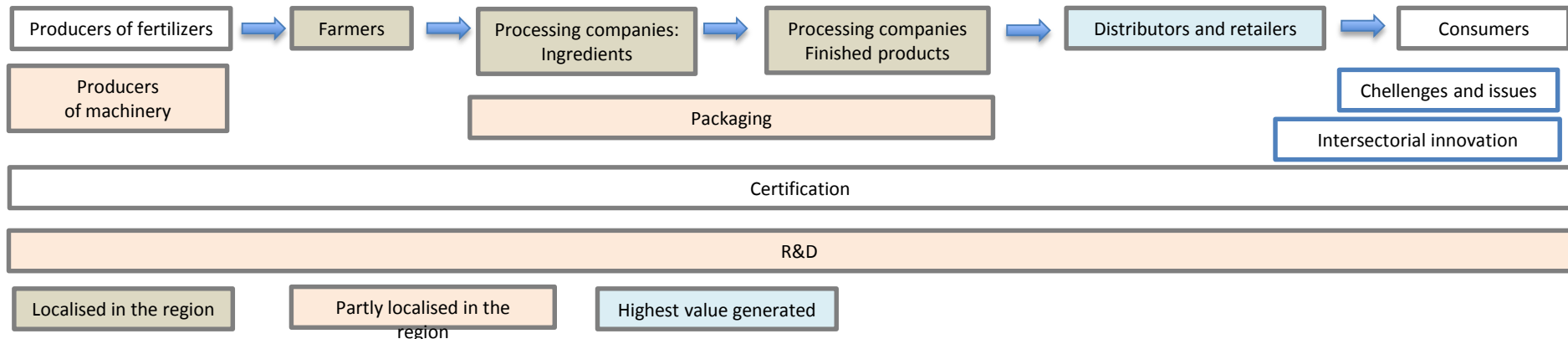


Source: CGGC

and veal production

Source: KPMG

## Regional value chains – effect of entrepreneurial discovery





Thank you

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