

Primary food processing

Cornerstone of plant-based food production and the bio-economy in Europe

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Introduction of LEI Wageningen UR



Landbouw-Economisch Instituut

lei-dlo



1940 Foundation

1969 Landbouw
Economisch Bericht

2001 LEI Wageningen UR

2015 75 years of LEI



LEI

WAGENINGEN UR



LEI
Wageningen
UR Facts

266 researchers
65% male
35% female

Turnover '14
€ 31 mln

40%
Accepted EU R&D
proposals in
societal challenge 2

Yearly around
100 references
in parliament

Result '14
€ 230 k

Yearly
around 500
projects and
around 600
official
publications





Food Security

working on
global challenges
worldwide



Bio-based and circular Economy



Natural resources and living environment



Sustainable Metropolitan food clusters

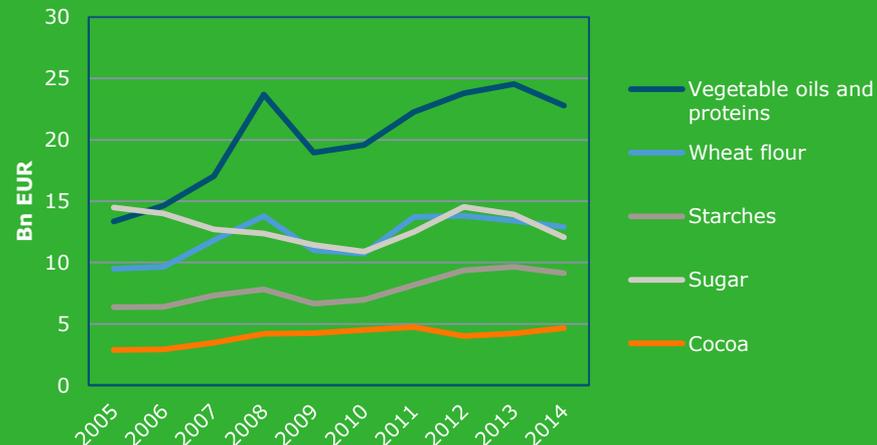
Research questions

- Research commissioned by PFP:
 - What is the contribution of the primary food processing industries to the whole of the food and drink industry, and to the whole of the European economy?
 - What specific role do the primary food processing industries play in the food value chain?
 - What factors will impact the future of the primary food processing industry in the EU?

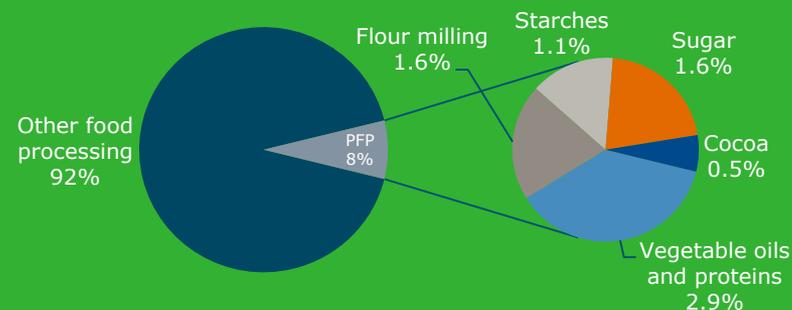
Production value increased despite crisis

- Total production value in the EU is estimated at €66bn in 2013
- Production value increased despite crisis, with exception of sugar
- 8% of production value of EU food processing industry
- Price volatility

Production value of primary food processing, 2005-2014, Source: Eurostat



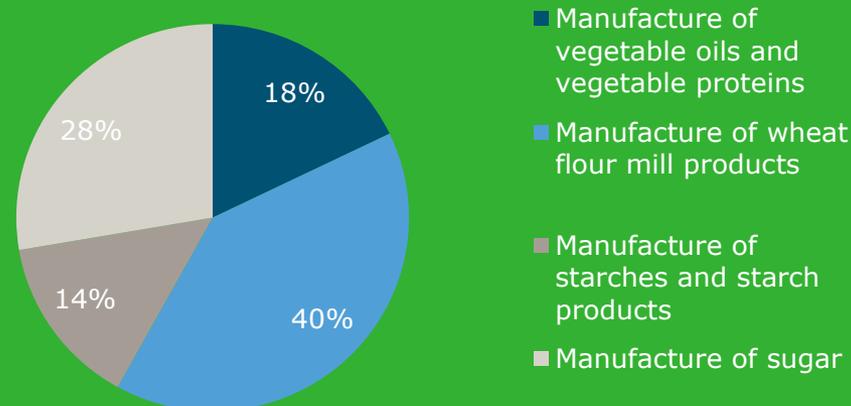
Division of production value of food manufacturing and primary food processing, in 2013, in %, Source: Eurostat PRODCOM and Eurostat SBS.



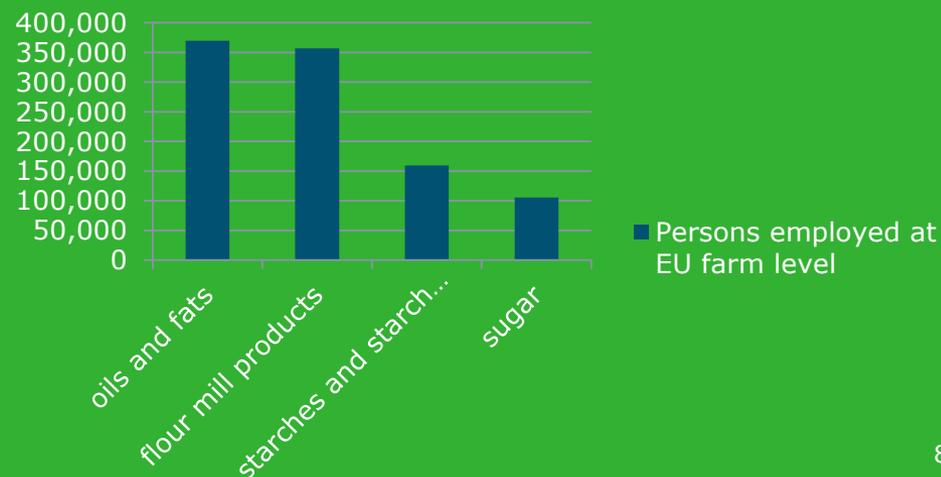
Employment for over one million people

- Over 120,000 people directly employed in around 4,000 companies
- Indirect employment at EU farm level is estimated at almost 1 million
- Figures based on industry data on crop sourcing from EU, Eurostat weighted average EU labour input per hectare of farming type, and FAOSTAT yields
- Excluding other indirect employment and excluding cocoa

Number of persons employed, x 1,000



Persons employed at EU farm level



Investment and R&D

- 17% of investment value of food processing industry
- Higher average investment rate than food processing
- Patents are widely used
- R&D targeting production efficiency, safety and sustainability, and more recently bio-chemicals, bio-refinery and other bio-based processes. Starches, sugars and oils have a huge potential to contribute to a bio-based economy
- Some of PFP companies are top-R&D performers in EU

Opportunities



New markets

- Bio-based demand
- World food demand
- Product innovation



Competitive edge

- Close to market, close to source and close to trade hubs
- Responsiveness of the supply chain



Sustainability

- Process innovation to improve environmental performance, lower costs, and be a preferred supplier



Supply chain

- Consolidation for cost reduction
- Integration for increased transparency and limitation of risks

Threats



Market threats

- Increased global competition
- Threat of un-level playing field



Price risk threats

- Price volatility increases
- Risk management regulation (MiFID 2)



Production threats

- Raw material availability
- CAP reform leads to price risk
- Climate change
- Crop protection
- Spread of GMO cultivation



Regulatory threats

- EU Food Law
- Health and Nutrition regulation
- GMO regulation
- Trade negotiations



Supply chain threats

- Fragmentation because of sustainable certification schemes
- Lack of supply chain transparency

Additional conclusions

- Plant-based primary food processors:
 - are important link in many EU food and bio-based supply chains.
 - have a central position in food, feed, non-food industrial and energy.
 - are major players on the European and world agricultural markets, and have a stake in global agricultural raw material security.
 - 200m tonnes sourced from EU farmers. This makes a competitive primary food processing industry also an important pillar for rural development and farm income in the EU.
- PFP industries have invested in product innovation, making these companies real innovators and R&D performers.

Thank you



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