

The role of packaging in food waste prevention

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#### Introduction to food waste

LOST
WASTED

1. Land and farm
2. Production
3. Distribution
4. Use 5. End of life

WHERE: Developed countries > Use stage > Consumer behaviour

WHY: Lack of planning of grocery shopping, improper conservation, inadequate packaging...

HOW MUCH: Too much, about 30% of food produced!

"The food wasted in developed countries (222 millions of tons) is equal to the food production in Sub-Saharan Africa (230 millions of tons)" [FAO 2013]









#### Food waste in Grana Padano PDO supply chain

Data collected in 18 packaging plants (years 2016/2017)

**1,4%** 



European Commission data (PEFCR for Dairy Products)

0,5%

7%















#### Food waste in Grana Padano PDO supply chain

13,75 litres of raw milk

«Virtual» supply chain without waste

1 kg Grana Padano













15,1 litres of raw milk

Real supply chain with waste

1 kg Grana Padano



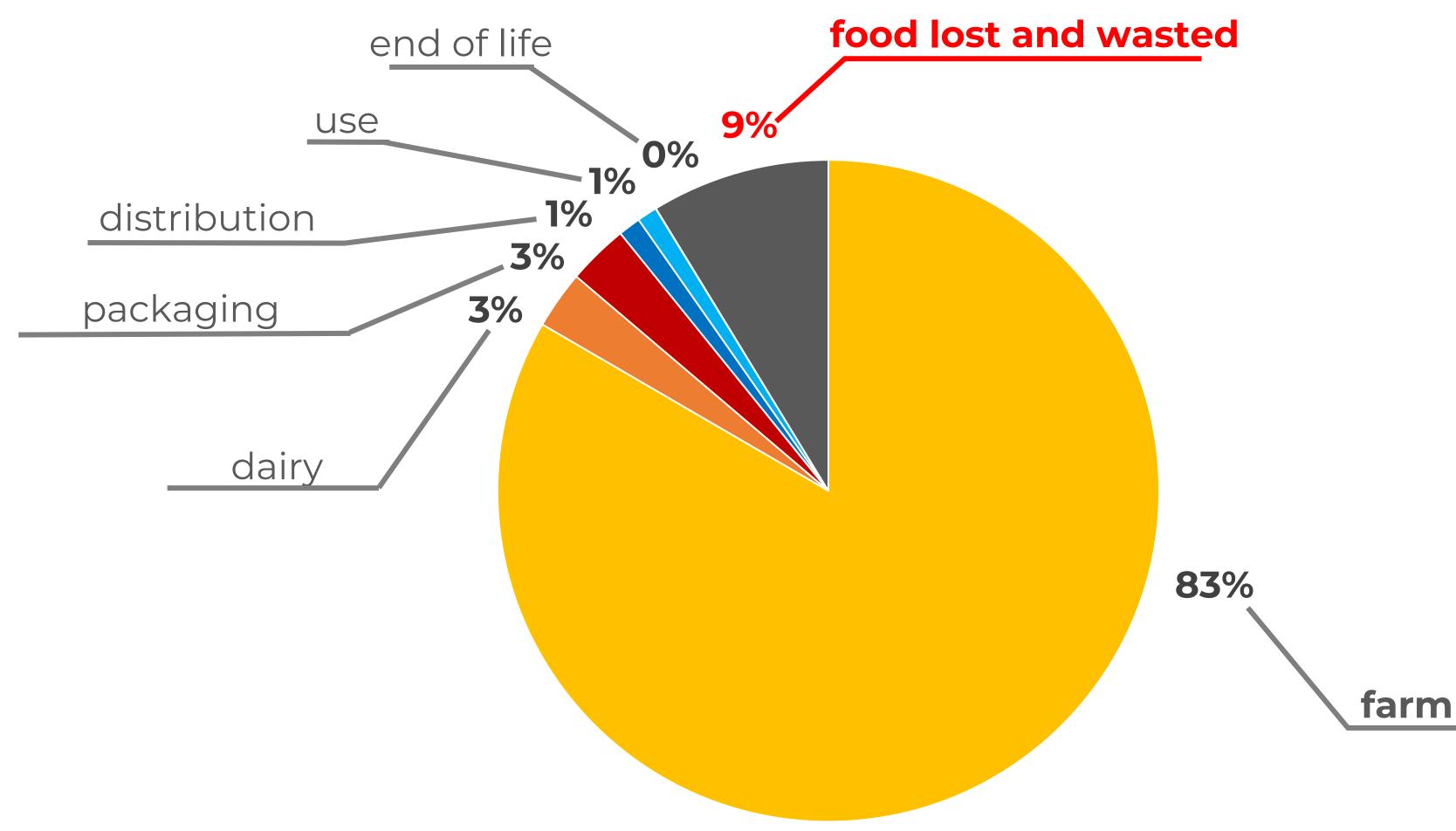






#### Food waste and environmental impacts (PEF)

Environmental impact of life cycle – Single point (method EF 2.0)





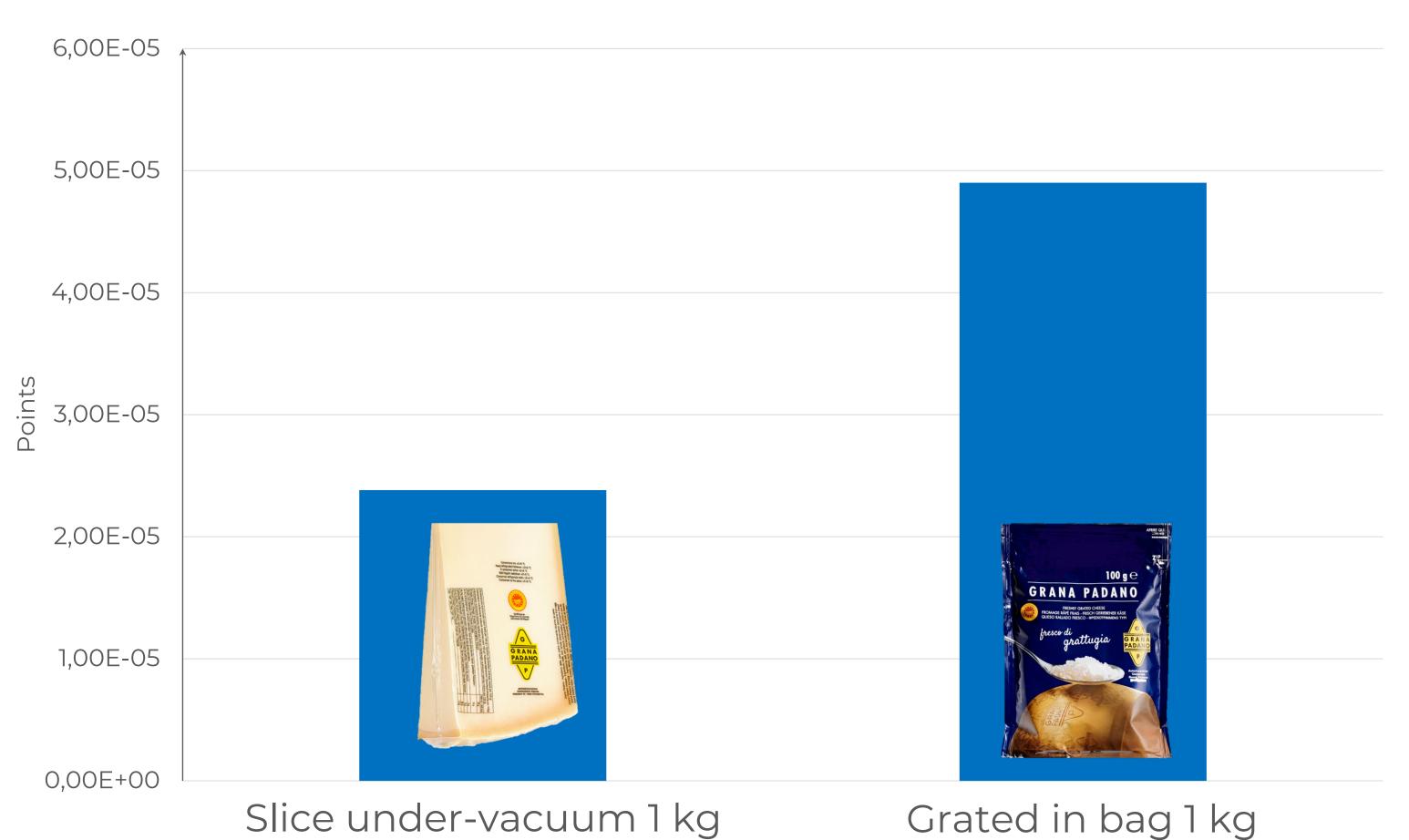


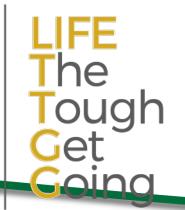




#### Food waste and packaging solutions

Environmental impact of packaging stage – Single point *(method EF 2.0)* 





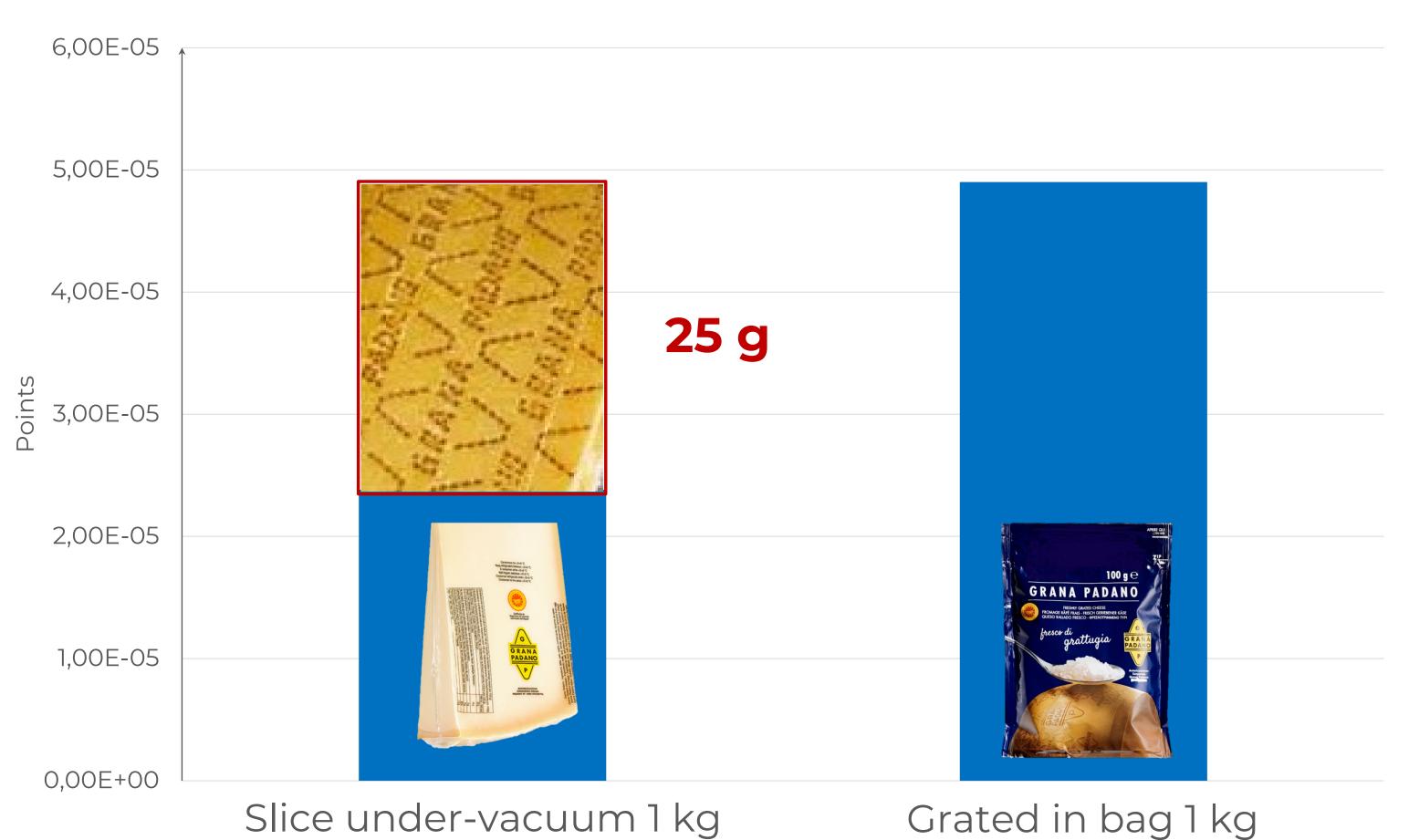


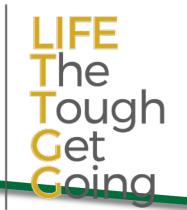




#### Food waste and packaging solutions

Environmental impact of packaging stage – Single point (method EF 2.0)











# When packaging prevents food waste

- ✓ Extend food shelf life;
- ✓ Protect and preserve food;
- ✓ Allow to acquire the desired amount of food;
- ✓ Assist consumer to implement actions to prevent food waste (e.g. «open and close» packaging);
- ✓ Support the right interpretation of expiry date;
- ✓ Inform about correct practices of prevention (e.g. proper storing);
- ✓ Empower consumers about environmental impacts of food waste.





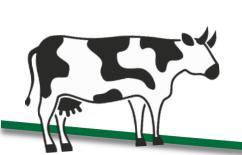




### When packaging generates food waste

- ✓ Induce to acquire food that will not be eaten;
- ✓ Generates conflicts between reality and expectations (e.g. buy something that I don't like);
- ✓ Inadequacy about functional dimension (e.g. possibility to empty the packaging);
- ✓ Inadequacy about consumer information:
  - 85% of packaging surface is dedicated to secondary functions (e.g. marketing appeal);
  - 15% of packaging surface is dedicated to primary information (e.g. expiry date).









## Packaging ethic card

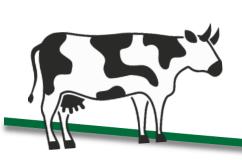
- 1. responsible
- 2. balanced
- 3. safe
- 4. accessible
- 5. transparent

- 6. informative
- 7. contemporary
- 8. forward-looking
- 9. educational
- 10. sustainable



https://fondazionecartaeticapackaging.org/











# Thank you

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www.lifettgg.eu



