



# A SOCIAL LCA CASE STUDY IN THE WINE SECTOR



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# Outline

- S-LCA framework
- Case study of bottle of wine – **It is not completed**
- Discussion

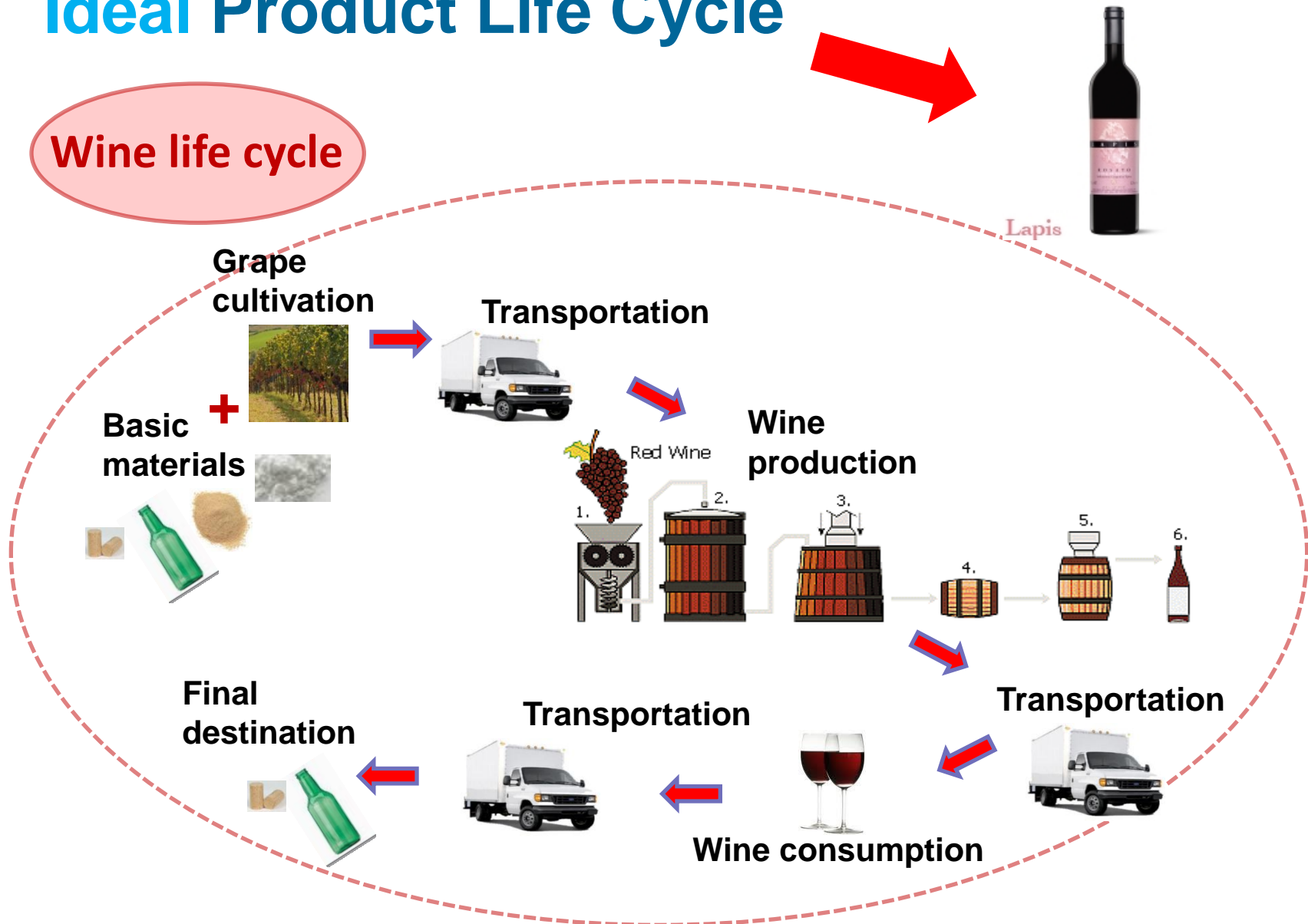
# Framework



- UNEP/SETAC Life Cycle Initiative framework
  - System boundaries: type of process involved
  - Analysis of the stakeholders categories
  - Analysis of the subcategories
  - Identification of inventory indicators for the system under study

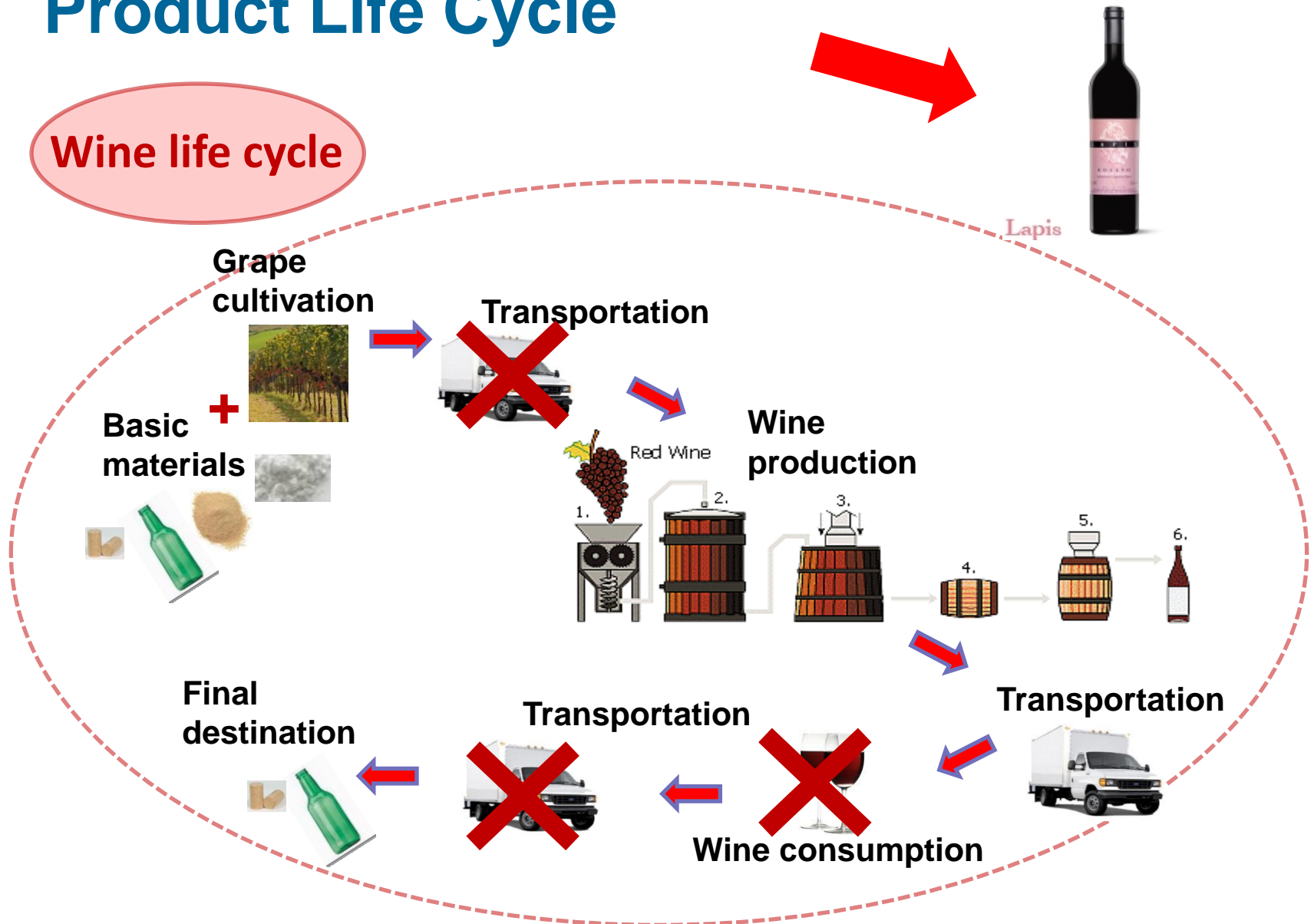
# Ideal Product Life Cycle

## Wine life cycle

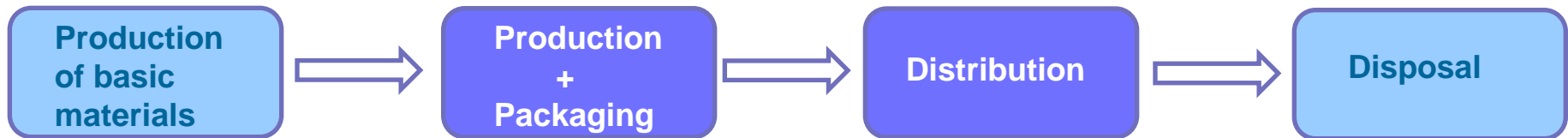


# Product Life Cycle

## Wine life cycle



# Foreground and background processes



Legend:



Foreground



Background

# Stakeholders involved

## Production of basic materials

Material	Company	Country production location
Grapes	Azienda Agricola Sarchese Dora	Italy
Bottle	Stilvetro srl	Italy
Enzymes	Pall Filtrations spa	Italy
Potassium metabisulfite (K <sub>2</sub> S <sub>2</sub> O <sub>5</sub> )	Ever srl	Italy
Clarifying filter	Tecnofood	Italy
Ferment	Pall Filtrations spa	Italy
Activating (nitrogen)	Pall Filtrations spa	Italy
Thiamine	Pall Filtrations spa	Italy
Ammonium sulphate	Pall Filtrations spa	Italy
Ammonium phosphate	Pall Filtrations spa	Italy
Bentonite	Pall Filtrations Corporation	Italy
Inert gas bottling	COA	Italy

# Stakeholders involved

## Production and Packaging

Material	Company	Country production location
Bottle of wine	Dora Sarchese	Italy

## Distribution





Material	Company	Country location
Bottle of wine		Italy

## Disposal

Material	Company	Country location
Bottle and cap	City waste management	Italy

# Stakeholders involved

The stakeholder categories considered on each life cycle stage

Life Cycle stages ----- Stakeholder category	Cultivation  + basic materials	Production and 	Distribution 	Disposal 
Workers/employees	✓	✓	✓	✓
Local community	✓	✓	✓	✓
Society	✓	✓	✓	✓
Consumers	-	✓	-	-
Value chain actors	-	✓	✓	-

# Identify relevant subcategories for the case study

Stakeholder categories	Subcategories	Inv. indicators	Inventory data
Workers	■		
Local community	■		
Society	■		
Consumers	■		
Value chain actors	■		
	■		



# Skip subcategories

- Child labour → worker category
- Forced labour → worker category
- Cultural heritage → local community
- Respect of indigenous rights → local community
- End of life Responsibility → society

**26 subcategories will be consider**

# Defining Inventory indicators

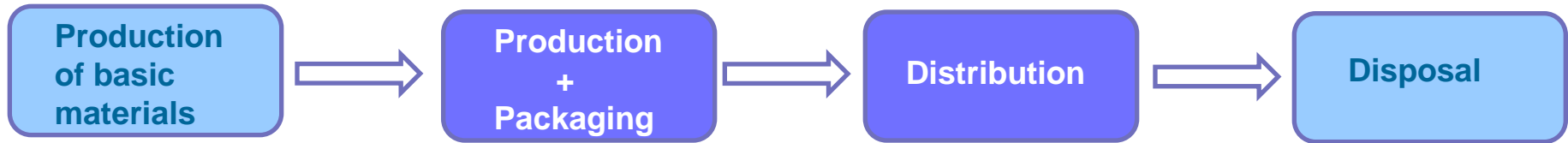
Stakeholder categories	Subcategories	Inv. indicators	Inventory data
Workers	■		
Local community	■		
Society	■		
Consumers	■		
Value chain actors	■		
	■		



# Local community

Subcategory	Inventory indicator
access to material resources	Extraction of material resources and level of industrial water use
	Percentage of population with access to improved sanitation facilities
	Existence of projects to improve community infrastructure country/ sector
	Description of potential material resources conflicts
access to immaterial resources	Freedom of expression in country/sector
	Annual arrests connected to protest of sector actions
	Presence of community education initiatives and community service programmes
delocalization and migration	Migration rate of the country
	Number of individuals who resettle that can be attributed to the sector
secure living conditions	Crime rate (State of Security and Human Rights in Country of Operation)
	Management policies related to private security personnel
community engagement	Description of community engagement of the sector
	Presence of policies regarding community engagement at company level
local employment	Percentage of unemployment in the country
	Percentage of work force hired locally
	Percentage of spending on locally-based suppliers
safe and healthy living conditions	Presence/Strength of Laws on Construction Safety Regulations by Country
	Burden of disease in the country
	Pollution level of the country and contribution of the sector to the environmental load
	Management effort to improve the environmental performance

# Gathering Data



**Specific data: company data**  
**General data: statistic data**

**Generic data:**  
**statistic data**

# Company data

## Difficulty

- to track down information about ethics and certification of wine company, since the sector is characterized by small businesses or even family

# Generic data

- ILO conventions [www.laborrights.org](http://www.laborrights.org)
- <http://data.worldbank.org>
- Gender index
- [www.cia.gov](http://www.cia.gov)
- Global Peace indicator
- Corruption Perception Index
- Italian National Consumer Union
- <http://www.iltuosalarario.it>



# Discussion

- How identify the relation between the stakeholder categories and impact categories?
- Are the inventory indicators suitable for the assessment?
- Wich model of impact assessment is more suitable?

# Thank you!

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