Thinking about livestock farming in terms of European autonomy

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1. Introduction: Why Autonomy Matters

Value of livestock production (EU-27) €207 billion

40% of the total agricultural activity (2022)

Global demand for livestock-derived food products to increase by 60% to 70% (2050)

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1. Introduction: Why Autonomy Matters

Sustainable livestock-based food systems contributes to:

- food security,
- economic and environmental stewardship
- sociocultural needs
- vital for achieving most of the United Nation's Sustainable Development Goals.

Development of sustainable European livestock production systems face challenges:

- impact on the environment & intensive use of resources
- ethical issues
- perceived human health considerations

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1. Introduction: Why Autonomy Matters

- Costs and benefits are externalised
- Monetisation of the externalities, the “true” costs of animal-based products in Europe
- EU vulnerability to fertilizers, energy, and material imports (e.g., war in Ukraine, global trade/supply chain disruptions)
- Livestock can be a multifunctional contributor beyond food production.

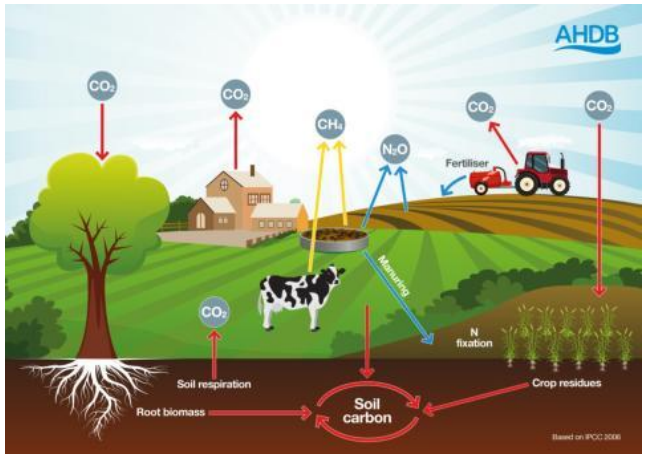
Decarbonising and Net Zero – 2050 across all sectors

Energy and Transportation sectors are decarbonising

Removing Thermogenic Carbon (fossil fuels)

Nature exemplifies Net Zero

Carbon emissions equal carbon removal (sinks)



Agriculture Targeting Net Zero

Removal of Thermogenic sources and balancing Biogenic emissions

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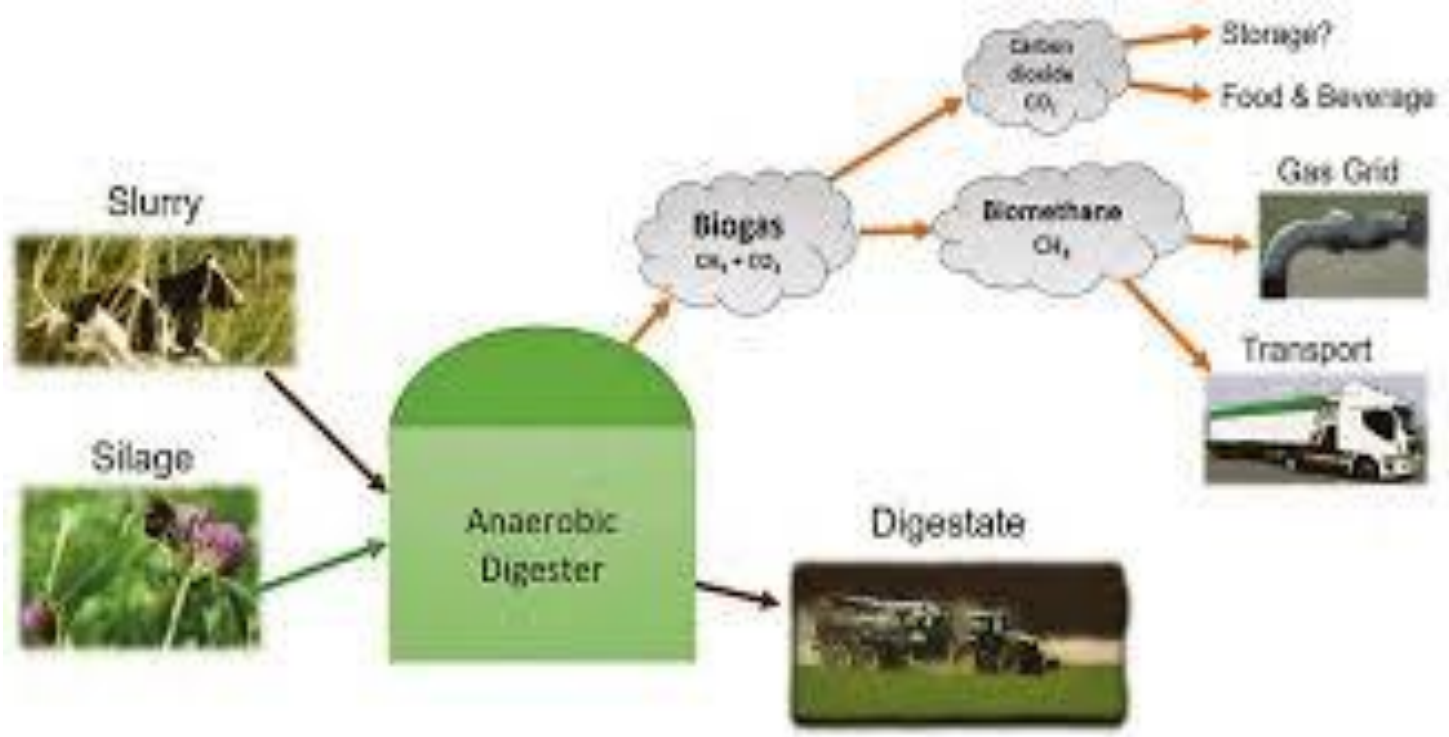
2. Livestock & Renewable Energy



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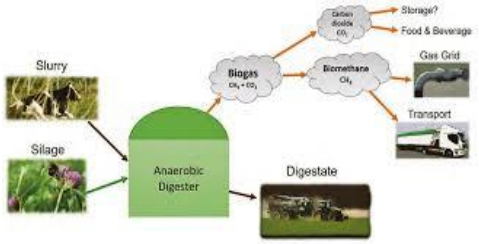

- **Manure-to-biogas**: Anaerobic digestion (AD) produces methane, which can replace fossil fuels.
- **Energy output potential**: Farms can generate electricity or fuel from livestock waste – potential integration into national grid
  - AD is the most developed route for the utilisation of **carbon from animal manure to biofuel**
  - AD is an important tool to **reduce** the carbon foot-print of agriculture
  - **AD can degrade most antibiotics**
- Other forms of sustainable energy generation can also be integrated with livestock farming i.e. solar farms

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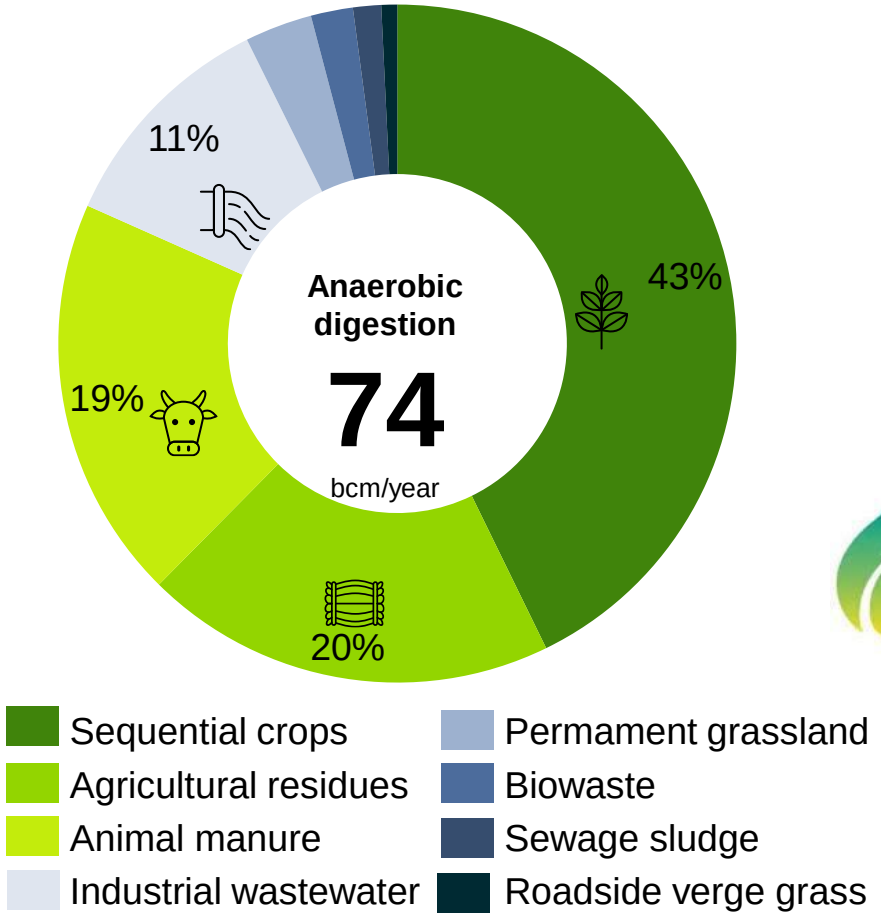
2040: Anaerobic digestion feedstock mix: dominated by sequential crops, agricultural residues and manure

- **2040 AD potential in Europe**:
  - 74 bcm/yr in Europe
- **Main feedstocks:**
  - Sequential cropping
  - Agri residues
  - Manure
  - Industrial wastewater
- **Top 5 countries:**
  - Germany
  - France
  - Spain
  - Italy
  - Poland



EBA European Biogas Association

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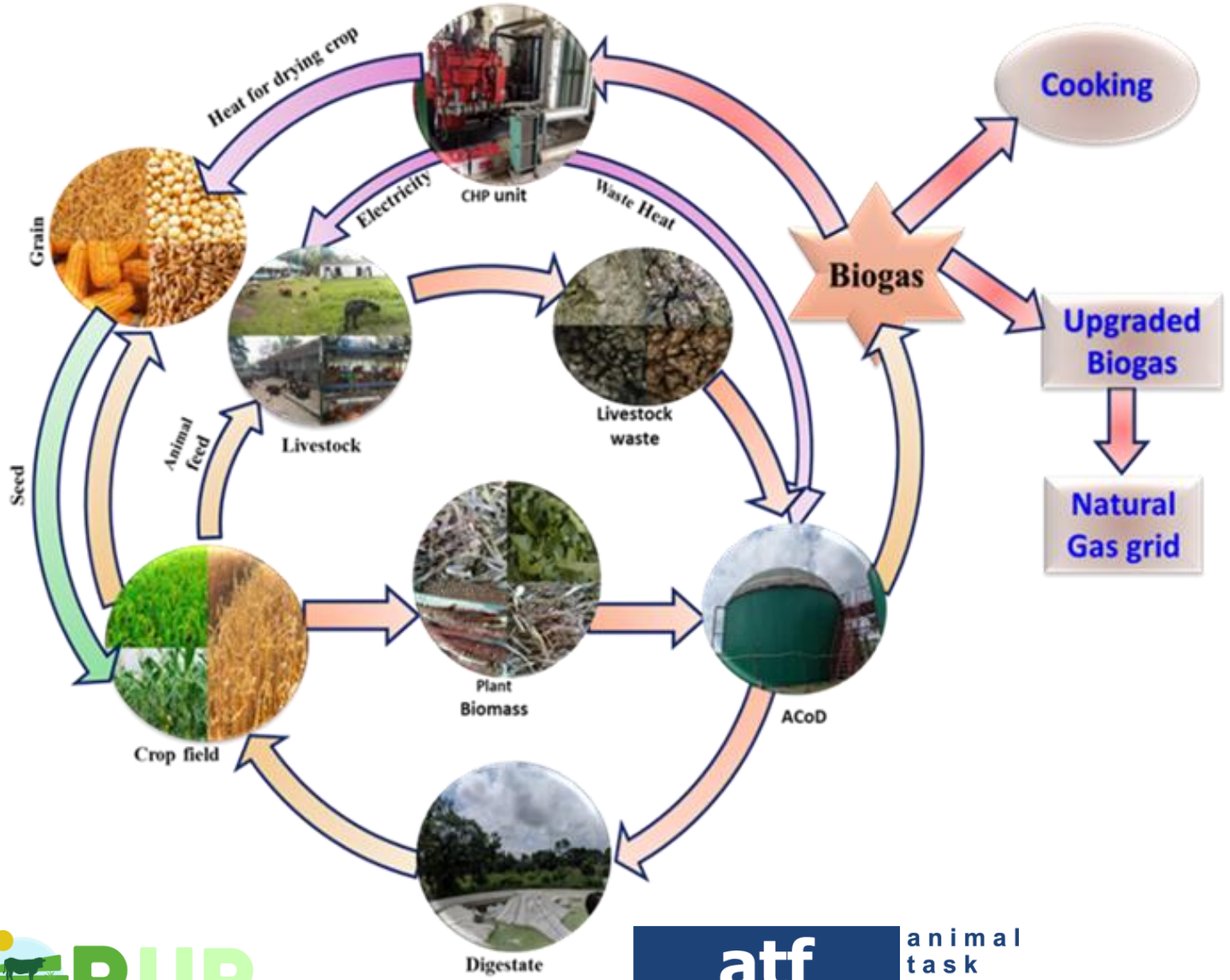
3. Livestock & Fertiliser Autonomy



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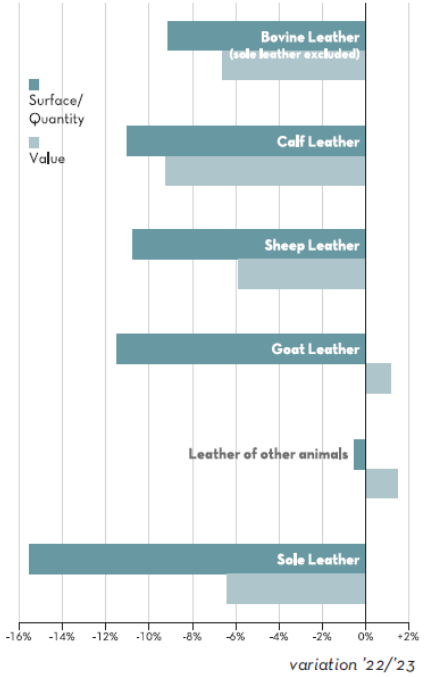
4. Livestock & Biomaterials for Bioeconomy

ECONOMIC PERFORMANCE ITALIAN TANNING INDUSTRY — YEAR **2023**

PRODUCTION BY ANIMAL TYPOLOGY

3

	2023 Volume (000 000 sqm)	2023 Value (million euros)
Bovine Leather	75.8	3,106.2
Calf Leather	7.3	436.3
Sheep Leather	9.3	301.8
Goat Leather	6.6	216.9
Leather of other animals	0.5	101.4
SUBTOTAL	**99.5**	**4,162.5**
Sole leather (tons)	7,205	102.4
TOTAL		**4,264.9**



UNIC — ITALIAN TANNERIES

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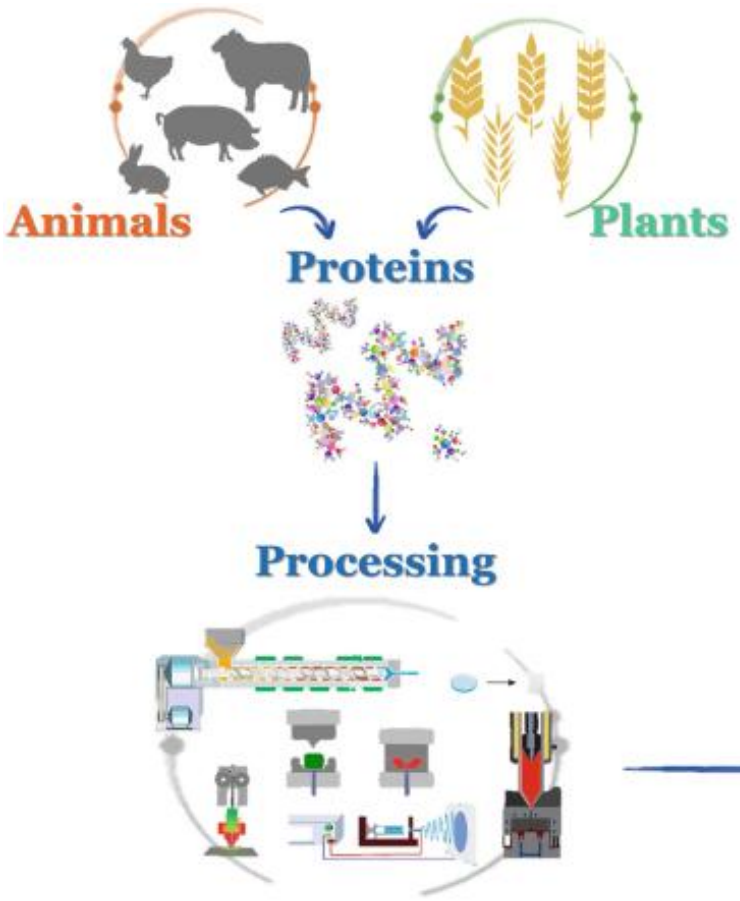
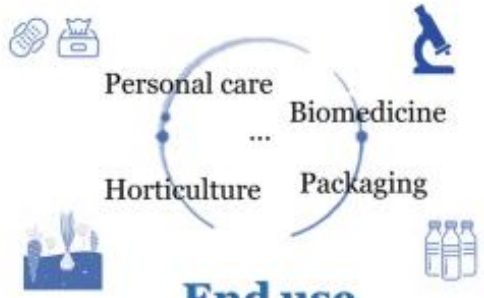
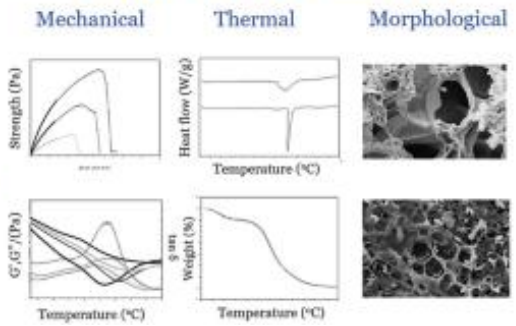
4. Livestock & Biomaterials for Bioeconomy







50% of households own a pet

25% of households own at least one dog

27% of households own at least one cat

29.2	ANNUAL SALES OF PET FOOD PRODUCTS (€bn)
9.9	ANNUAL VOLUME OF PET FOOD PRODUCTS (Millions Tonnes)
2%	ANNUAL GROWTH IN VOLUME (Max)
9%	ANNUAL GROWTH OF INDUSTRY
24.6	RELATED SERVICES AND PRODUCTS (Accessories and Services) €bn
9%	GROWTH IN SERVICES AND PRODUCTS

375	NUMBER OF PET FOOD COMPANIES
480	ESTIMATED NUMBER OF PLANTS
283,000	DIRECT EMPLOYMENT
2,300,000	INDIRECT EMPLOYMENT

Data sourced via FEDIAF's National Association members and aligned by Soulor Consulting.
For more information on our methodology, please read the Appendix.

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4. Livestock & Biomaterials for Bioeconomy

- Livestock by-products used in a wide range of products of economic and societal importance
- Bone and fat used in biomaterials, construction, bioplastics
- Clothing - wool, leather
- Category 3 animal by-products - animal fats and proteins not intended for human consumption are vital pet food ingredients. Europe produces 9.9 million tonnes of pet food per year worth €29.2 billion.
- Direct competition now for such materials as feedstocks for other sectors i.e. biofuels and biolubricants

5. Conclusion & Policy Opportunities

Reframe livestock farming not just as food production — but **as infrastructure for resilience**
Livestock are more than food!

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5. Conclusion & Policy Opportunities

- Livestock can be a **strategic asset** for European self-reliance.
- EU needs **holistic** livestock policy aligning food, energy, and industrial goals.
- Maintaining **social fabric** in rural areas - Livestock farms employ ~4m people in the EU
- European industries linked to animal production (milk and meat processing, feed for livestock) have an annual turnover of approximately €400 billion
- Extensive pasture-based systems have a proven significant potential in terms of **carbon sequestration**.
- Livestock are a potential source of **renewable energy** and organic fertilisation
- Livestock, especially grazing ruminants, can have a positive impact on **biodiversity**, by providing wildlife habitats for species of flora and fauna that are specific to grassland ecosystems - maintaining landscapes, **prevention of forest fires**, limiting the impact of floods and prevents soil erosion

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Thank You!






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