



EU beef market

current situation and future perspectives

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Outline

1. Current situation of EU beef market
2. Beef consumption: evolution and future perspectives
3. The role of livestock in the EU: main challenges and positive externalities
4. Policies for sustainable and competitive livestock production
5. Conclusions

Current situation of EU beef market

Decreasing herd

Decreasing production

Dec	TOTAL LIVESTOCK				%Var 2022 2021	BOVINE < 1 Year				%Var 2022 2021	BOVINE 1-2 Year				%Var 2022 2021	BOVINE > 2 Year				%Var 2022 2021
	2019	2020	2021	2022		2019	2020	2021	2022		2019	2020	2021	2022		2019	2020	2021	2022	
BE	2 373	2 335	2 310	2 286	-1.1%	722	712	713	694	-2.7%	464	461	454	454	-0.0%	1 188	1 163	1 143	1 138	-0.5%
BG	527	589	611	580	-5.1%	100	112	121	108	-11.0%	58	71	67	70	+3.8%	369	406	423	402	-4.8%
CZ	1 367	1 340	1 359	1 390	+2.3%	411	405	408	407	-0.4%	299	295	296	314	+6.1%	657	640	655	669	+2.2%
DK	1 500	1 500	1 480	1 466	-0.9%	522	524	516	510	-1.2%	280	279	280	281	+0.4%	698	697	684	675	-1.3%
DE	11 640	11 302	11 040	10 997	-0.4%	3 485	3 405	3 355	3 308	-1.4%	2 751	2 639	2 569	2 600	+1.2%	5 403	5 258	5 116	5 089	-0.5%
EE	254	253	251	250	-0.5%	71	72	69	69	+0.4%	50	49	51	49	-3.7%	133	132	131	132	+0.3%
IE	6 560	6 529	6 649	6 552	-1.5%	1 962	2 057	2 108	1 995	-5.3%	1 741	1 708	1 775	1 810	+2.0%	2 856	2 765	2 766	2 746	-0.7%
EL	530	632	614	582	-5.3%	157	162	176	156	-11.5%	91	145	114	107	-6.2%	283	325	324	319	-1.6%
ES	6 600	6 636	6 576	6 455	-1.8%	2 529	2 541	2 319	2 489	+7.3%	857	853	1 016	785	-22.8%	3 214	3 242	3 240	3 181	-1.8%
FR	18 173	17 816	17 330	16 986	-2.0%	5 125	5 119	4 945	4 868	-1.6%	3 183	3 063	3 021	2 992	-1.0%	9 865	9 634	9 364	9 127	-2.5%
HR	420	423	428	422	-1.4%	151	146	156	149	-4.5%	107	111	107	112	+4.7%	162	166	165	161	-2.4%
IT	6 377	6 400	6 280	6 049	-3.7%	1 759	1 774	1 722	1 563	-9.2%	1 588	1 595	1 562	1 520	-2.7%	3 030	3 031	2 997	2 966	-1.0%
CY	74	83	85	81	-3.7%	25	27	27	25	-7.4%	12	14	15	15	-2.8%	38	42	43	42	-1.8%
LV	395	399	393	391	-0.5%	108	112	107	107	+0.4%	65	65	68	66	-3.3%	222	222	219	219	-0.1%
LT	635	630	629	642	+2.1%	167	169	166	173	+4.4%	132	129	135	130	-3.6%	336	332	328	339	+3.3%
LU	192	191	187	186	-0.6%	50	50	49	48	-2.1%	41	41	40	41	+0.1%	101	100	98	98	-0.1%
HU	909	933	910	894	-1.7%	258	266	269	258	-4.2%	193	195	153	159	+3.6%	458	472	487	477	-2.1%
MT	14	14	14	14	+1.3%	4	4	4	4	+1.6%	3	3	3	3	-3.3%	7	7	7	7	+3.3%
NL	3 721	3 691	3 705	3 751	+1.2%	1 528	1 510	1 519	1 536	+1.1%	440	465	482	496	+2.9%	1 752	1 716	1 704	1 719	+0.9%
AT	1 880	1 855	1 870	1 861	-0.5%	605	599	611	597	-2.3%	426	414	421	430	+2.1%	848	842	838	834	-0.5%
PL	6 262	6 279	6 379	6 448	+1.1%	1 748	1 735	1 802	1 929	+7.0%	1 757	1 800	1 915	1 699	-11.3%	2 758	2 744	2 662	2 821	+6.0%
PT	1 675	1 691	1 641	1 579	-3.7%	531	526	528	516	-2.2%	240	257	214	201	-6.2%	903	909	899	862	-4.0%
RO	1 923	1 875	1 827	1 834	+0.4%	400	369	347	347	-0.1%	223	225	222	228	+2.8%	1 300	1 281	1 258	1 259	+0.1%
SI	483	486	483	465	-3.7%	151	153	157	149	-4.8%	136	133	131	130	-0.6%	197	199	195	186	-4.8%
SK	432	442	434	433	-0.2%	122	126	125	124	-0.1%	83	87	82	83	+1.7%	227	229	228	225	-0.9%
FI	841	835	830	822	-1.0%	287	292	287	283	-1.3%	205	199	205	203	-1.1%	349	344	338	336	-0.6%
SE	1 405	1 391	1 390	1 391	+0.0%	453	464	460	461	+0.2%	339	323	334	333	-0.4%	613	603	596	597	+0.2%
EU	77 161	76 551	75 705	74 808	-1.2%	23 431	23 428	23 065	22 872	-0.8%	15 764	15 621	15 732	15 308	-2.7%	37 966	37 503	36 908	36 627	-0.8%

TONNES	Jan-Jun 23/22	
	EU	
Bull	-3.8%	
Bullock	-2.4%	
Cow	-3.9%	
Heifer	-6.0%	
Calve	-6.4%	
Young cattle	-6.4%	
Meat of bovine animals	-4.5%	

Estimates for last month of period :

Source : EStat Newcronos

EU %Var is calculated considering only countries available in 2021 AND 2022

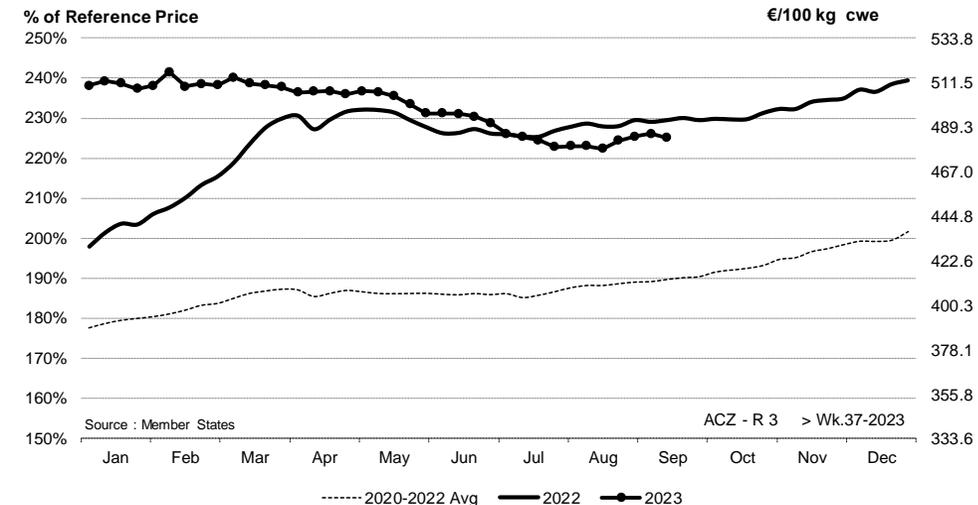
PRICES CARCASSES

EVOLUTION A/C/Z.R3

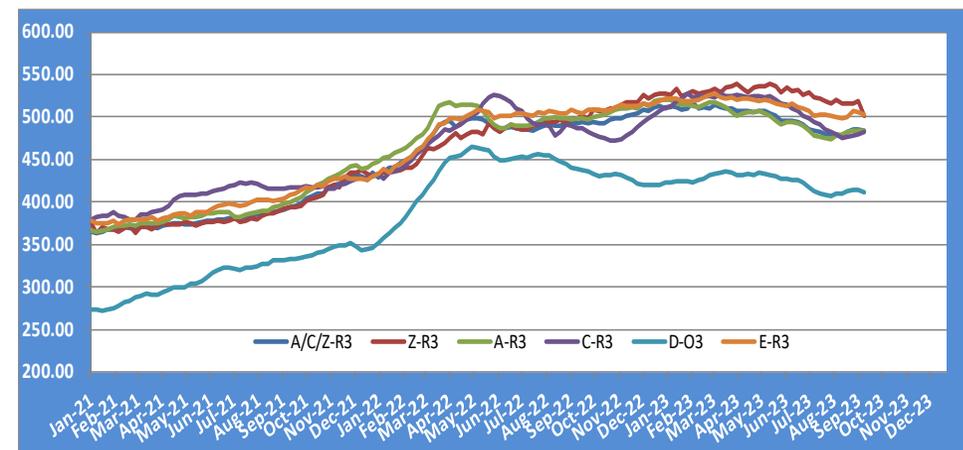
EU Prices week		37	Evolution since last week	Evolution since last month	Evolution since last year
Carcasse	Average A/C/Z-R3	483.9	- 0.4%	+ 1.1%	- 1.8%
	Young Bovines (Z)	490.4	- 1.4%	- 1.3%	+ 0.1%
	Young Bulls (A)	481.8	- 0.3%	+ 1.8%	- 2.4%
	Steers (C)	486.8	+ 0.4%	+ 1.1%	- 1.0%
	Cows (D)	411.0	- 0.9%	+ 0.3%	- 6.5%
	Heifers (E)	503.4	- 0.4%	+ 0.9%	- 0.5%
	Calves slaughtered <8M	593.5	+ 0.2%	- 9.0%	- 1.5%
Live Animals	Male Calves Dairy Type	118.5	- 0.6%	- 6.8%	+ 9.9%
	Male Calves Beef Type	250.0	- 1.0%	- 3.0%	+ 6.8%
	Young Store Cattle	3.24	+ 0.9%	+ 3.1%	+ 4.6%
	Yearling Male Store Cattle	3.62	+ 3.3%	+ 0.7%	+ 4.2%
	Yearling Female Store Cattle	2.82	+ 0.2%	- 1.9%	+ 0.1%

Sources : MSs notifications (Regulation (EU) 1182/2017 and 1184/2017)

ACZ - R 3 > Wk.37-2023



EU EVOLUTION ALL CAT GLOBAL VIEW



TRADE

EU EXPORTS

Beef & Live Animals

EU Exports of Beef and Live Animals (excluding fats): Trade figures (COMEXT – tonnes cwe)

In Tons of Carcase Weight

Destinations	2021		2022		Jan to Jun 2023		Compared to Jan to Jun 2022
	Tons	% Extra EU	Tons	% Extra EU	Tons	% Extra EU	
United Kingdom	344,633	33.4%	360,535	38.5%	177,398	38.5%	+0.9%
Turkey	14,953	1.5%	13,452	1.4%	42,850	9.3%	+++
Israel	66,022	6.4%	63,598	6.8%	27,913	6.1%	-9.7%
Bosnia-Herz.	40,504	3.9%	38,801	4.1%	19,960	4.3%	+14.9%
Ghana	47,618	4.6%	31,762	3.4%	16,936	3.7%	-13.6%
Ivory Coast	29,187	2.8%	29,879	3.2%	14,169	3.1%	-7.5%
Morocco	11,868	1.2%	8,273	0.9%	11,959	2.6%	+++
Hong Kong	44,769	4.3%	10,494	1.1%	10,936	2.4%	+81.1%
Switzerland	28,717	2.8%	25,000	2.7%	9,840	2.1%	-26.8%
Kosovo	16,478	1.6%	17,086	1.8%	8,816	1.9%	+24.8%
Lebanon	19,527	1.9%	21,042	2.2%	8,634	1.9%	-32.2%
Other Destinations	366,696	35.6%	317,131	33.8%	111,610	24.2%	-32.5%
Extra-EU	1,030,974		937,052		461,021		-1.8%
% Change				-9.1%			

In Thousand Euros

	2021		2022		Jan to Jun 2023		Compared to Jan to Jun 2022
	1 000 EUR	% Extra EU	1 000 EUR	% Extra EU	1 000 EUR	% Extra EU	
United Kingdom	1,495,334	38.4%	1,788,823	41.7%	917,082	40.5%	+6.6%
Turkey	86,382	2.2%	96,786	2.3%	294,694	13.0%	+++
Israel	328,295	8.4%	377,934	8.8%	176,174	7.8%	+1.2%
Bosnia-Herz.	126,443	3.3%	161,208	3.8%	87,323	3.9%	+23.1%
Ghana	47,987	1.2%	35,528	0.8%	17,115	0.8%	-21.3%
Ivory Coast	25,645	0.7%	25,506	0.6%	12,101	0.5%	-4.9%
Morocco	60,639	1.6%	48,107	1.1%	71,722	3.2%	+++
Hong Kong	118,737	3.1%	33,178	0.8%	19,357	0.9%	+6.2%
Switzerland	171,272	4.4%	188,978	4.4%	75,436	3.3%	-22.9%
Kosovo	43,776	1.1%	60,917	1.4%	35,893	1.6%	+54.4%
Lebanon	80,664	2.1%	110,119	2.6%	46,536	2.1%	-29.0%
Other Destinations	1,304,359	33.5%	1,364,716	31.8%	513,618	22.7%	-25.0%
Extra-EU	3,889,533		4,291,801		2,267,049		+9.7%
% Change				+10.3%			

TRADE

EU IMPORTS

Beef & Live Animals

EU Imports of Beef and Live Animals (Excl Fats): Trade Figures (COMEXT – tonnes cwe)

In Tons of Carcase Weight

Origins	2021		2022		Jan to Jun 2023		Compared to Jan to Jun 2022
	Tons	% Extra EU	Tons	% Extra EU	Tons	% Extra EU	
	United Kingdom	87,599	28.3%	142,454	37.0%	54,037	
Brazil	81,737	26.4%	86,551	22.5%	47,731	26.9%	+6.2%
Argentina	52,300	16.9%	62,605	16.3%	30,844	17.4%	+11.3%
Uruguay	42,669	13.8%	37,669	9.8%	19,858	11.2%	-2.9%
USA	14,910	4.8%	17,269	4.5%	8,993	5.1%	+10.3%
Australia	8,925	2.9%	8,385	2.2%	3,279	1.8%	-16.3%
Namibia	1,996	0.6%	5,168	1.3%	3,098	1.7%	+82.8%
Paraguay	3,933	1.3%	5,404	1.4%	2,735	1.5%	+8.2%
New Zealand	4,380	1.4%	5,527	1.4%	2,395	1.4%	-7.9%
Switzerland	4,714	1.5%	4,729	1.2%	1,616	0.9%	-14.3%
Canada	1,816	0.6%	2,176	0.6%	814	0.5%	-11.9%
Other Destinations	4,290	1.4%	7,171	1.9%	1,862	1.1%	-52.1%
Extra-EU	309,270		385,107		177,261		-3.1%
% Change			+24.5%				

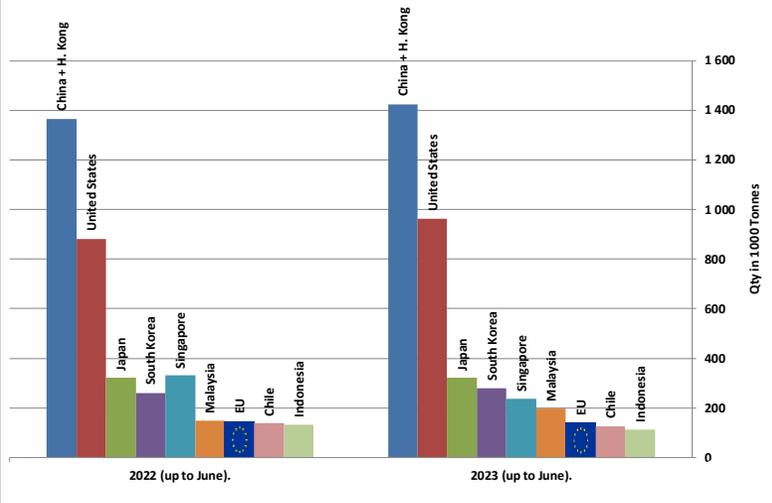
In Thousand Euros

	2021		2022		Jan to Jun 2023		Compared to Jan to Jun 2022
	1 000 EUR	% Extra EU	1 000 EUR	% Extra EU	1 000 EUR	% Extra EU	
	United Kingdom	360,517	20.2%	569,534	22.4%	257,358	
Brazil	387,194	21.7%	542,614	21.4%	272,862	22.9%	+5.7%
Argentina	376,658	21.1%	550,718	21.7%	247,936	20.8%	-1.5%
Uruguay	246,910	13.8%	321,519	12.7%	149,693	12.6%	-6.4%
USA	156,708	8.8%	214,772	8.5%	115,517	9.7%	+18.1%
Australia	90,481	5.1%	101,737	4.0%	40,841	3.4%	-9.1%
Namibia	6,902	0.4%	24,570	1.0%	12,579	1.1%	+75.1%
Paraguay	20,419	1.1%	35,579	1.4%	15,484	1.3%	-5.3%
New Zealand	31,669	1.8%	50,317	2.0%	25,148	2.1%	+19.1%
Switzerland	53,477	3.0%	55,346	2.2%	18,010	1.5%	-19.9%
Canada	18,559	1.0%	21,873	0.9%	10,641	0.9%	+15.3%
Other Destinations	37,331	2.1%	52,847	2.1%	23,281	2.0%	-5.2%
Extra-EU	1,786,825		2,541,424		1,189,349		+0.2%
% Change			+42.2%				

WORLD BEEF MARKET

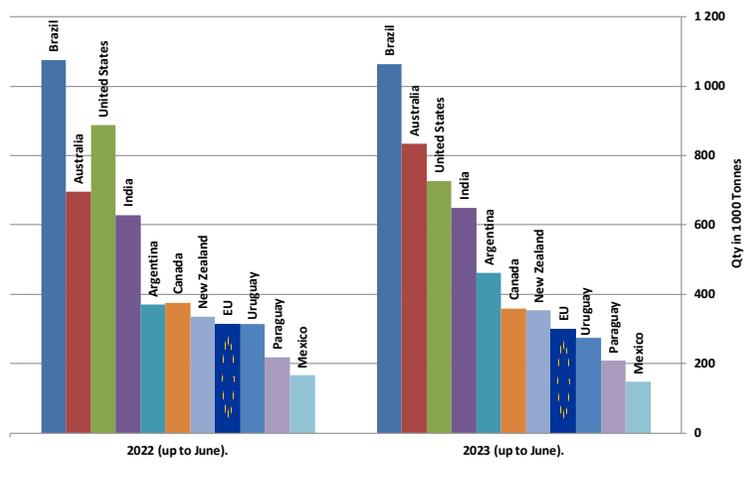
Main Importers of BEEF Products (up to June).

Source : GTA * Excluding live animals (0102), fats, preparations of several types of meat (0209, 0210 99 and 1602 90)

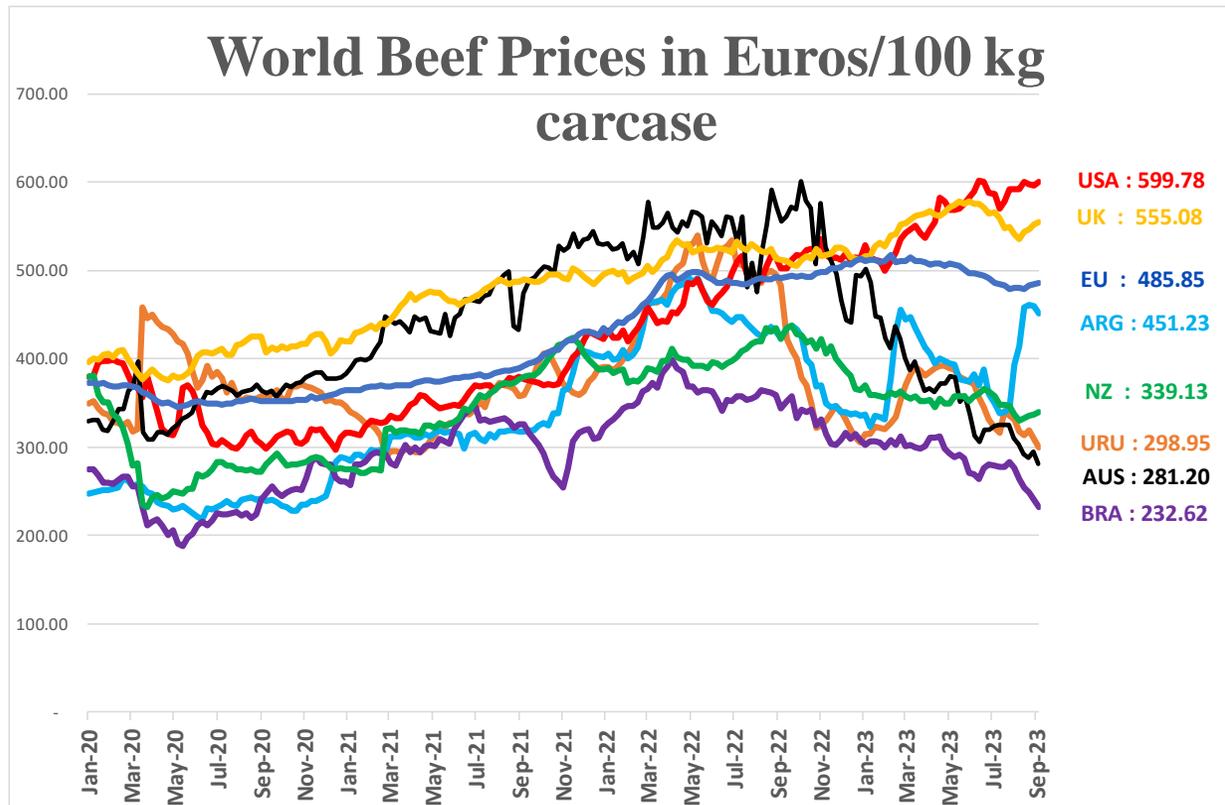


Main Exporters of BEEF Products (up to June).

Source : GTA * Excluding live animals (0102), fats, preparations of several types of meat (0209, 0210 99 and 1602 90)

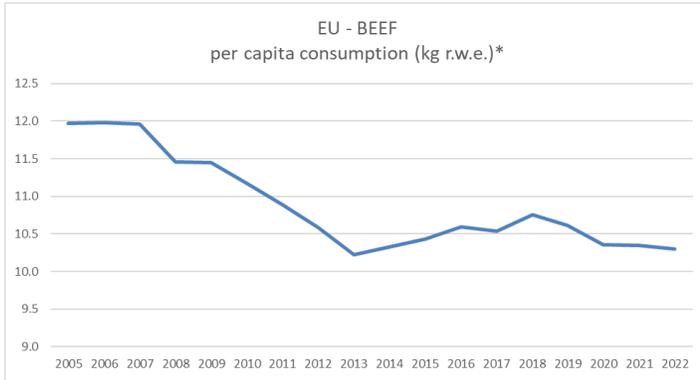


World Beef Prices in Euros/100 kg carcasse



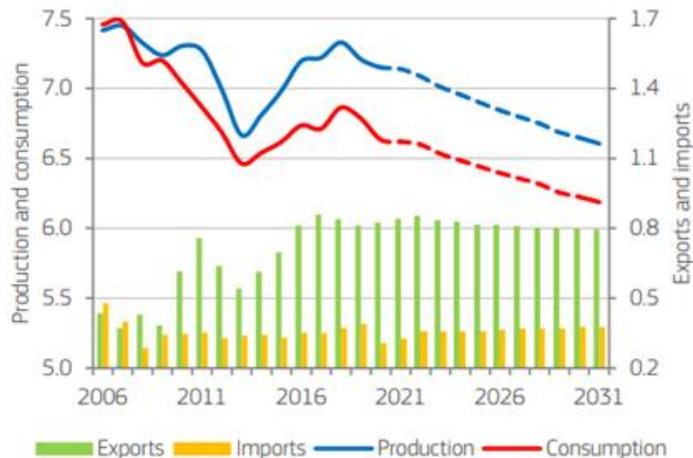
Beef consumption: evolution and future perspective

Historical consumption



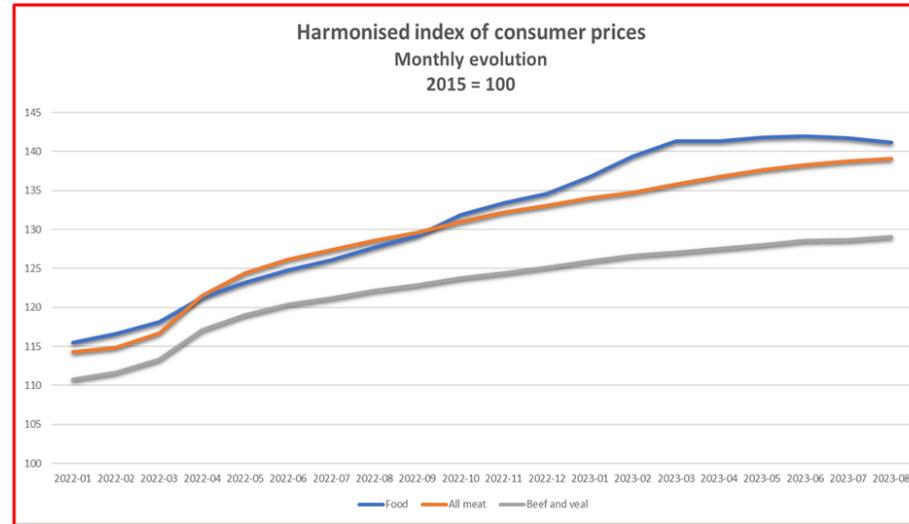
Forecast

GRAPH 4.4 EU beef and veal market balance (million t)



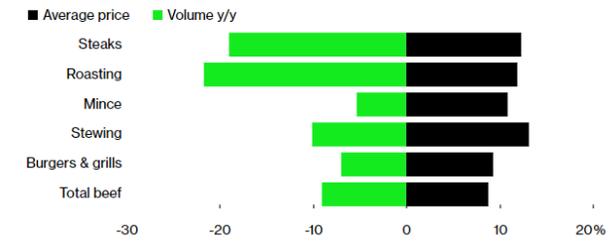
Note: Gross indigenous production; trade includes live animals.

Inflation and changing habits

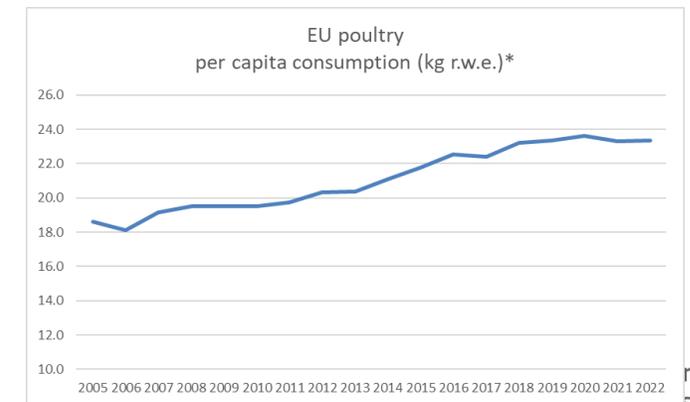


UK Shoppers Cut Back on Beef

Retail sales have dropped as prices have risen



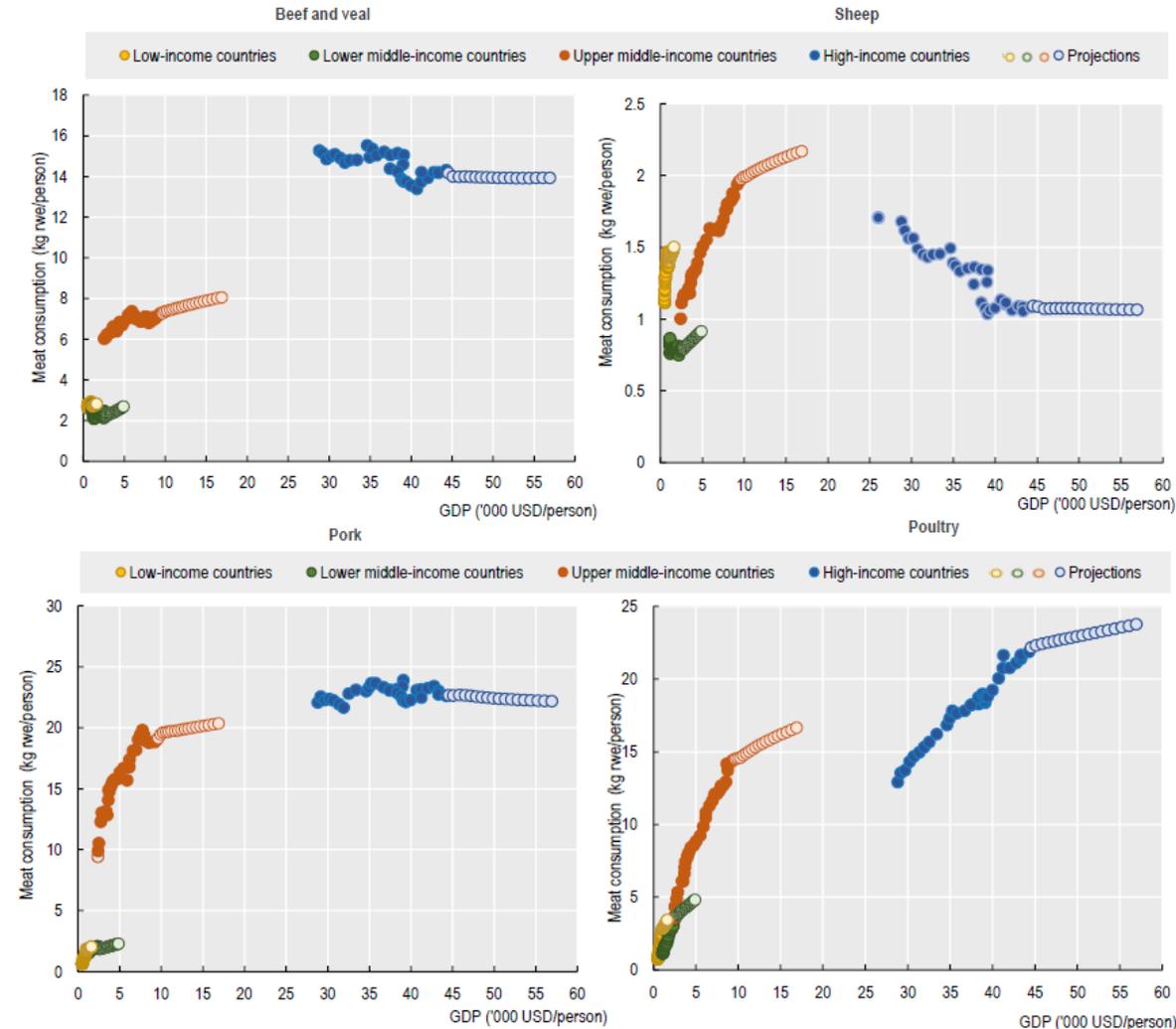
Source: AHDB, Kantar
Data for 52 weeks ended Dec. 25



World evolution of meat consumption

- Worldwide, poultry, pigmeat, beef, and sheepmeat consumption is projected to grow 15%, 11%, 10%, and 15% respectively by 2032.
- Poultry meat is expected to account for 41% of the protein consumed from all meat sources in 2032, followed by pig, bovine and ovine meat.
- The overall growth in the volume of meat consumption, aside from the United States, Brazil and China, is expected to be greater in low-income countries, especially India, Pakistan, the Philippines, Viet Nam, and the Sub-Saharan region of Africa.
- On a per capita basis, global meat consumption is set to rise by 2%.

Figure 6.1. Growth in Gross Domestic Product (GDP) and change in per capita consumption for meat, 1990 to 2040



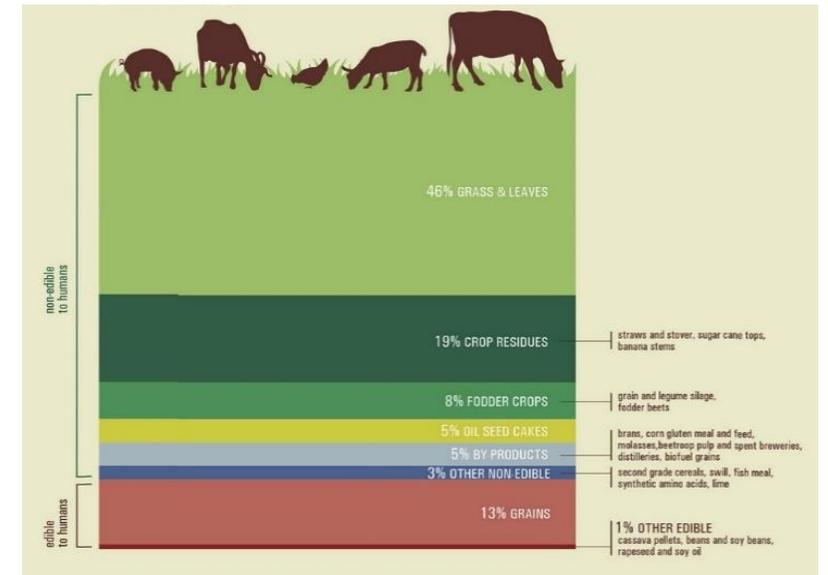
Role and challenges of livestock

- Animal products provide **50% protein intake** in the EU diet. Animal based food are a unique source of or are very rich in several micro nutrients (B12, A, B3, B6 and D, zinc, selenium, calcium, phosphorus and iron) and various bioactive components (e.g. taurine) important for cognitive functions
- From an economic point of view, livestock is crucial for EU agriculture:
 - They represent around **40% of the total agriculture value**
 - European industries linked to animal production (milk and meat processing, feed for livestock) have an annual turnover of approximately EUR **400 billion**
 - Livestock farms employ around **4 million people** in the EU
 - Livestock contributes to shape the EU farming system based on family farms: **58% of European farms hold animals**
 - The average livestock farm typically has 1 to 2 workers plus the family owner

Role and challenges of livestock

Positive externalities

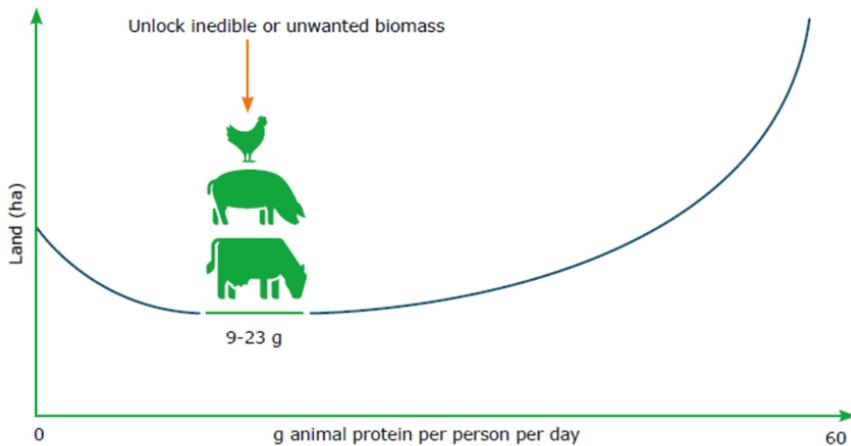
- Animals **convert nonedible biomass** into highly nutritious food for humans. At world level, only **14%** of dry matter ingested by livestock is edible to humans (**86% is grass and crop residues**).
- Livestock farming produces food on **57% of land that cannot be used for crops** (marginal land).
- Livestock farming ensures rural vitality and economic activity in regions where it is the **only sustainable economic activity** and crop farming is not possible due to soil/climatic conditions.
- Livestock is the agent able to convey nutrients from grassland to arable land and from N-fixing crops to other crops.



Livestock is part of circular-economy

"edible" plant cultures (e.g., grain)	harvested crops	vegan food	Technology	Proportion of inevitably occurring by-products (% of dry matter input)
	co-products (e.g., straw)	by-products of processing		
green biomass	crop rotation (clover, alfalfa, ...)	non-edible biomass	Milling cereals	20-30
	absolute grassland (non-arable, Germany 30%, globally >70%)		Starch production	25-30
			Sugar production	45
			Oil production	55 - 60
			Alcohol production (brewery, bioethanol), (1/3 of biomass is lost as CO ₂ along with fermentation)	25-35

Agriculture produces **non-edible** biomass



- **Low-opportunity cost feed:** Livestock fed with grass, co-products, food processing by-products and part of the food wasted (35% of the total wasted food) could provide a significant, non-negligible, part (9–23 g/per capita) of EU daily protein needs (~50–60 g/per capita).

Efficiencia Protéique Nette (EPN) Productions laitières : chèvre, vache & brebis

B. Rouillé, B. Fañça, J. Jost, B. Bluet, M. Laurent, E. Morin, F. Bienne, M. Le Tiec
benoit.rouille@idele.fr

Demande croissante de produits d'origine animale dans le monde
- Inefficiencia des systèmes d'élevages décrite dans la presse
- Cependant les ruminants valorisent des produits non valorisables par l'homme (herbe, coproduits)

Evaluer objectivement la contribution des élevages laitiers à la production alimentaire pour l'homme

$$\text{Efficiencia protéique nette EPN} = \frac{\text{protéines animales consommables par l'homme produites par l'élevage (kg)}}{\text{protéines végétales consommables par l'homme consommées par l'élevage (kg)}}$$

Animal	Protein Consumed (kg)	Protein Produced (kg)	Net Protein Production (%)
Chèvre	6,51	0,89	86%
Vache	4,95	0,53	89%
Brebis	7,76	0,86	89%

86 % des protéines consommées par le troupeau ne sont pas consommables par l'homme

Animal	Protein Consumed (kg)	Protein Produced (kg)	Net Protein Production (%)
Chèvre	6,51	0,89	50%
Vache	4,95	0,53	76%
Brebis	7,76	0,86	52%

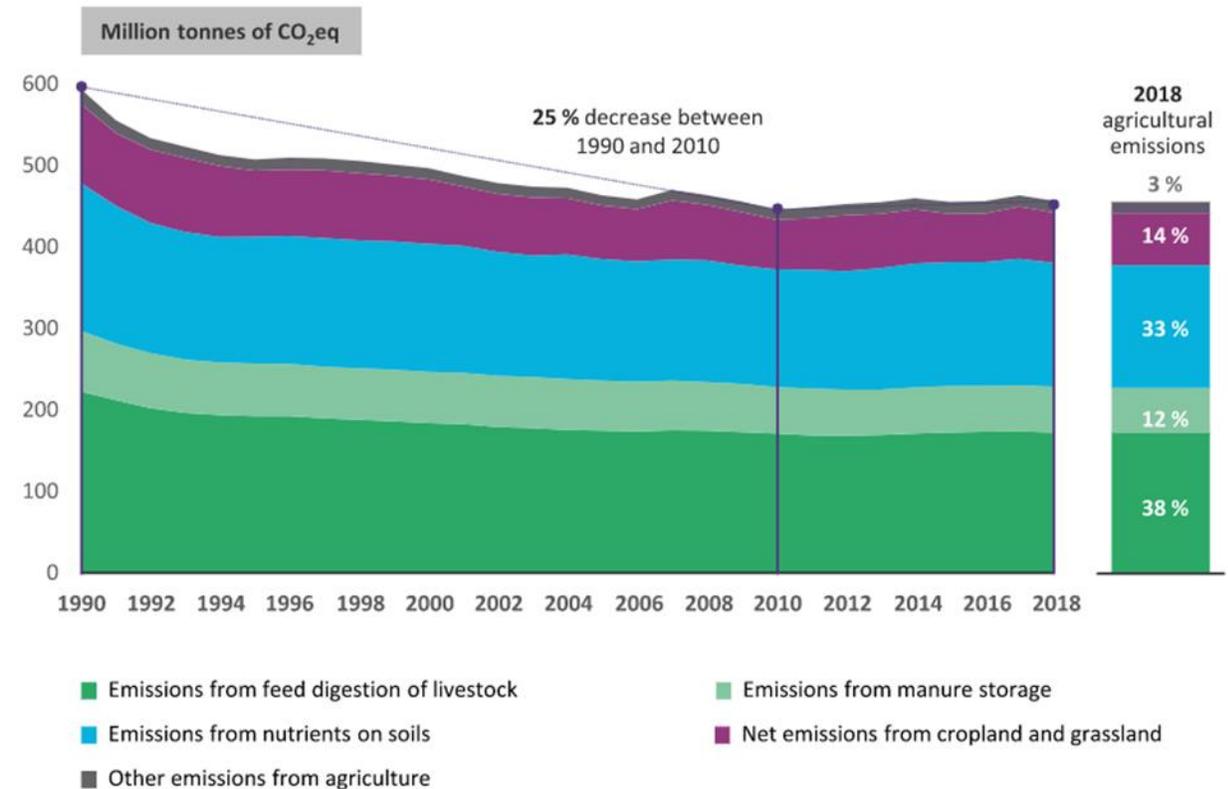
50 % des élevages laitiers sont producteurs nets de protéines

Logos: UniLaSalle, Inosys, INRA, European Commission, etc.

Livestock impact on climate change

- EU agriculture is responsible for some **10%** of total EU GHG emissions.
- Livestock represents one of the main emission source (**50%** of which come from enteric fermentation and manure management).
- EU-28 agricultural GHG emissions decreased by 24% from 1990 to 2013 and EU agricultural methane decreased by 21%, mainly thanks to a decreasing cattle herd.

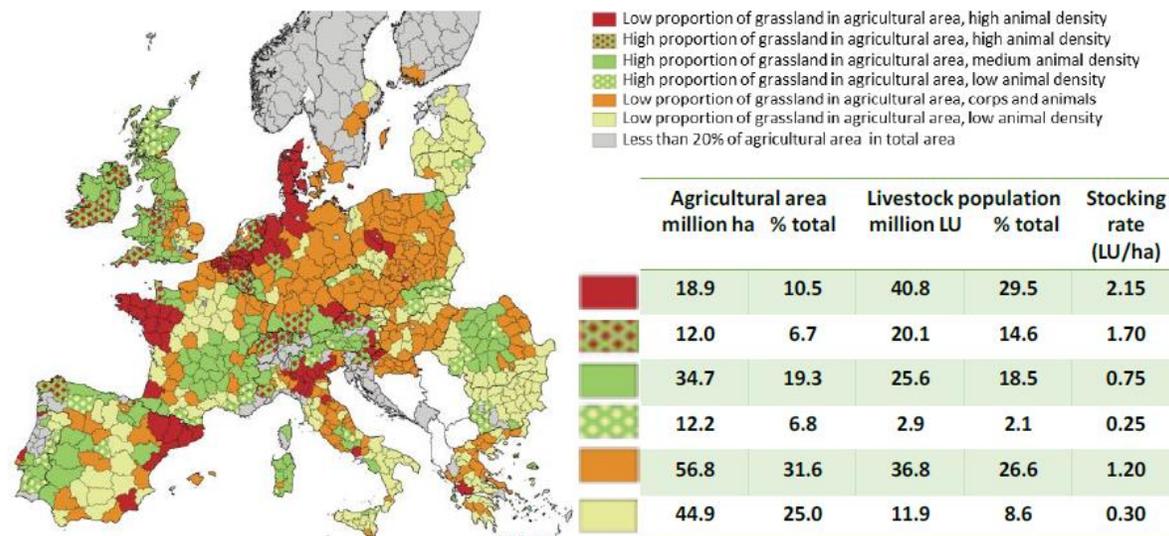
EU-27 greenhouse gas net emissions from agriculture since 1990



Source: ECA based on EU-27 greenhouse gas inventories 1990-2018 (EEA greenhouse gas data viewer).

Livestock impact on air, soil and water

- Environmental impacts mainly result from the **concentration of livestock in geographical areas** (close to processing) due to specialisation (no more mixed crop-livestock systems) and scaling-up of production for cost reduction.
- In those areas with high livestock density, **nitrate leakage** is higher in **water**, as well as ammonia and nitrogen emissions.
- Livestock is responsible for **80%** of **soil acidification** and **air pollution** derived from agriculture, and for **73%** of **water** pollution from agriculture.



Animal welfare and societal concerns and expectations

European Citizens' Initiative Forum

EU citizens call for an end to cages for animals

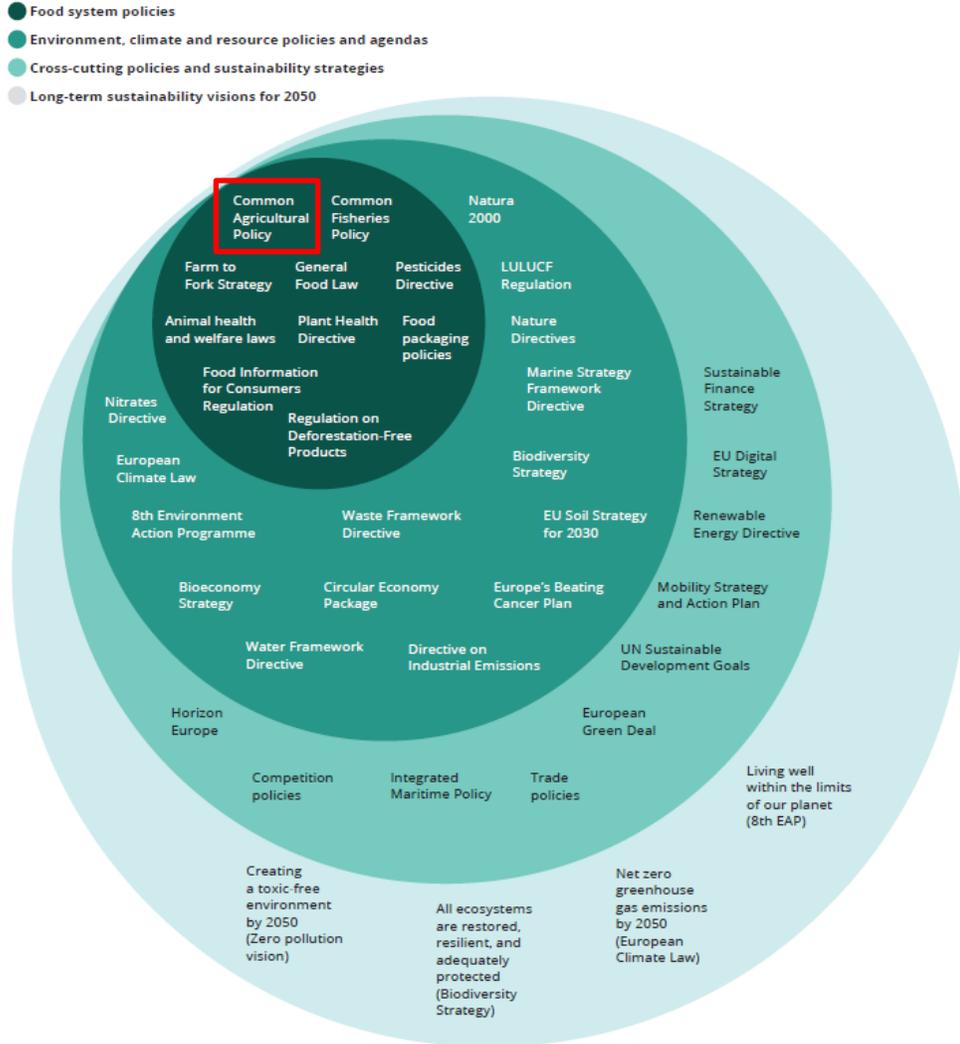
Updated on: 03/10/2018



On 11 September, the European Commission [registered](#) the European Citizens' Initiative (ECI) '[END THE CAGE AGE](#)'. The initiative, launched by European citizens, aims to put an end to what the organisers describe as 'the most appalling symbol of industrial animal farming': the cage.



EU Policies for sustainable food system



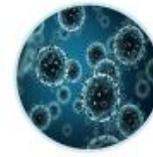
Farm to Fork Strategy Targets



Reduction by 50 % of the overall use and risk of **chemical pesticides** and reduction use by 50 % of more hazardous pesticides by 2030



Achieve at least 25 % of the EU's agricultural land under **organic farming** and a significant increase in **organic aquaculture** by 2030



Reduced sales of **antimicrobials** for farmed animals and in aquaculture by 50 % by 2030



Reduce **nutrient losses** by at least 50 % while ensuring no deterioration in soil fertility; This will reduce use of **fertilizers** by at least 20 % by 2030



Making back at least 10 % of agricultural area under **high-diversity landscape features** by 2030



Achieve 100 % access to **almost broadband internet** in rural areas by 2025



OBJECTIVE	INVENTORY OF LEGISLATION - WIKI MAIN SECTIONS
AIR QUALITY	National Emission Ceilings Directive (NECD) Industrial Emissions Directive (IED) ¹ Ambient Air Quality Directive (AAQD)
WATER QUALITY	Nitrates Directive (ND) Water Framework Directive (WFD)
BIODIVERSITY	Natura 2000 - Prioritized Action Framework ² Habitats Directive Birds Directive
ENERGY AND CLIMATE	2030 Climate and Energy Framework ³ Governance of the Energy Union and Climate Action Renewable Energy Directive (RED) Energy Efficiency Directive (EED) Effort Sharing Regulation (ESR) Land use, Land use change and Forestry Regulation (LULUCF)
OTHER	Sustainable use of Pesticides Directive (SUD)

¹ Although not listed in Annex XI, the IED is included as it is closely linked to the NECD. The IED regulates pollutant emissions from industrial installations (in the agricultural sector this applies to large pig and poultry farms)

² The Natura 2000 network is a network of specifically designated areas aiming to protect a sub-set of species or habitat types listed in the Habitats and Birds Directives. Conservation objectives are set for each Natura 2000 site in order to contribute to the overall objective of the two Nature Directives, which is to achieve a favourable conservation status. Green infrastructure located outside the Natura 2000 network can play a significant role in achieving this objective

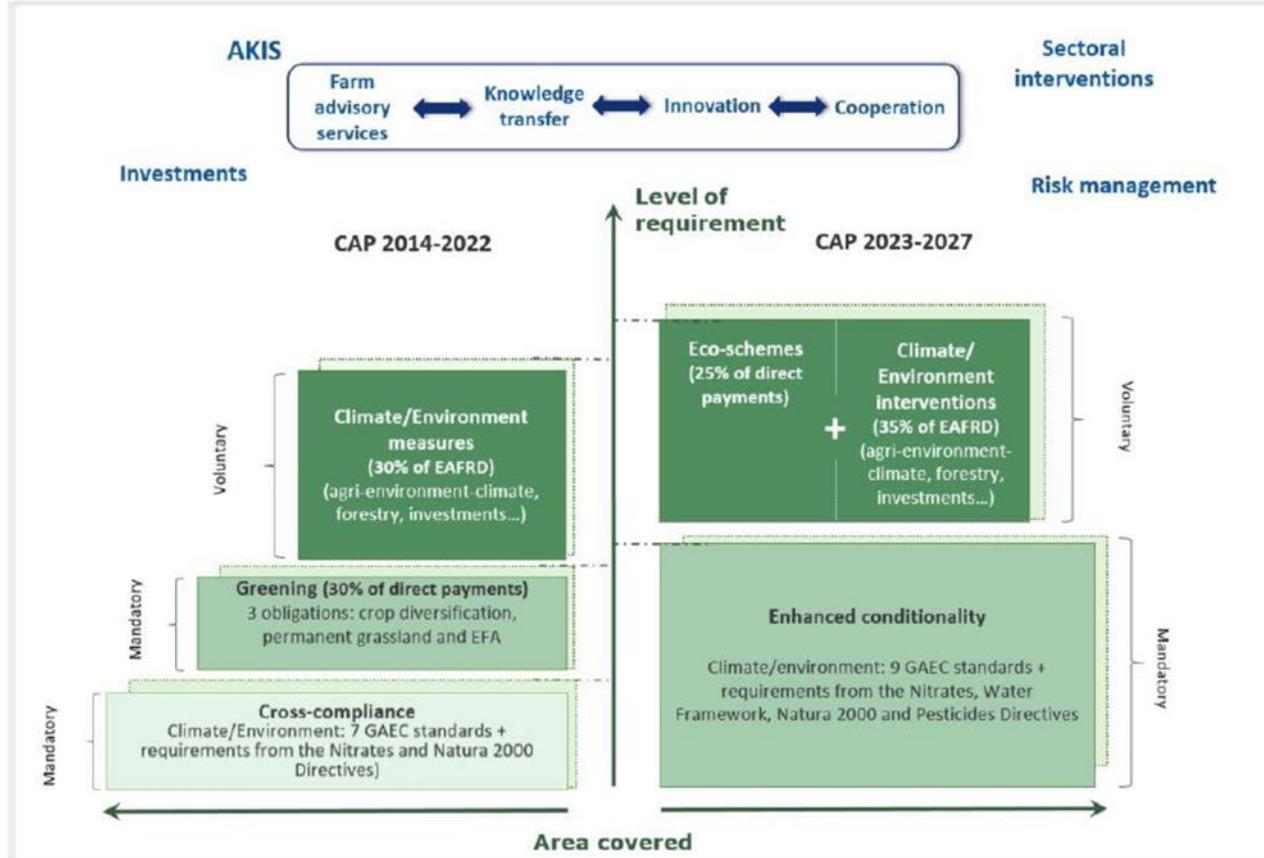
³ This section provides an overview of the legislation framework regarding energy and climate

CAP Strategic Plans need to explicitly contribute

EU policies for beef sustainability and competition

- 1) **Income support** and risk management
- 2) **Remuneration of farmers for positive externalities** (eco-scheme – carbon farming – climate and environmental measure in RD – organic agriculture)
- 3) **Improving farmer position in the food chain** (UTP – market transparency – sectorial intervention in the CAP SP – derogation to competition rules)
- 4) **Inform consumers** and premium prices (AW and sustainability labelling)
- 5) **Trade**
- 6) Foster **Research and development** and scale up **innovation**
- **Structural dialogue on agriculture**

The CAP green architecture



Overall, the CAP Strategic Plans **devote 32% of the total public CAP funding** (EUR 97.6 billion) to **encourage** farmers to invest or implement practices going beyond the conditionality **to deliver environmental benefits** for climate, water, soil, air, biodiversity, and animal welfare and help the EU advance towards the Green Deal objectives.

Source: EC Commission (April, 2023) Approved 28 CAP Strategic Plans (2023-2027)

As direct payments constitute the largest share of CAP' spending and cover a larger proportion of the EU's utilised agricultural area, the planned spending on eco-schemes offers a wide reach to foster the transition of farmers towards more sustainable farm practices and systems. At EU level, eco-schemes will cover around 110 million hectares in 2023 if farmers subscribe to the schemes as expected, which represents nearly 68% of total UAA.

Concrete examples – Eco-schemes/Investments for livestock sectors

Production system

1. More **temporary grassland** in rotation
2. Longer rotation with **leguminous crop** for feeding
3. **Grazing management optimization** as additional module in FaST
4. **Extensive livestock management** system
5. Increase **grass-fed production**
6. Investment for **agro-forestry system**
7. Payment for **permanent grassland / peatland / wetlands**

Manure management

16. Investment in low-emission **manure storage** system
17. **Anaerobic digestion / methanisation**
18. **Organic fertilisers / soil improver**
19. **Nutrient management plans** at local level
20. Investment in and use of low emission **manure spreading techniques** (ground level application of manure and slurry)

Focus on animals

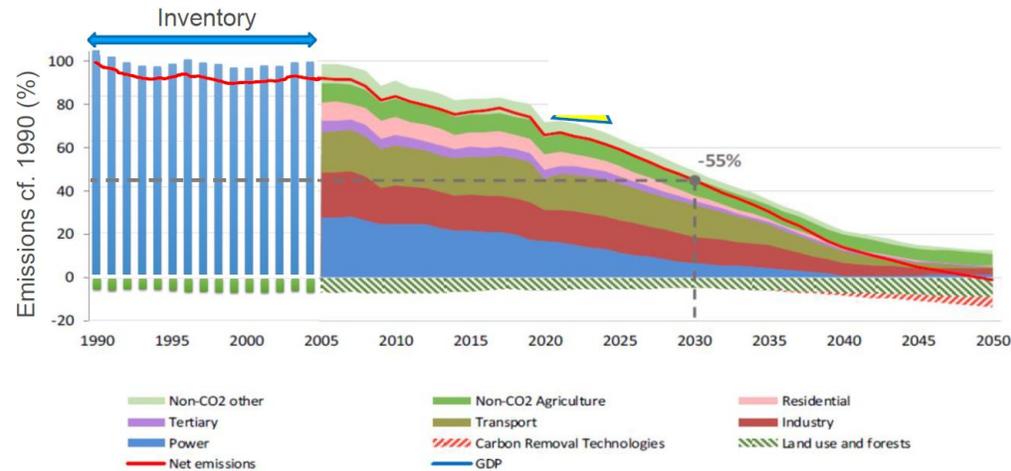
8. **Feed additives** to reduce methane emissions (3-Nitrooxypropanol, Linseed, Seaweed)
9. **Increased share of co-products** in the feed ratio
10. **Precision protein feeding** (avoiding N surplus in the ratio, reducing leakage)
11. **Use of sexed semen in dairy herd** enhancing meat production from the dairy herd (maintain output using fewer resources)
12. **Increased number of lactations per dairy cow** to increase efficiency (maintain output using fewer resources)
13. Maintain/re-introduce **local resistant breeds**
14. Invest in more **animal welfare**, such as improved **housing** systems (including e.g. new ventilation systems, filters for methane)
15. Support **carbon audits** for better management and for labelling purposes

Knowledge and innovation

21. vocational or specific **training courses for farmers or advisors**
22. use of **advice by farmers**
23. setting up of **advisory services, e.g. for innovation support**
24. **on-farm demonstration** activities

Carbon farming and climate neutrality

- The impact assessment showed that 55% by 2030 can be achieved in a responsible way
- Economic growth can be decoupled from resource use
- All economic sector should contribute



Achieving the higher targets

Simpler, more transparent and effective compliance rules and targets > move to reported data

Increase EU carbon removals to at least 310 Mt by 2030 > single EU target for the sink

Climate neutral EU land sector by 2035

Increase net carbon removals by 20%

- Rewetting of drained peatlands
- Afforestation and reforestation
- Soil management
- Agroforestry
- Carbon Storage Products, Harvested Wood Products

Reduce non-CO2 emissions by 20%

- Precision farming
- Efficient fertiliser use
- Anaerobic digestion
- Feed additives and breeding



European Commission

Technical Guidance Handbook

Setting up and implementing result-based carbon farming mechanisms in the EU

European Commission

Operationalising an EU carbon farming initiative

Executive summary

EUROPEAN COMMISSION

Brussels, 30.11.2022
COM(2022) 672 final
2022.0394(COD)

Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing a Union certification framework for carbon removals
{SEC(2022) 423 final} - {SWD(2022) 377 final} - {SWD(2022) 378 final}

R&D and Innovation

Recent /on-going projects on sustainable livestock*

- **HoloRuminant** , *Understanding microbiomes of the ruminant holobiont* <https://holoruminant.eu/> (9.7M€, Oct 2021 – Sept 2026)
- **Re-Livestock**: *Facilitating Innovations for Resilient Livestock Farming Systems* <https://re-livestock.eu/> (9.5M €; Sept. 2022 - Aug. 2027)
- **Grazing4AgroEcology**: *European network to promote grazing and to support grazing-based farms on their economic and ecologic performances as well as on animal welfare* <https://grazing4agroecology.eu/> (9.5M €; Sept. 2022 - Aug. 2027)
- **PATHWAYS**: *Pathways for transitions to sustainability in livestock husbandry and food systems* <https://cordis.europa.eu/project/id/101000395> (9M€, Sept. 2021 – Aug. 2026)
- **INTAQT**: *INnovative Tools for Assessment and Authentication of chicken meat, beef and dairy products' QualiTies* <https://cordis.europa.eu/project/id/101000250> - (RIA, 6M €, June 2021 – May 2026)
- **Code Re-farm**: *Consumer-driven demands to reframe farming systems* <https://coderefarm.eu/Projects/Coderefarm.html> (6M€; May 2021 – Oct 2024)
- **MIXED** *Multi-actor and transdisciplinary development of efficient and resilient MIXED farming and agroforestry-systems* <https://cordis.europa.eu/project/id/862357> (RIA, 7M€; Oct. 2020 – Sep. 2024)
- **TechCare**: *Integrating innovative technologies along the value chain to improve small ruminant welfare management* <https://techcare-project.eu/project/> (IA, 5.7M €, Sep. 2020 – Aug. 2024)
- **R4D**: *Resilience For Dairy*. <https://cordis.europa.eu/project/id/101000770> / <https://eurodairy.eu/> (CSA, 2M€, Jan. 2021 - Dec. 2023)
- **Sm@RT**: *Small Ruminant Technology - Precision Livestock Farming and Digital Technology for Small Ruminants* <https://smartplatform.network/> (CSA, 2M€; Jan. 2021 – Dec. 2023)
- **EuroSheep** *European Network for interactive and innovative knowledge exchange on animal health and nutrition between the sheep industry act and stakeholders* <https://eurosheep.network/> (CSA, €2M; Jan. 2020 – June 2023)
- **BovINE** *Beef Innovation Network Europe* <https://www.bovine-eu.net/> (CSA, 2M€; Jan. 2020 – Dec. 2022)
- **HoloFood** *Holistic solution to improve animal food production through deconstructing the biomolecular interactions between feed, gut microorganisms and animals in relation to performance parameters* <https://www.holofood.eu/> (IA, 10M€; Jan. 2019 – Dec. 2022)
- **SMARTER** *SMAll RuminanTs breeding for Efficiency and Resilience* www.smarterproject.eu/ (RIA, 7M€; Nov. 2018 – Oct. 2022)

*Ruminants - Not exhaustive list



FACCE-JPI ERA-GAS projects: CEDERS, CCCFarming, FarmSustainBI, GrassToGas, GrASTech, M4Models, MELS...

ERA-NET SusAn projects: SusSheP, SusPig, Sustainbeef, SusCatt, SusTradeOff...



Conclusions

In face of societal demands, is it still legitimate to talk about livestock? **Yes**

Because

- Animal products cannot be easily replaced
- Livestock is part of circular agriculture and provide positive externalities
- Livestock is essential for rural economy

but

- Numerous challenges: Environment (soil, water & air), climate (GHG & methane), health (chronic diseases, cancer), animal welfare

Therefore

- The transition to more sustainable food system cannot be postponed
- We need to ensure that livestock production takes place in the most sustainable way in the EU
- Extensive grassland livestock system have to be rewarded for the positive externalities they provide
- Intensive livestock systems would need to go through a major transformation (innovation – animal welfare – feed optimization – reducing input dependency)
- Can livestock be sustainable? **Yes**
- Can the CAP (Common Agricultural Policy) help? **Yes**



Thank you



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