

AGRICULTURE IN SLOVENIA & FADN

28th Pacioli workshop

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SI agricultural production - general

Slovenia covers an **area of 20,273 km²**.

Characteristics of Slovenian space:

- **high relief** - almost 90% of the area lies at an altitude of more than 300 m above sea level,
- **only 20%** of the territory is flat (**valleys, basins**).

The varied natural conditions influence:

- agricultural production,
- high biodiversity,
- dispersed settlement and
- a large number of small settlements.

LAND COVERAGE: More than half of Slovenia's land area is covered by forests (2018: 60%, EU-27: 34%), and around a quarter of the land area is used for agriculture (2018: 27%, EU-27: 40%)*.



Due to the natural conditions in Slovenia and the predominant grassland in the land use structure, livestock farming is by far the most important production orientation of the Slovenian agriculture.

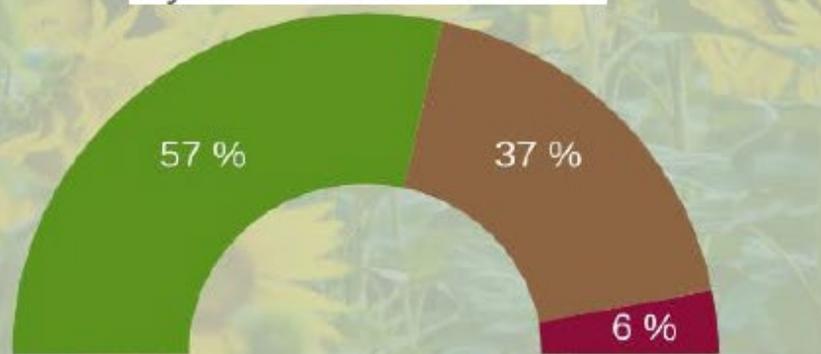
SI agricultural production - general



Structure of agricultural holdings in Slovenia

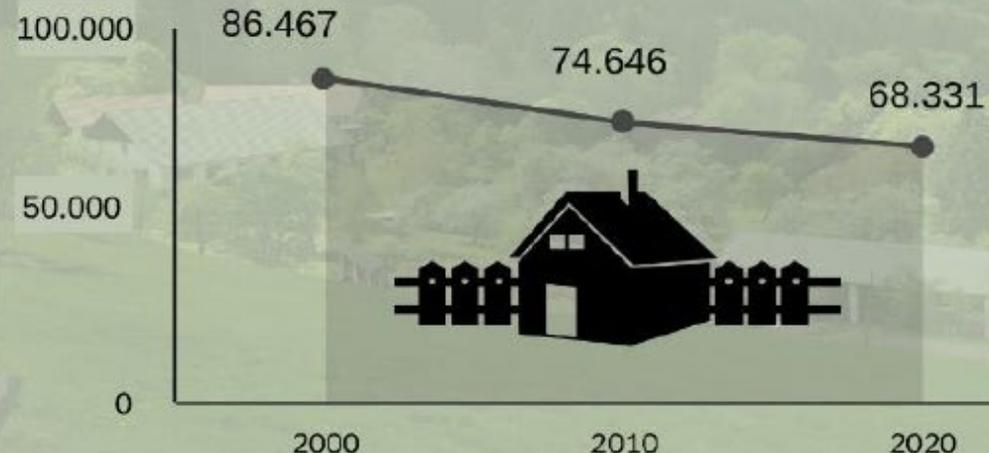
Utilised agricultural area (UAA)

year 2020: 474.633 ha



permanent grasslands & pastures arable l. permanent crops

Number of agricultural holdings



Source: Statistical office of the Republic of Slovenia

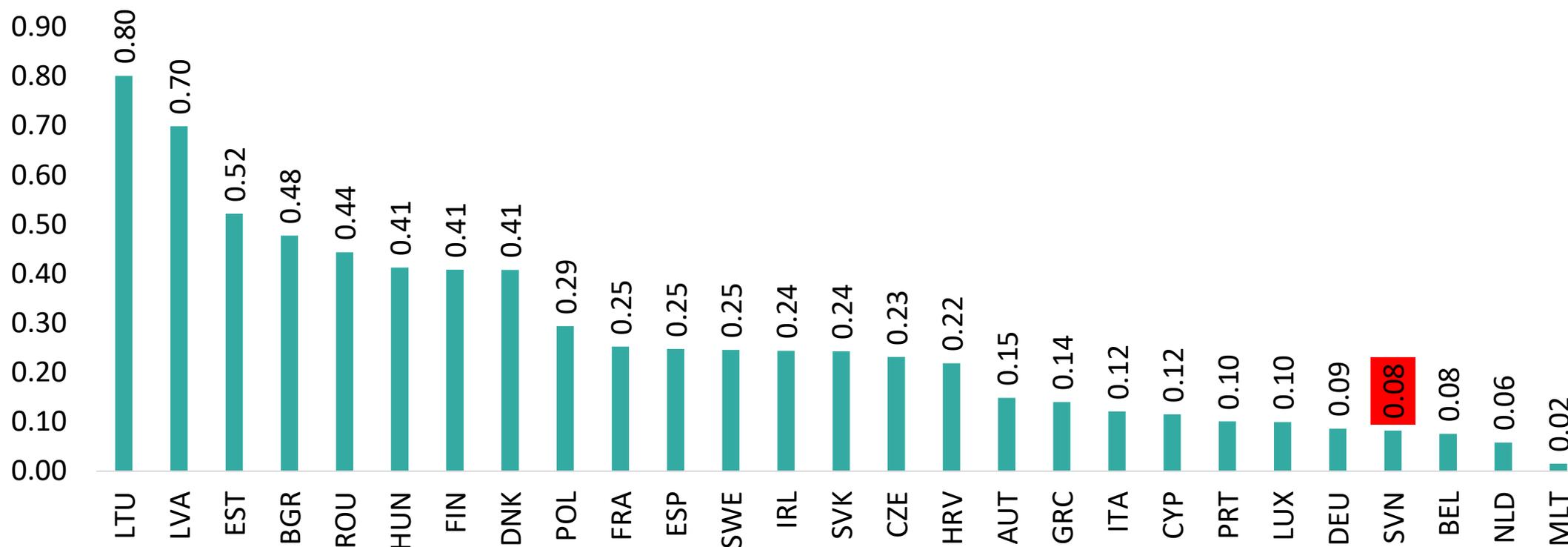
In 2020, there were **68.331 agricultural holdings** in Slovenia, using just over **474 thousand ha of utilised agricultural area**.

The average size of an agricultural holding regarding utilised agricultural area in 2020 is only **7.0 hectares**.

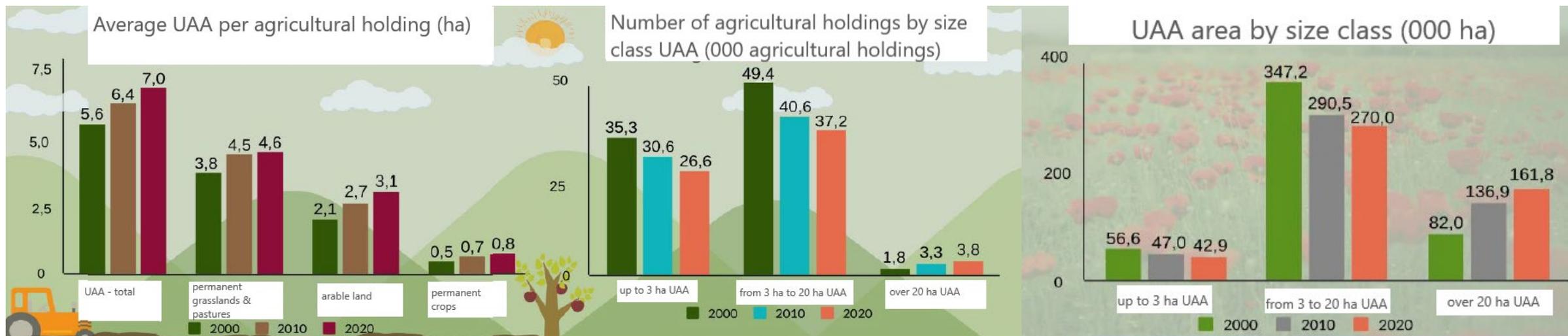
SI agricultural production - general



Arable land in the year 2020 (ha) per CAPITA

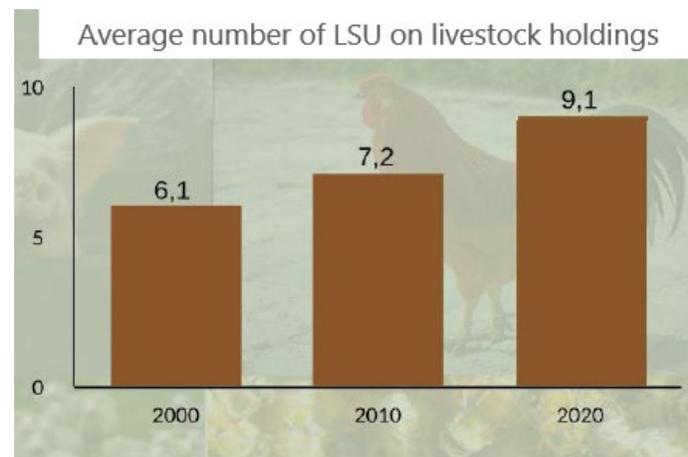
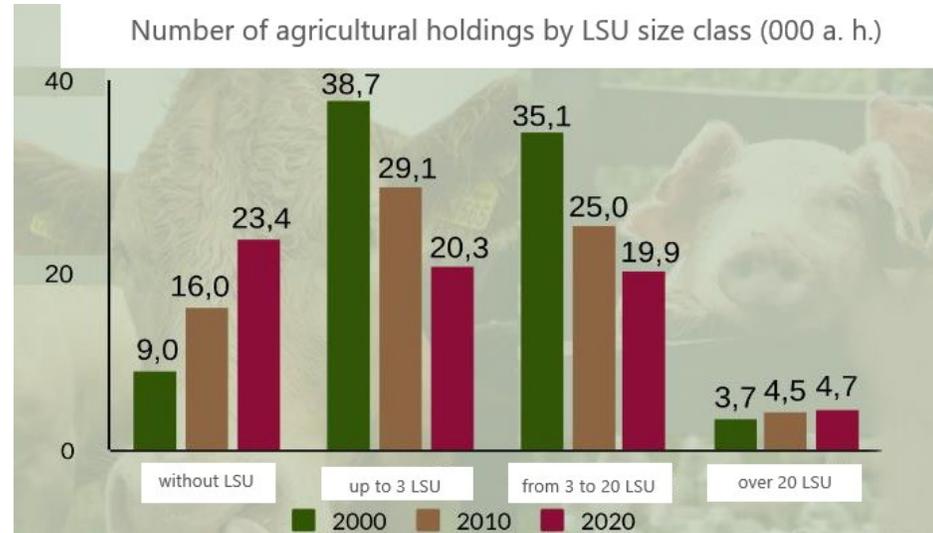
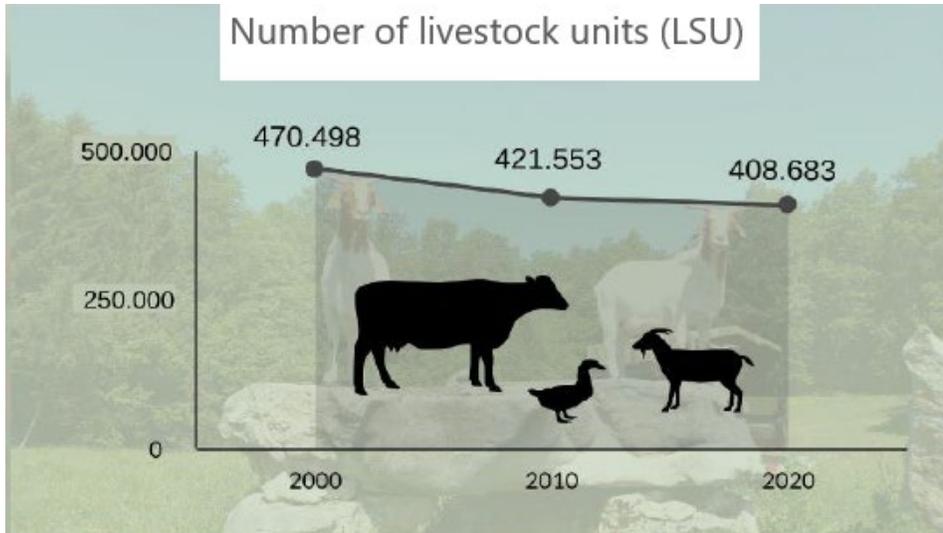


SI agricultural production - general



Source: Statistical office of the Republic of Slovenia

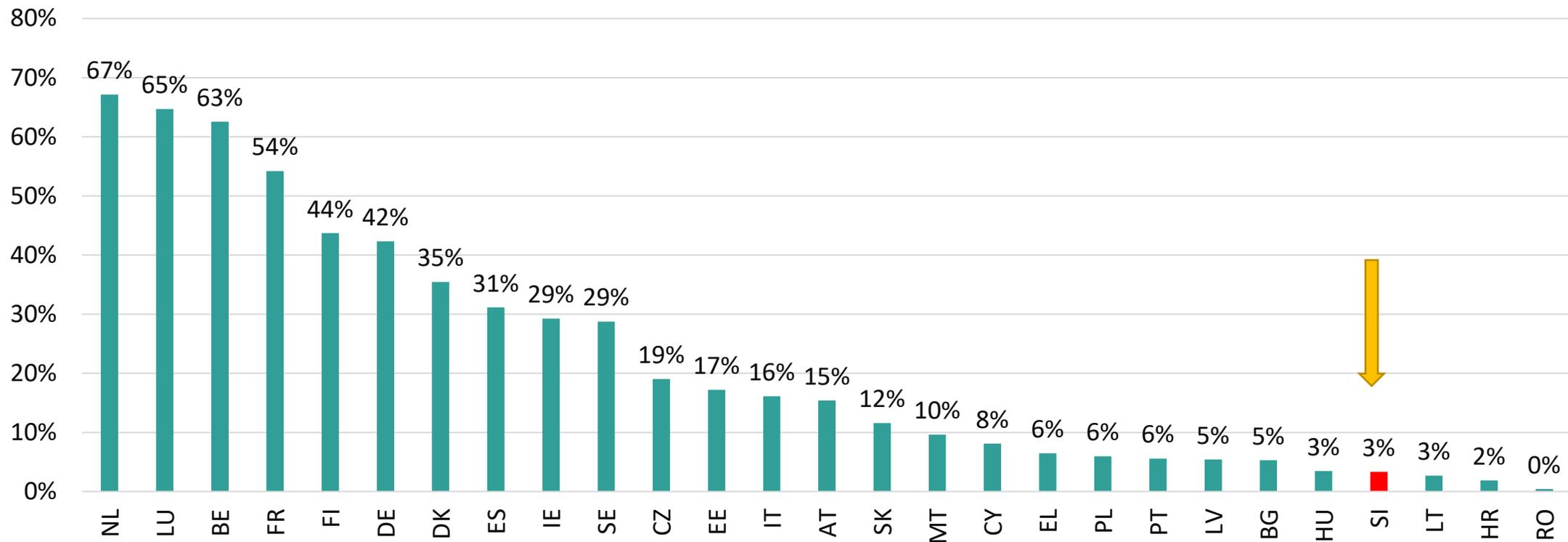
SI agricultural production - general



Animal husbandry in comparison with EU

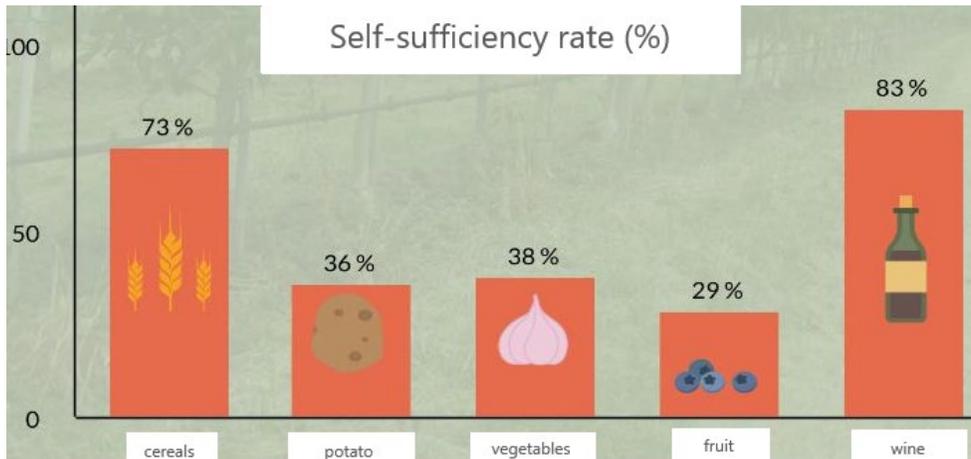


% No of livestock farms with at least 50 livestock units in 2020



SI agricultural production – self-sufficiency rate

Crop production

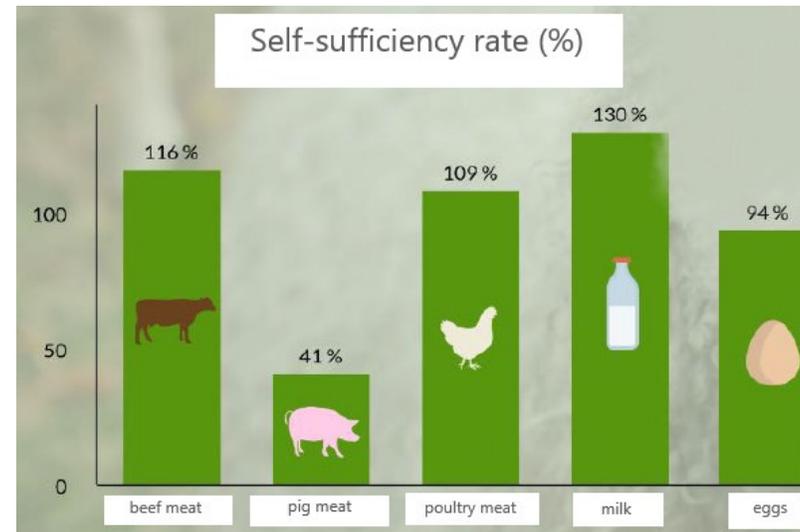


Consumption per capita

cereals	85 kg
potato	70 kg
vegetables	105 kg
fruit	133 kg
sugar	35 kg
rice	5 kg
wine	33 l

Self-sufficiency is the **highest in animal products** and much lower in plant production due to the oscillations in production level caused by extreme weather events such as severe droughts.

Animal products



Consumption per capita

meat, total	87 kg
beef meat	20 kg
pig meat	30 kg
poultry meat	32 kg
milk, total	211 kg
eggs	11 kg
honey	1 kg

SI is more than 100% self-sufficient in milk, poultry meat and beef.

SI agricultural production – economic results



Economic results of agriculture

Factor income

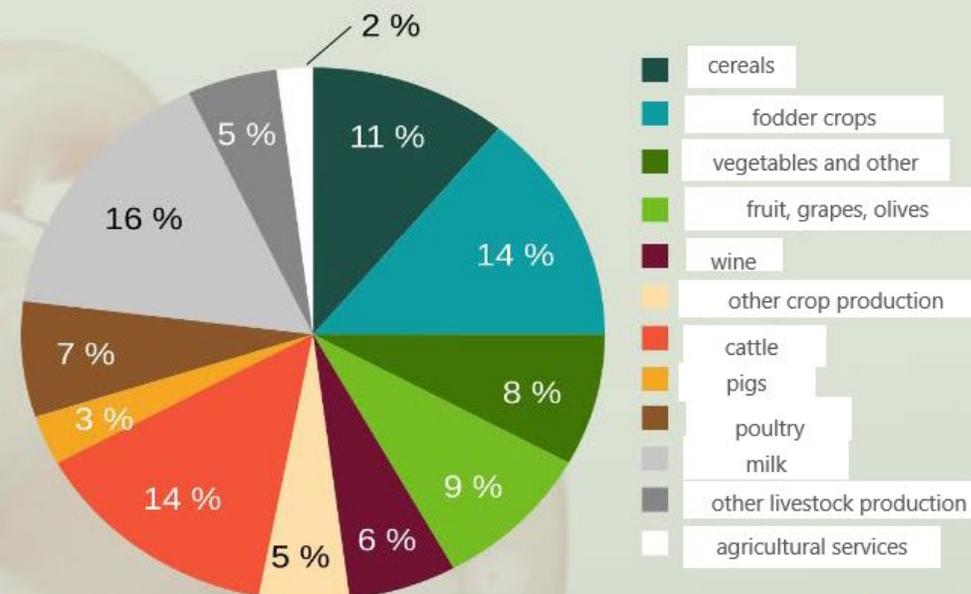
541 mil. EUR current prices
(+19.4% in real terms compared to 2021)

Factor income per full-time equivalent

7.419 EUR/FTE current prices
(+20.5% in real terms compared to 2021)

Structure of the value of agricultural production (%)

1.670 mil. EUR current prices



Standard Output (SO)

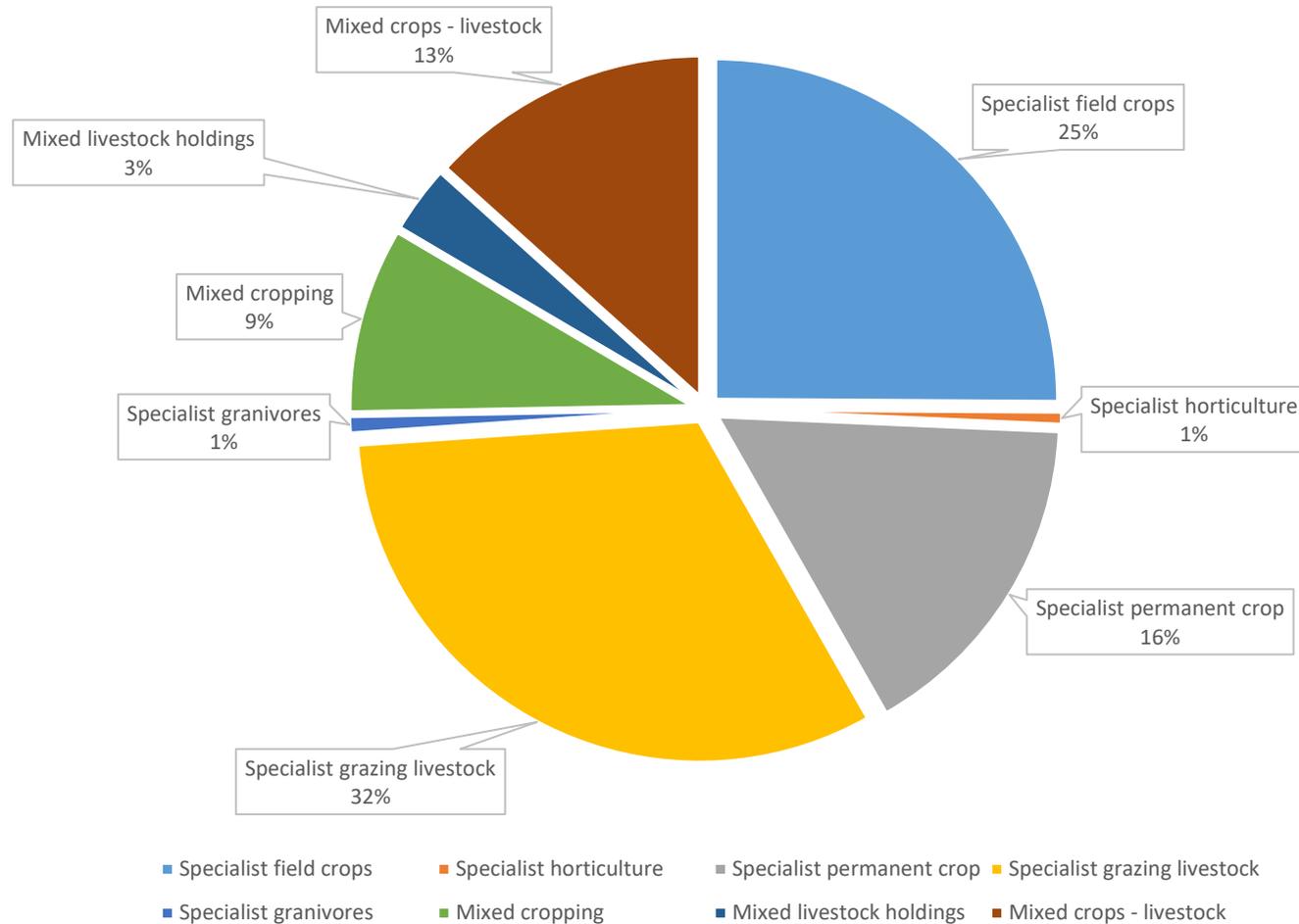


Economic size (000 EUR) by main types of farming; 2010, 2020

	Economic size (000 EUR)		Index 2020/2010	Structure (%)	
	2010	2020		2010	2020
Arable farming	62.666	126.992	202,6	6,9	11,1
Horticulture	27.253	23.306	85,5	3,0	2,0
Permanent crops	76.194	191.860	251,8	8,3	16,7
Livestock grazing	457.907	469.197	102,5	50,1	40,9
Pig and poultry farming	92.419	108.506	117,4	10,1	9,5
Mixed crop production	31.544	63.171	200,3	3,5	5,5
Mixed livestock production	47.735	31.633	66,3	5,2	2,8
Mixed crop and livestock production	117.477	132.680	112,9	12,9	11,6
Total	913.194	1.147.345	125,6	100	100

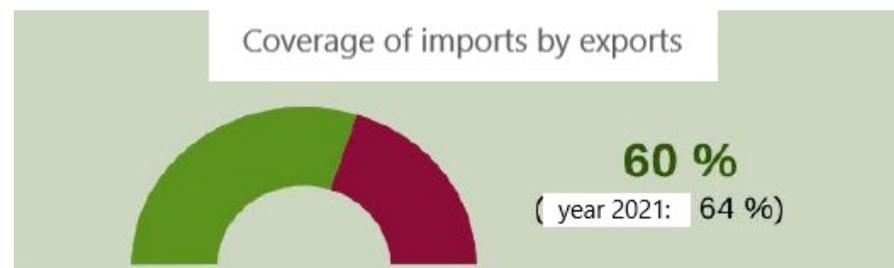
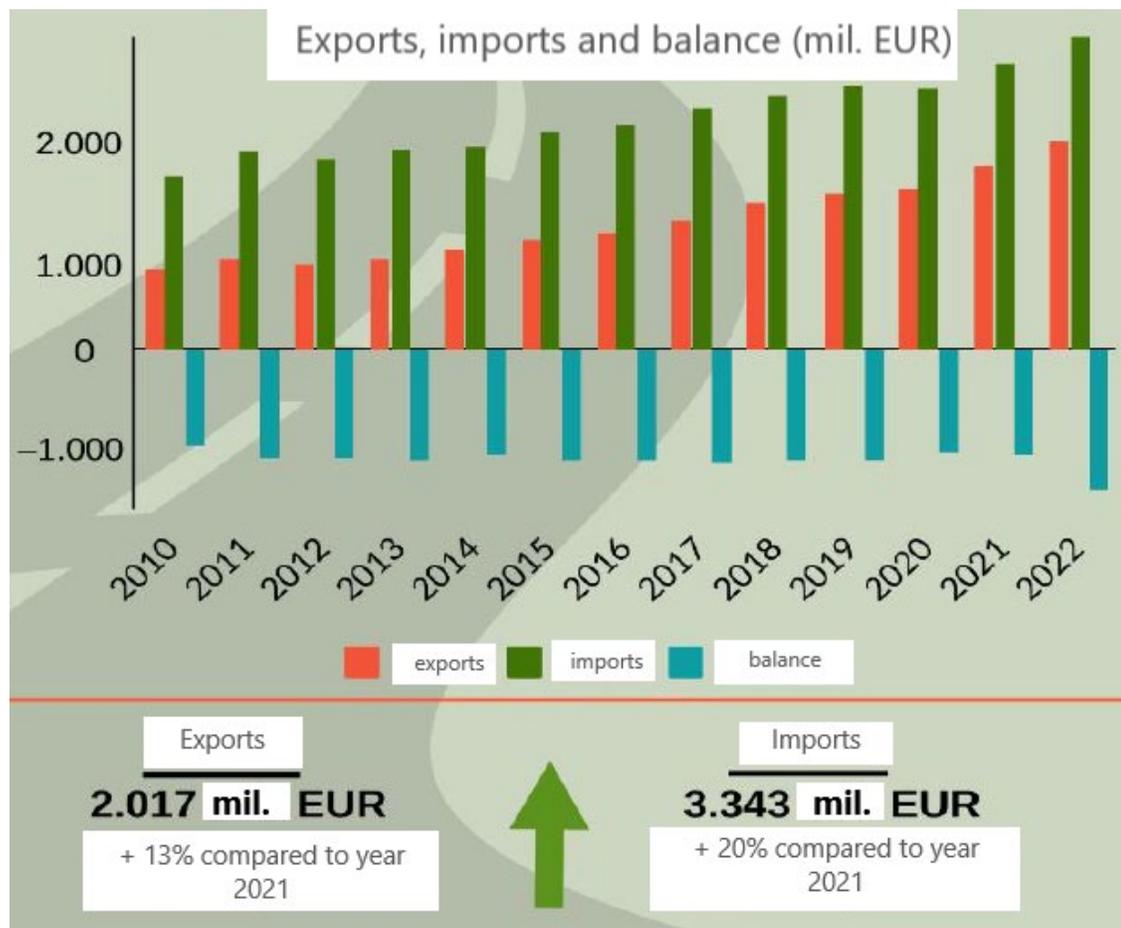
- In 2020, the total standard output of agricultural holdings was €1.15 billion, a quarter more than in 2010, with more than 80% of the total income coming from specialised agricultural holdings, most of which were oriented towards livestock grazing (41%).
- Between 2010 and 2020, the highest increase in income was seen in the permanent crop agricultural holdings, while the income of mixed livestock agricultural holdings fell by a third.

Typology of agricultural holdings



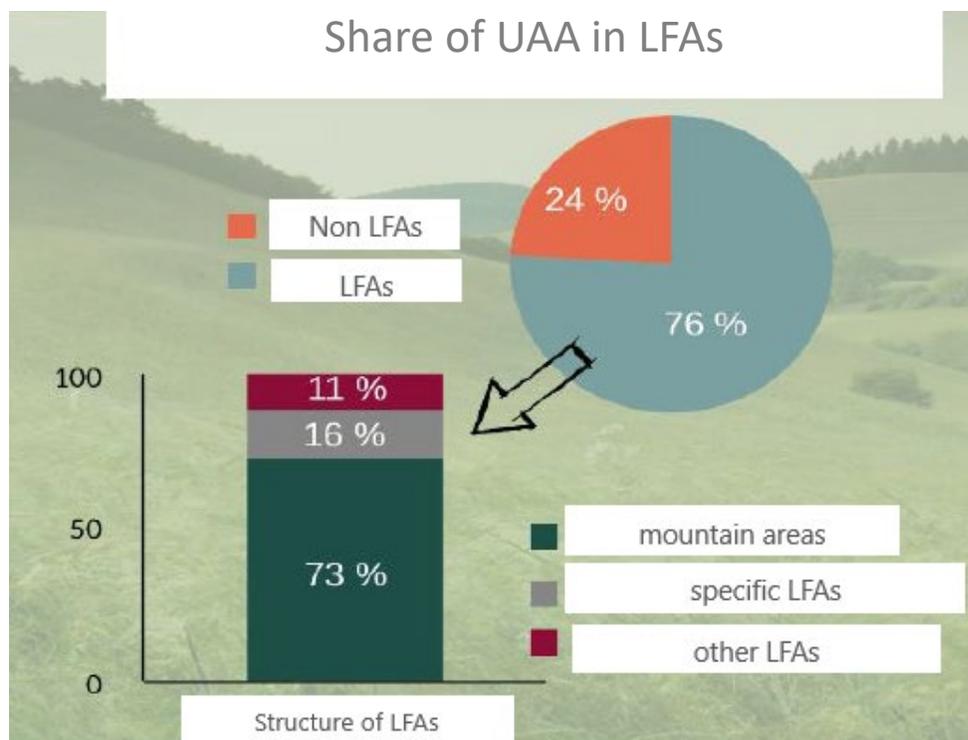
- ❑ Natural conditions and the historical development of agriculture dictate the predominant influence of livestock production.
- ❑ In Slovenia, 75% of agricultural holdings in 2020 were oriented towards only one type of crop or livestock production.

SI trade in agri-food goods



- Slovenia is a **net importer of food**, as domestic production does not satisfy the total needs (especially for cereals, potatoes, vegetables, fruit, pig meat, and honey).
- In Slovenia, **most of the consumed food (more than 70 %) is imported**, only about a third is of Slovenian origin; before 2004, 40 % of the consumed food was imported.
- After Slovenia joined the EU, **the import and export of food has increased significantly.**

Less favoured areas (LFAs)

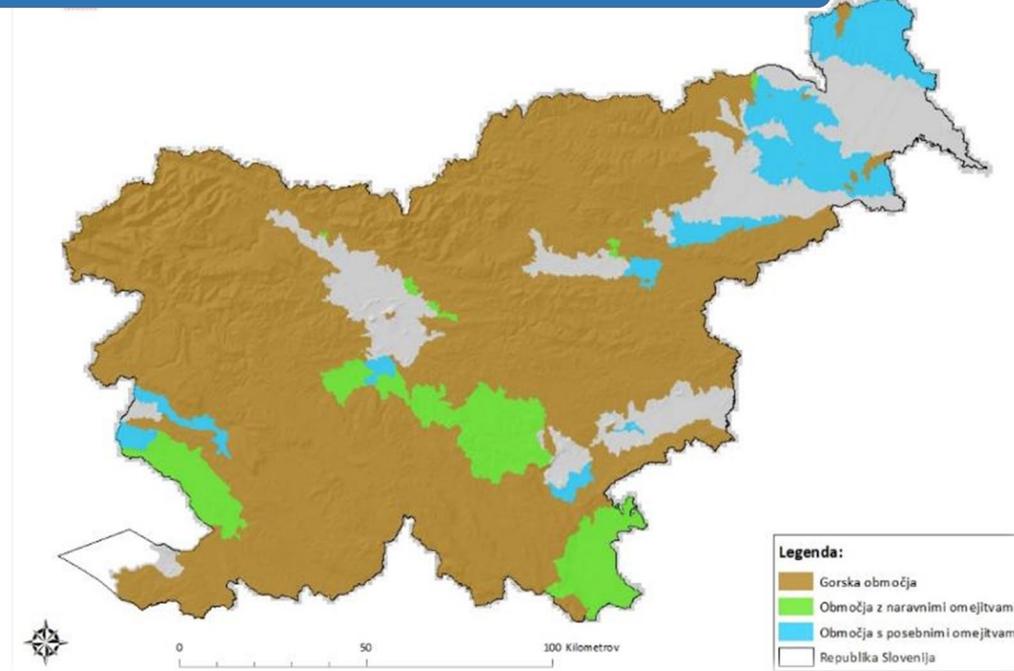


Source: Statistical office of the Republic of Slovenia



LESS FAVOURED AREAS: 76 % of utilised agricultural area (UAA) is located in LFAs that limit possibilities on production orientation of Slovenian farms - use of **grassland prevails**.

LFA coverage – in brown => **MOUNTAIN** areas



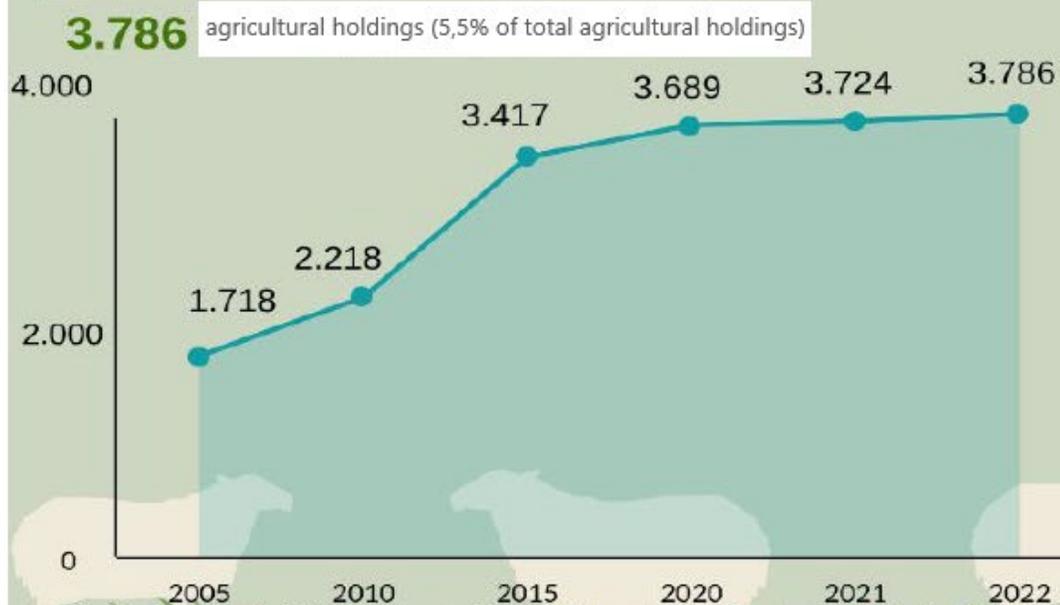
Agricultural areas suited for arable land use are quite limited in SI.

SI organic farming



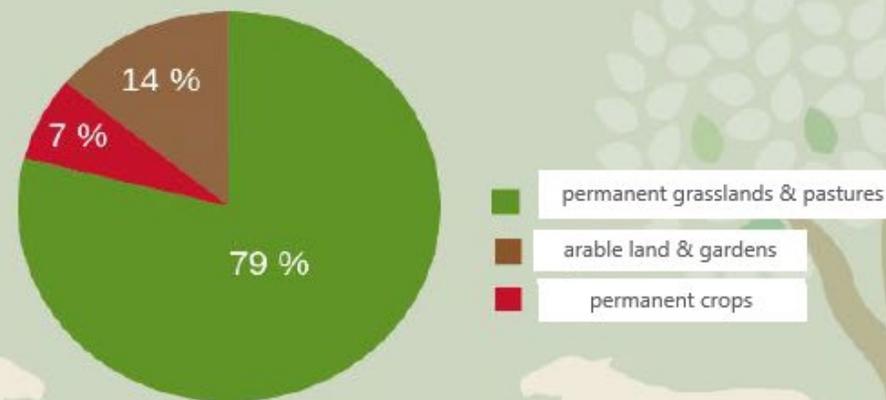
Organic farming

Number of agricultural holdings under organic control



Area of UAA under organic control

53.202 ha (11.1% of total UAA)



Ambition from Green Deal: to have 18 % of all UAA in SI certified as organic.

Nature protection areas

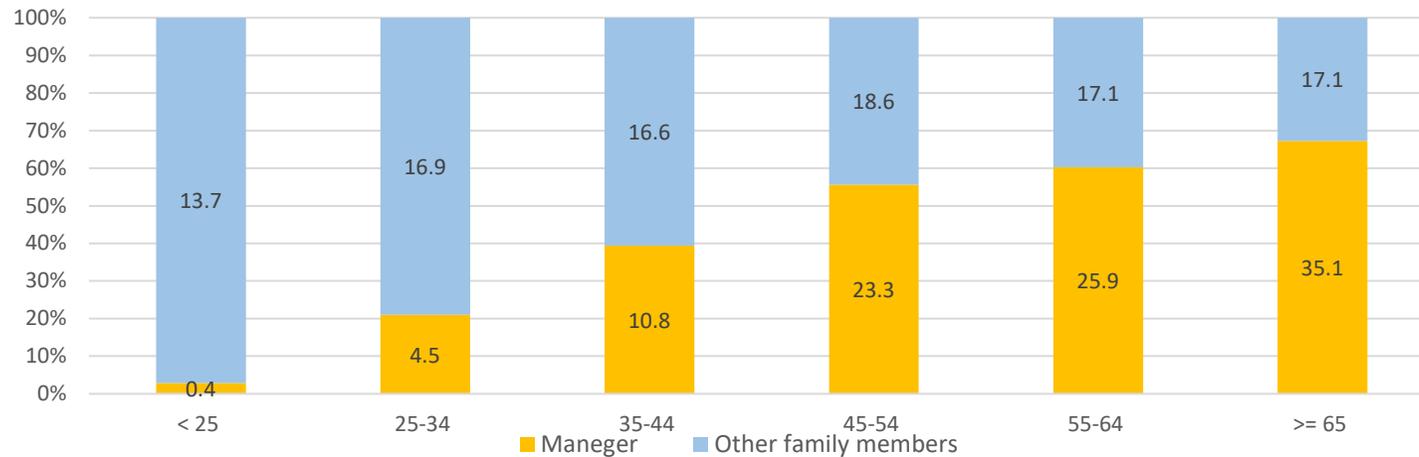
- In 2022, agricultural land covered 18.8 % of nature protection areas of various types in Slovenia.
- 26.3 % of all agricultural land is included in nature protection areas.
- **More than a third of the country's land area has been declared a Natura 2000 site, the largest share of all EU Member States.**
- Natura 2000 contains 45.4% of forests and 23.2% of UAA.



Age and educational structure of the family labour force on family farms

- **Family labour represents more than 95%** of the total available agricultural labour force.
- The share of farm holders is 44%, while the share of other household members is 51%.

Age of farm holders



- The average age of the farm holders is **62 years**.
- In 2020, **more than 50% of holders had only practical experience of working in agriculture**.
- The number of holders with different forms of formal agricultural education is increasing.

CAP Strategic Plan 2023-2027



Overall orientation:

**Sustainable food production throughout the country
and increased self-sufficiency**

Rising food
and energy
prices

Climate and
environmental
challenges



All areas and all agricultural holdings are relevant, regardless of size,
orientation or market orientation



The overall orientation provides answers to food
security and environmental-climate challenges



FOOD SECURITY

Recent crises show the importance of **STRONG AND RESISTANT FOOD SUPPLY CHAINS** and the particular importance of **AGRICULTURE** in times of crisis.



CAP STRATEGIC PLAN 2023-2027 :

- ❑ ensuring the conditions for **resilient and competitive food production and processing**,
- ❑ recognises that **young farmers** are at the centre of the development of Slovenian agriculture,
- ❑ promotes the **integration of actors** within agri-food chains and the improvement of the farmer's position through **collective investments** and other incentives for business integration,
- ❑ lines are drawn up to facilitate easier access to investment support for **small farms**,
- ❑ a particular emphasis on the production of **food with higher added value**, in particular organic production and processing and other products covered by **quality schemes**.



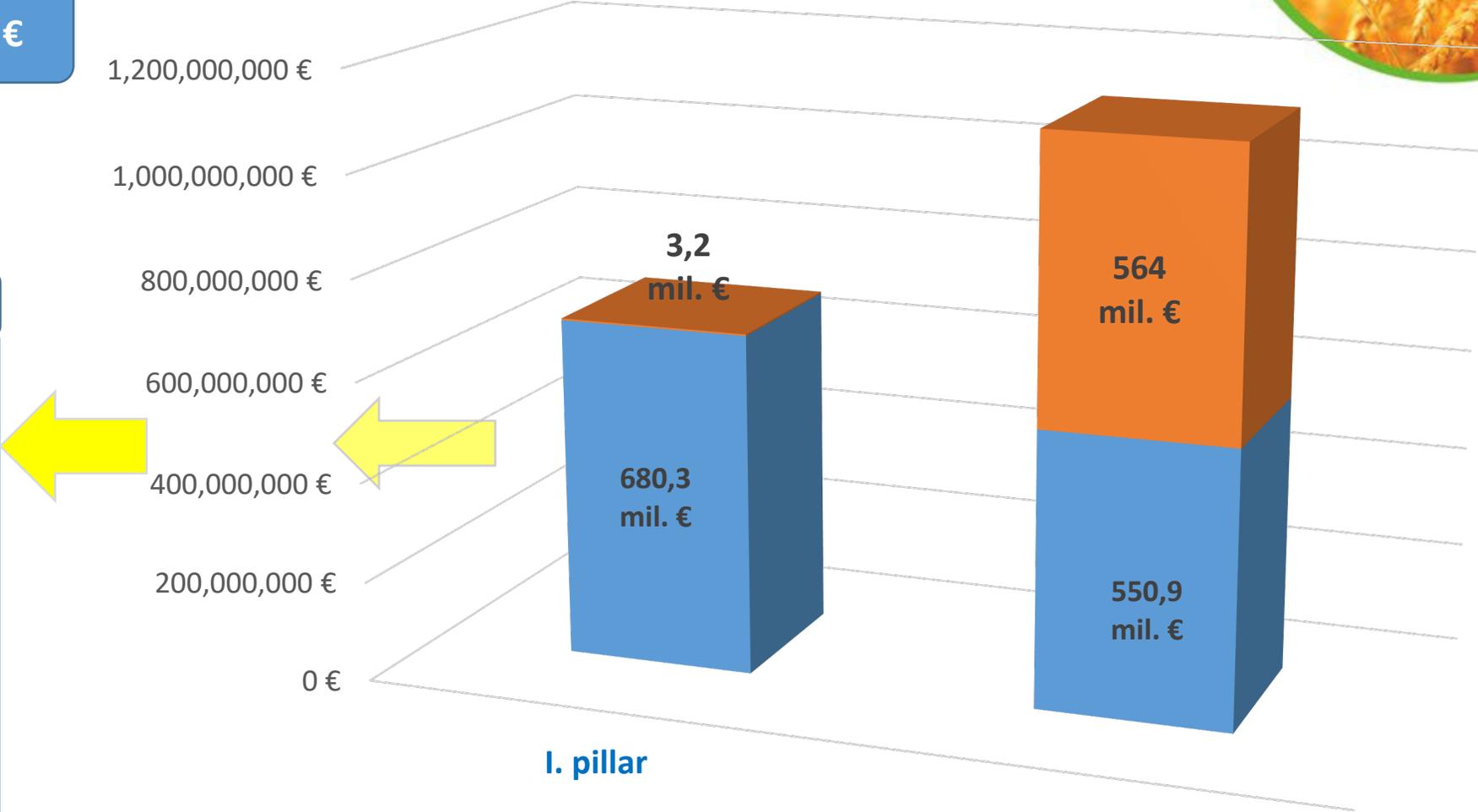
Financial framework CAP SP 2023-2027



= 1,8 bil. €

I. PILLAR

- **Basic income direct payments and direct payments for the environment and climate: 657.647.938 €**
- **Wine sector: 19.396.000 €**
- **Apiculture sector: 6.454.208€**
(3.227.104 EUR + 3.227.104 EUR SI)



■ EU participation ■ SI participation

IK system – data management



Moja eKmetija („My eFarm“)

- Single entry point for farmers, forest owners, producers, processors, operators and other stakeholders to access databases and services in the field of the Ministry of Agriculture, Forestry and Food, SI.
- Access to "your" data.
- Access to data that is public.



IK system – data management



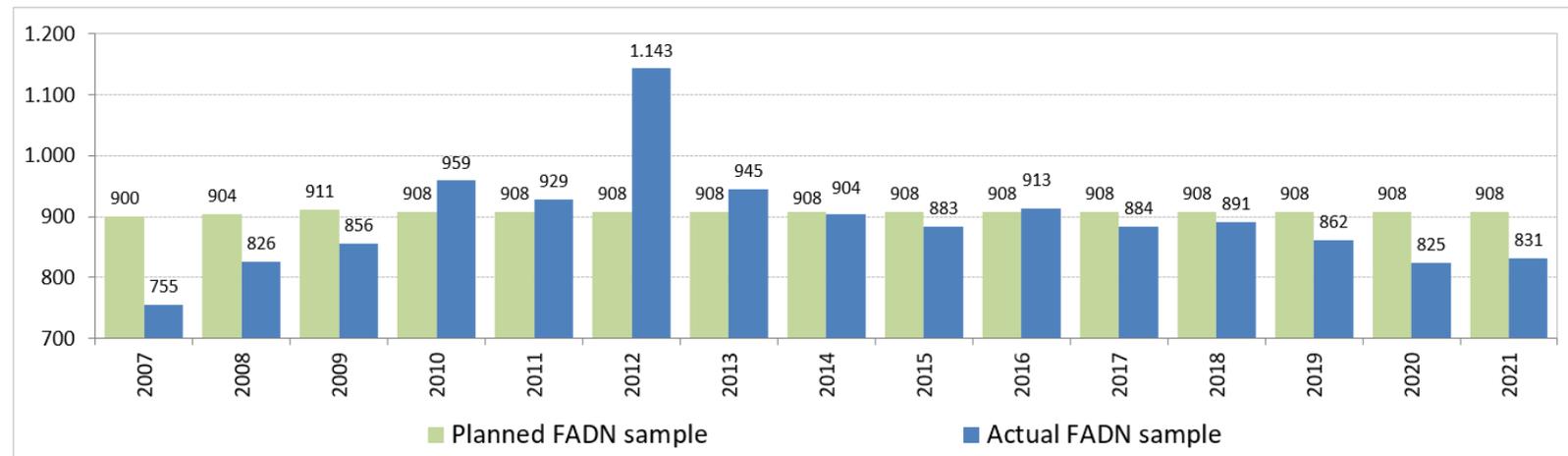
Data warehouse at the Ministry of Agriculture, Forestry and Food

A data warehouse is a digital system that integrates and coordinates large amounts of data from many different data sources.

- The purpose of setting up the data warehouse is to provide tools for data mining in line with the CAP horizontal regulation proposal, as well as tools for simplified production of systemic area reports and monitoring of the progress of the adopted strategies for each area.
- The aim of the establishment of the **MAFF Data Warehouse** is to provide an information platform for business analytics, simplified production of system area reports, system analyses, forecast trends and data mining based on key data sources of the MAFF and its constituent bodies.
- The overall objective of this project is therefore to establish a data warehouse for the MAFF to provide concrete and useful information in real time to managers and decision-makers for future agricultural policy-making, and to adequately train key staff in business analytics.

FADN in Slovenia

- The first beginnings of FADN-like accountancy in Slovenia in 1994; since 2004 harmonized with EU rules; **next year (2024): 30 years of EU-harmonised FADN in Slovenia!**
- The organization of **the FADN network in Slovenia:**
 - Ministry of Agriculture, Food and Forestry: LAO; recruitment of farms, feedback to farms, involved also in data checking and validation, submission to RICA-1
 - Statistical Office of the Republic of Slovenia: preparation of selection plan
 - 2 accounting offices (under regional offices of Chamber of Agriculture and Forestry of Slovenia): data collection, data checking and validation, submission to RICA-1, education of AH and farm extension service
 - Agricultural Institute of Slovenia: analysis of key results, data checking and validation
- **Selection plan: one FADN region, economic threshold: 4,000 EUR SO; sample size:** since 2010 planned sample of 908 AH (FADN population of cca. 41,000 AH), actual sample on average smaller, downward trend in recent years; in past sample supplemented with RD beneficiaries („mandatory“ FADN)
- **FADN data not as much used as it could have been** (for evidence-based policy, farm advisory, research, etc.); „eternal“ problem of very limited and unstable resources, also some quality issues in the past...



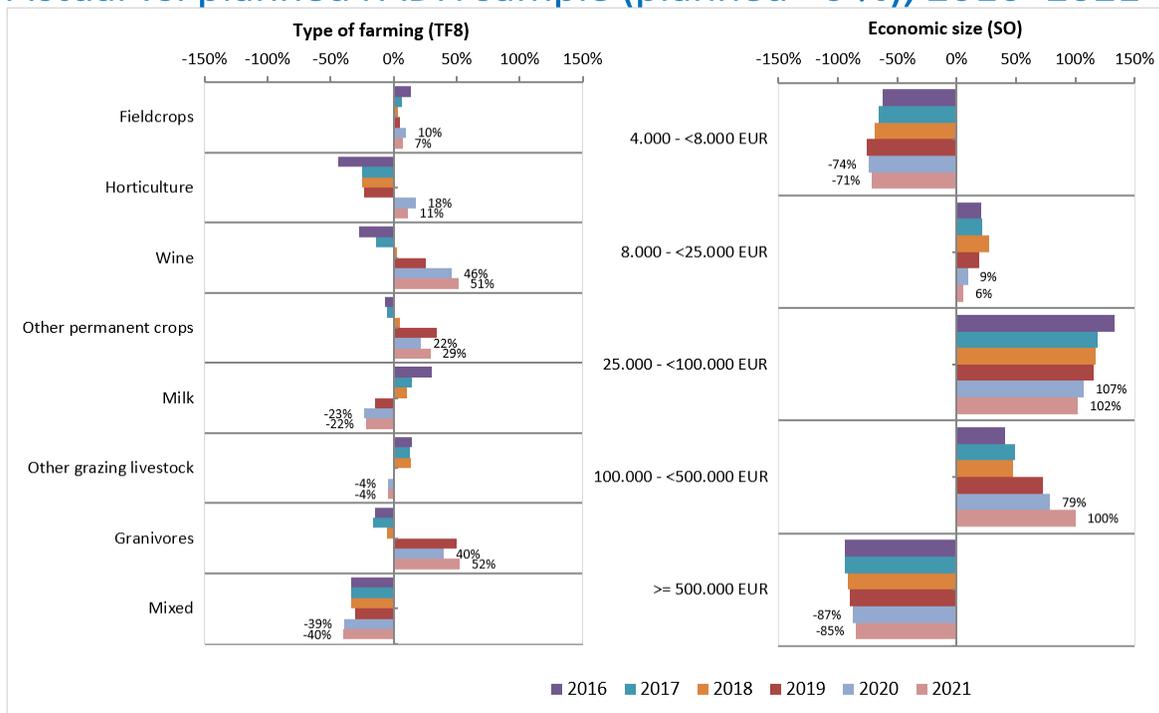
Source: MAFF (selection plans), FADN RICA (SR), own calculations

FADN sample

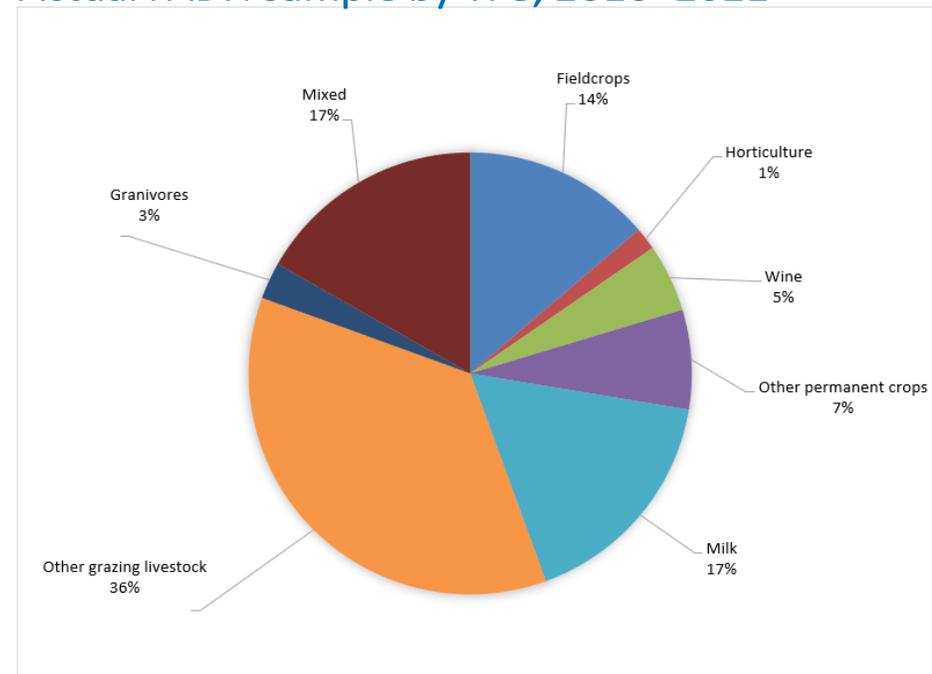


- In the actual sample **predominantly livestock AH**
- **Problems with retaining and recruitment of AH** in certain ESC & types of farming; some effort done in recent years
- Some structural changes in the population, but raising economic threshold not yet recommended
- Implementation of current sampling plan needs to be improved first (more „meta“ data need to be collected), further analysis needed – testing additional criteria, different method of allocation, etc.

Actual vs. planned FADN sample (planned =0 %); 2016–2021



Actual FADN sample by TF8; 2016–2021



Some key FADN results for Slovenia



- Compared to EU average, Slovenian (FADN) on average much smaller in terms of production potential, as well weaker economic performance
- Of course, certain types of farming much bigger and perform much better economically

FADN standard result	(SI) Slovenia						EU27_2020						AY2021: EU27_2020/SI (SI=100)
	2016	2017	2018	2019	2020	2021	2016	2017	2018	2019	2020	2021	
(SE025) Total Utilised Agricultural Area (ha)	10.0	10.1	10.9	11.1	11.4	11.4	31.9	32.4	40.2	40.2	40.4	40.5	354.3
(SE080) Total livestock units (LU)	10.4	10.3	11.3	11.6	11.6	12.1	25.2	25.7	31.1	31.7	32.5	32.3	266.3
(SE010) Total labour input (AWU)	1.29	1.21	1.21	1.23	1.17	1.21	1.48	1.49	1.65	1.67	1.66	1.67	138.0
(SE015) Unpaid labour input (AWU)	1.24	1.17	1.17	1.20	1.12	1.17	1.12	1.13	1.15	1.14	1.14	1.14	97.4
(SE005) Economic size (€'000)	22.6	22.9	25.2	26.0	25.9	26.8	72.0	73.0	96.1	97.1	98.1	98.2	366.4
(SE131) Total output (€/farm)	24,990	25,864	30,190	32,553	31,490	33,883	68,499	72,504	93,022	98,313	98,924	110,546	326.3
(SE600) Balance current subsidies & taxes (€)	7,145	7,640	6,172	6,469	7,317	7,854	10,688	10,980	13,778	14,027	14,491	14,861	189.2
<i>(SE131+SE600) - Total "revenue" (€)</i>	<i>32,135</i>	<i>33,504</i>	<i>36,362</i>	<i>39,022</i>	<i>38,807</i>	<i>41,737</i>	<i>79,187</i>	<i>83,484</i>	<i>106,800</i>	<i>112,340</i>	<i>113,415</i>	<i>125,407</i>	<i>300.5</i>
(SE275) Total intermediate consumption (€)	17,447	17,619	19,396	20,356	20,698	22,490	41,790	42,768	56,271	58,636	59,731	65,329	290.5
(SE410) Gross Farm Income (€)	14,688	15,885	16,967	18,666	18,109	19,247	37,396	40,716	50,529	53,705	53,684	60,078	312.1
(SE360) Depreciation (€)	8,077	8,307	8,601	9,653	9,408	9,841	8,855	8,900	10,953	11,084	11,213	11,490	116.8
(SE415) Farm Net Value Added (€)	6,611	7,578	8,366	9,012	8,700	9,406	28,541	31,816	39,576	42,621	42,470	48,588	516.6
(SE425) Farm Net Value Added (€/AWU)	5,136	6,265	6,917	7,302	7,454	7,746	19,280	21,285	24,043	25,566	25,618	29,112	375.8
(SE420) Farm Net Income (€)	5,396	6,237	6,894	7,874	7,637	8,515	18,006	21,026	25,063	27,365	27,000	32,685	383.9
(SE430) Family Farm Income (€/FWU)	4,346	5,324	5,895	6,562	6,932	7,253	15,608	17,972	21,038	22,941	22,520	27,154	374.4

Source: *FADN Public Database; September 2023*

Challenges of Slovenian FADN in the light FSDN



- **Very limited resources already for the core FADN** (IT, specialized staff, etc. – in the whole FADN network)
- **Catastrophic floods and landslides in August 2023 caused enormous damages in Slovenia**; unfortunate consequence is also that the intended increase of the national funds for the FADN network (including possibility to top-up financial compensation to AH) will most probably not happen soon.
- Some sustainability data already collected, but **„silo“ mentality, weak or non-existent interoperability or too many administrative (legislative) hurdles**; some data not yet digitalized
- **FADN data collection burden almost entirely on farms*** (many implications related to the quality of results); bigger, systemic effort needed to shift this; very limited portion of data is filled into farm returns from other existing databases: typically, not pre-filled for the farms, too late or „in the office“
- **Limited feedback for AH, limited or non-existent farm benchmarking/farm advisory tools**
- **FADN sample: implementation** – revamp needed or problems with recruiting and retaining AH in the sample will grow; in general, AH perceive FADN as another heavy bureaucratic burden; low interest despite being financially compensated; **requesting more data (FSDN) might negatively affect the farmers' willingness to participate in FADN**
- **Great expectations from the EAGF financial contributions** for setting-up implementation costs for the collection of new (FSDN) variables in MS, and from the good practice and knowledge exchange among the MS

* Data reporting „method“ by farms in FADN sample	AY2021 (est.)
On paper	17%
Excel workbook (off-line)	68%
Directly into online program	15%
Total	100%



Thank you for your attention!

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