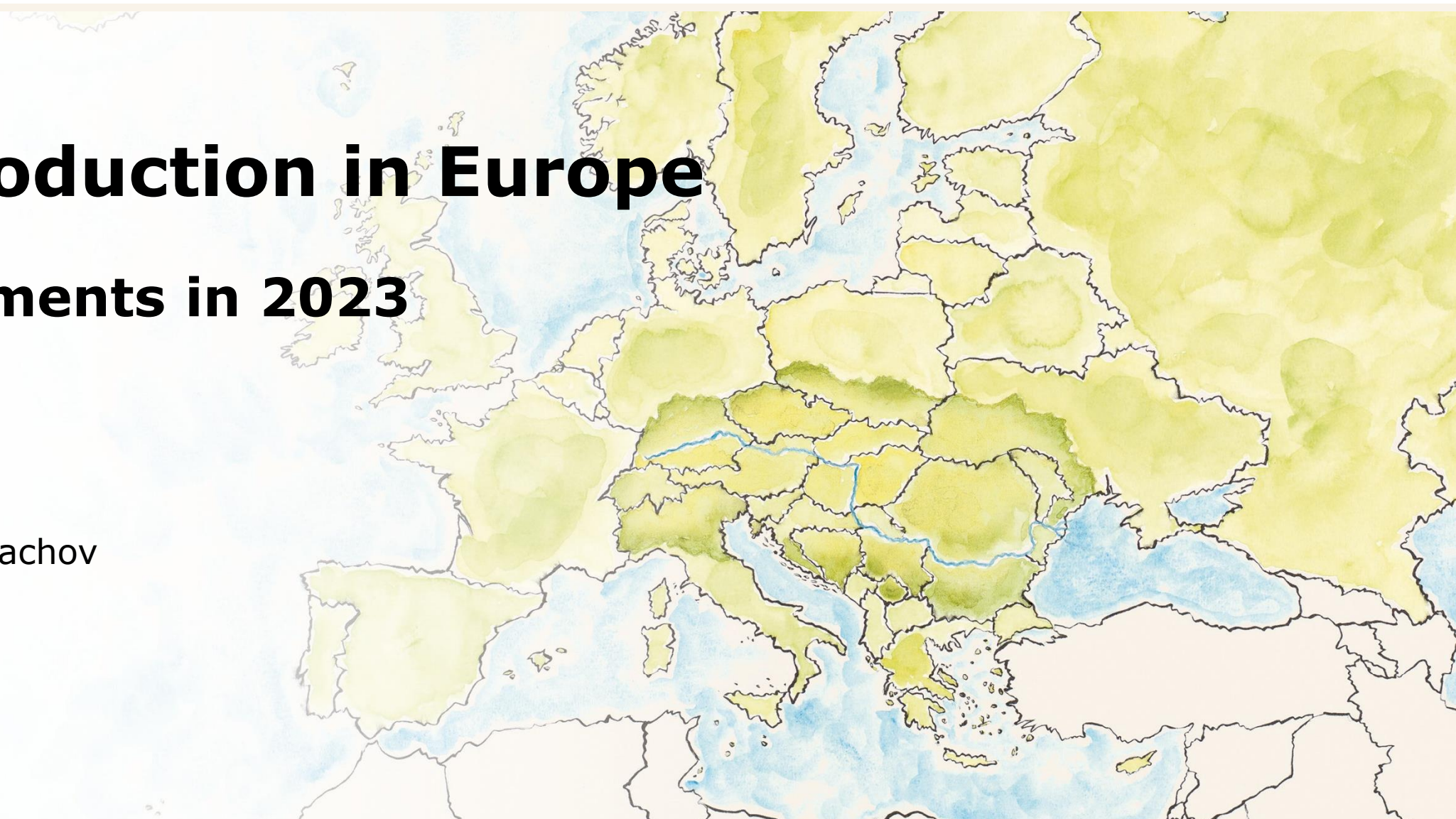


# Soy production in Europe

## Developments in 2023

Leopold Rittler

Volodymyr Pugachov



# Overview

1. Recap 2022
2. Outlook analysis for 2023
3. Long-term outlook
4. Focus on Ukraine, as the biggest soya producer in Europe
5. Influence of the war in Ukraine on the European soya market
6. Expectations for 2023

# Developments in the EU-27: harvest

Total soybean **output** development **in EU-27**  
(2013 – 2022 estimation)



Source: Donau Soja

## Comments:

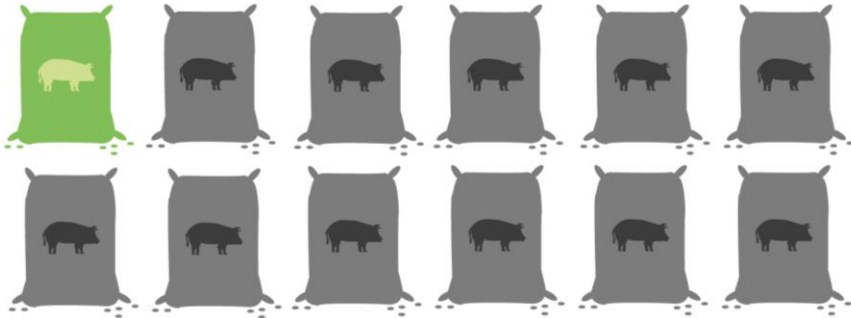
- Production doubled between 2013 – 2018.
- Summer droughts in the last three years in many soy regions affected spring-sown crops (maize, sunflower, soy)
- Soy supply for EU was complemented with volumes from Ukraine



# Self-sufficiency in the EU-27 and Europe

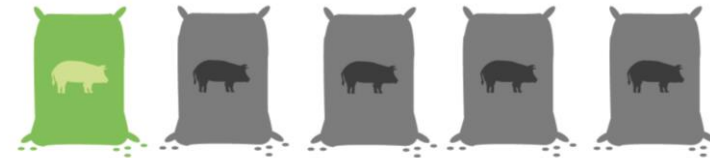
**EU: 8 %**

of soymeal consumption is covered  
by domestic soy production



**Europe: 22 %**

of soymeal consumption is covered  
by domestic soy production



→ Non-EU countries play a significant role in European soya supply

# Country analysis 2022

Soybean area in selected European countries -  
2021 vs 2022 estimate

	1,000 ha	2021	2022	change	
→ Russia*		1,671	1,850	+ 179	+ 10.7%
→ Ukraine		1,390	1,500	+ 110	+ 7.9%
→ Serbia		250	280	+ 30	+ 12.0%
→ Austria		77	93	+ 16	+ 21.1%
→ Croatia		85	100	+ 15	+ 17.6%
→ France		155	180	+ 25	+ 16.1%
→ Germany		34	51	+ 17	+ 49.9%
→ Hungary		63	67	+ 4	+ 7.0%
→ Italy		300	290	- 10	- 3.3%
→ Romania		149	137	- 12	- 8.1%
→ Slovakia		64	68	+ 4	+ 6.3%
Total EU-27		978	1,072	+ 95	+ 9.7%
<b>Total Europe</b>		<b>4,319</b>	<b>4,736</b>	<b>+ 417</b>	<b>+ 9.7%</b>

\*only European Russia  
Source: Donau Soia

**All-time high of soya areas in Europe**

Soybean **output** in selected European countries  
- 2021 vs 2022 estimation

#1

	1,000 tonnes	2021	2022	change	
← Ukraine		3,490	3,732	+ 242	+ 6.9%
← Russia*		2,844	3,420	+ 577	+ 20.3%
← Serbia		549	440	- 109	- 19.8%
← Austria		235	244	+ 9	+ 3.8%
← Croatia		195	200	+ 5	+ 2.6%
← France		455	380	- 75	- 16.5%
← Germany		107	128	+ 21	+ 19.8%
← Hungary		164	127	- 37	- 22.4%
← Italy		880	610	- 270	- 30.7%
← Romania		350	233	- 76	- 21.7%
← Slovakia		174	130	- 44	- 25.1%
Total EU-27		2,657	2,235	- 422	- 15.9%
<b>Total Europe</b>		<b>9,605</b>	<b>9,870</b>	<b>+ 265</b>	<b>+ 2.8%</b>

\*only European Russia  
Source: Donau Soja

**Drought and heat waves impact yields in EU-27  
and results in smaller outputs (right)**

# Outlook EU-27: acreage 2023

Total soybean **area** development **in EU-27**  
(2013 – 2023 forecast)



Source: Donau Soja

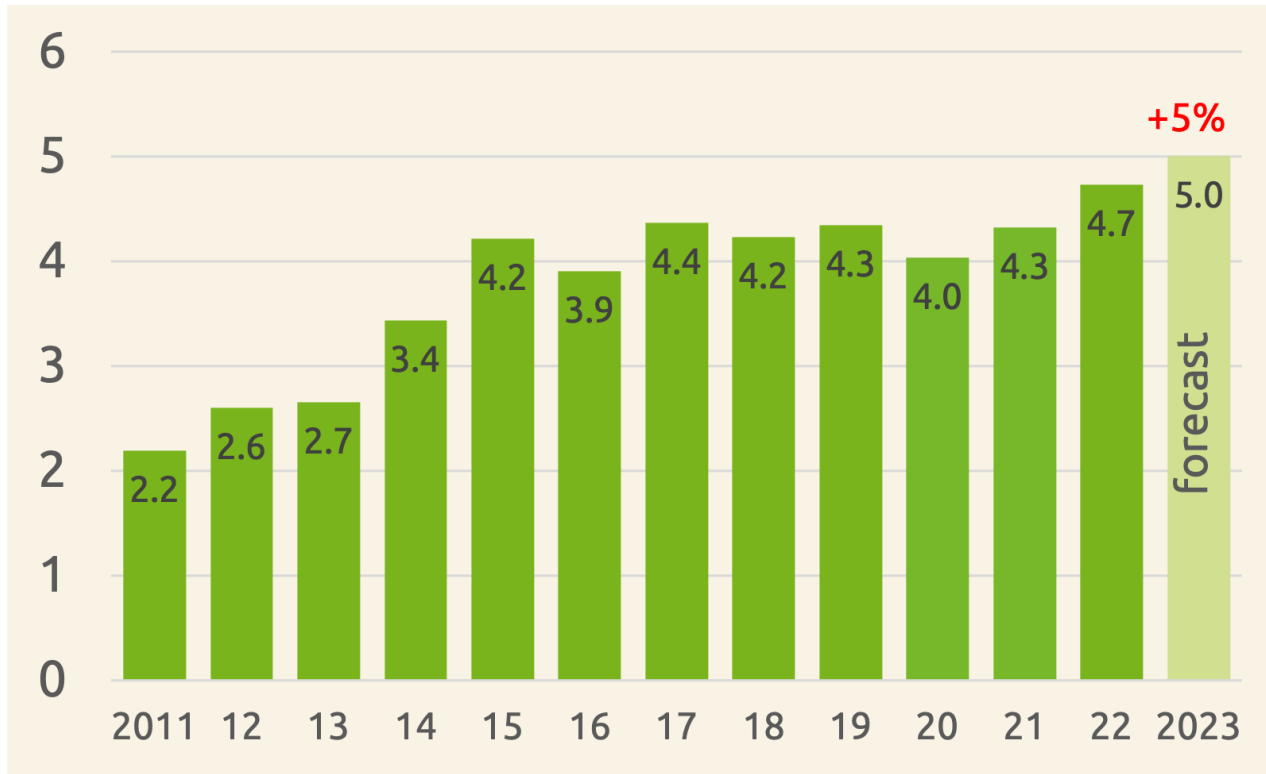
## Comments:

- We expect for 2023 +/- same acreage like in the previous year.



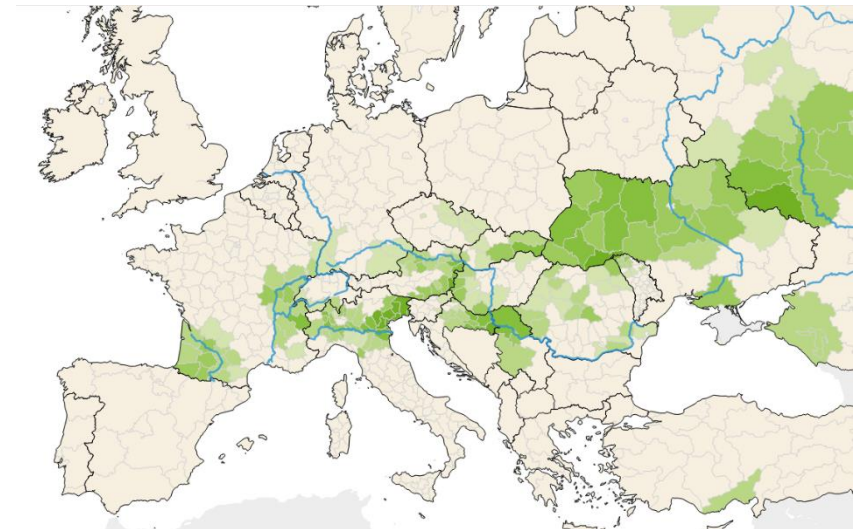
# Outlook Europe: acreage 2023

## Soybean area development in Europe (million ha)

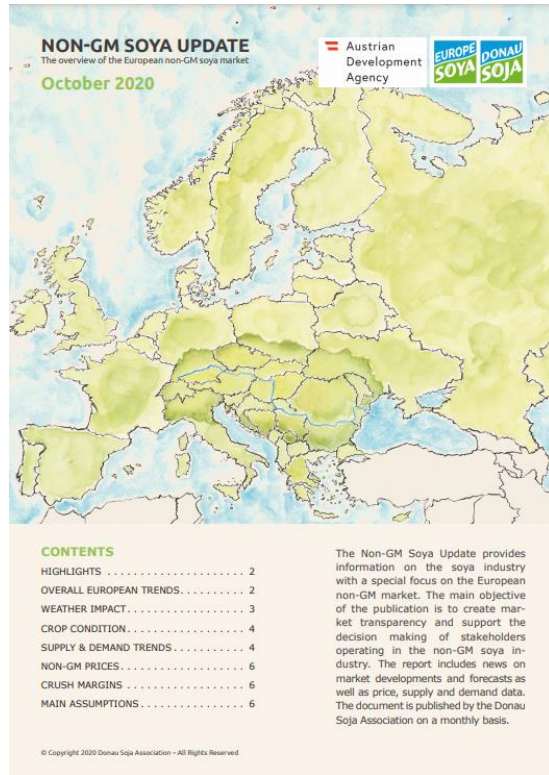


Our first forecast for 2023.

We expect a modest increase of the soya acreage. Main driver is likely to be Ukraine



# More transparency on the European soya market

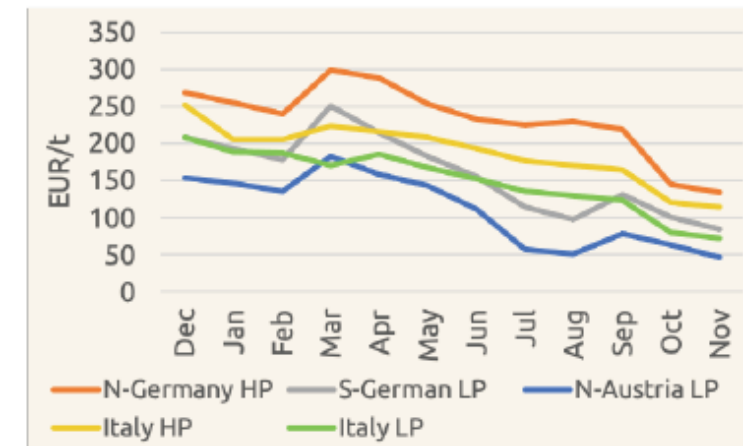


Get the **news about recent developments** on the **Non GM market** including forecasts and results for **European soya cultivation.**



**Bertalan Kruppa**  
Soybean market analyst

**Figure 1** Non-GM soymeal premiums\* in selected EU regions, front-month (Nov 2021 – Nov 2022)



\* premiums are rough estimations. German & Austrian values are calculated on the basis of daily price indications. Italian values are calculated by using the weekly price reports of the Bologna Exchange.  
Source: Donau Soja

The Market report can be ordered via

[marketinfo@donausoja.org](mailto:marketinfo@donausoja.org)



# Decision factors for farmers

## Summer drought in 2022

- Summer droughts in 2022 discouraged farmers to grow spring-sown crops (maize, corn, sunflower, soya). Market insiders expect reduced acreages.
- Response: We can notice a relative increase of crops sown in fall 2023 (winter wheat, winter rapeseed).

## Incentives and drivers

- Common Agricultural Policy of the EU is providing economic incentives for farmers to grow protein crops (peas, fava, soy, etc).
- High fertiliser prices are making soy production more favourable
- High demand for organic soy (~15% of EU soya)

# Why we see a bright future for European soya (1)

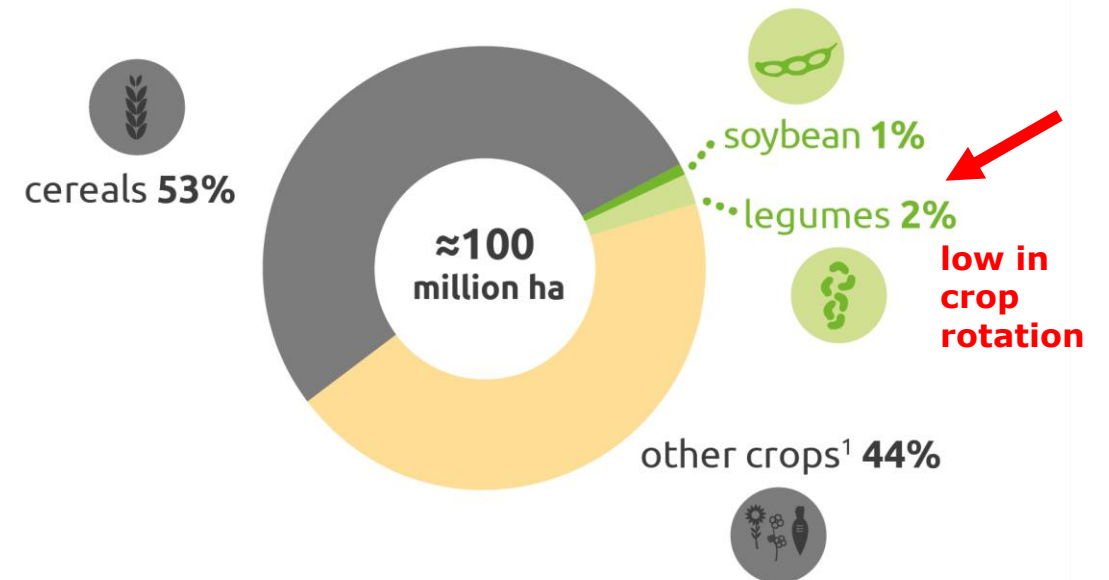
## 1) Favourable national and EU policies

- For boosting the environmental performance of crop production in Europe through more protein crops/soy
- Economic incentives by member states/ CAP
- National protein strategies in several countries fuel the development of protein crop production (examples: FR, NL, DE)

## 2) De-commodification of soy

Various market and consumers needs are favourable for regional soy production (plant-based sector, organic, regional, deforestation-free, non-GMO, etc).

### Cropping of arable land in the EU (2021):



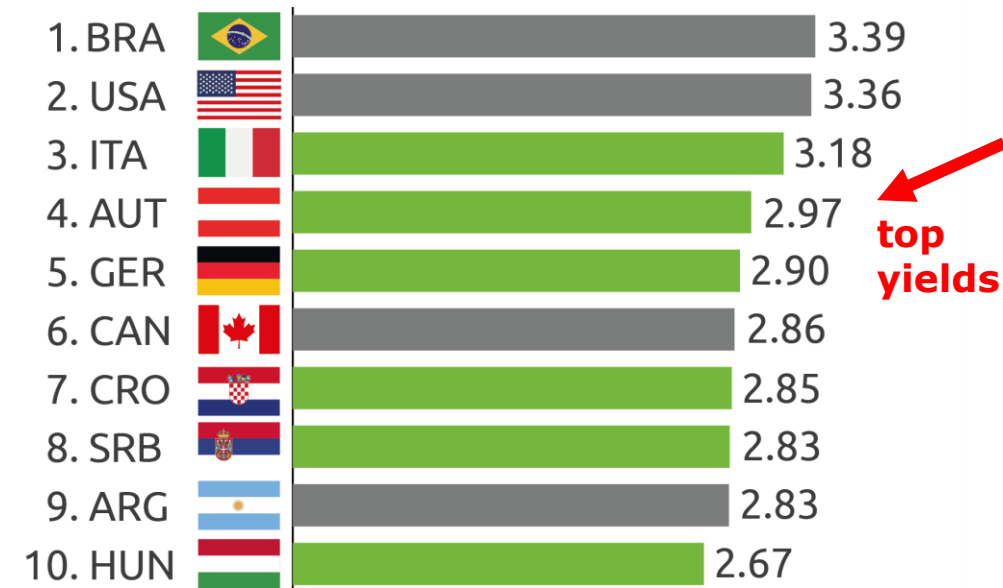
<sup>1</sup> including set-aside and fallow land (area which has been left unplanted for a period of time).  
Sources: Donau Soja on basis DG AGRI data

# Why we see a bright future for European soya (2)

## 3) Soy grows well in Europe

- Top yields in many regions
- New varieties for new soy regions in the northern latitudes (Germany, Benelux, Poland)

Top 10 soya yields\* (t/ha, avg 2017–21):



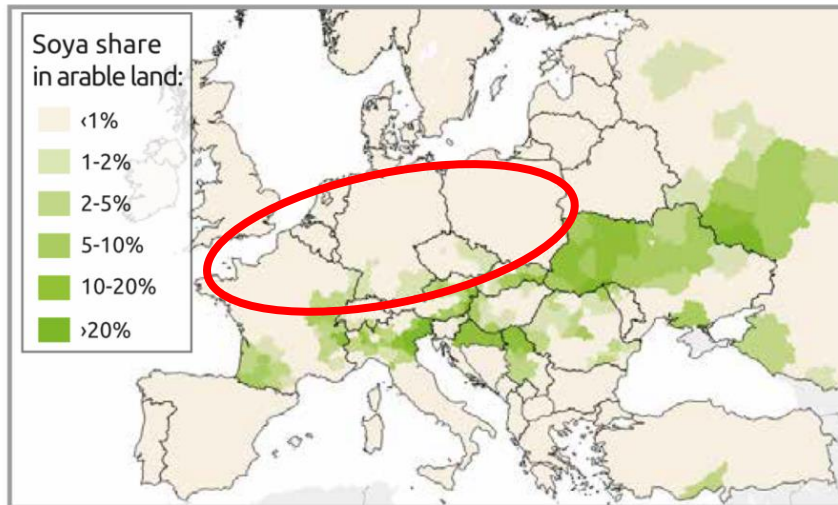
\* the list includes countries with min. 50,000 ha soybean area in 2022.  
Sources: USDA + Donau Soja

# How to realise the potential

## 1) Newcomers in the North

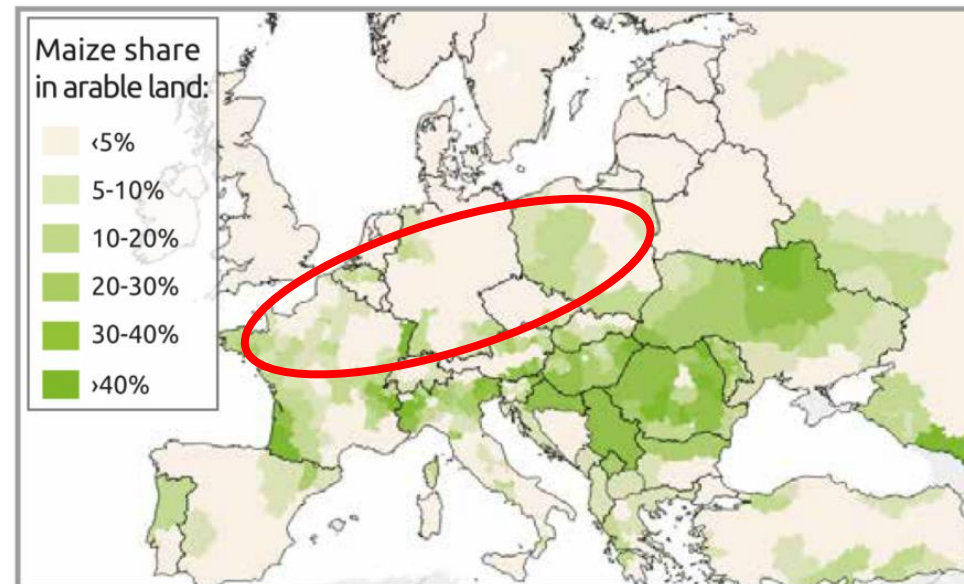
- New crop for many farmers (knowledge, trials, etc)
- Opportunity: improve crop diversity

Soya producer regions in Europe (2021):



Source: Donau Soja

Maize producer regions in Europe (2021):



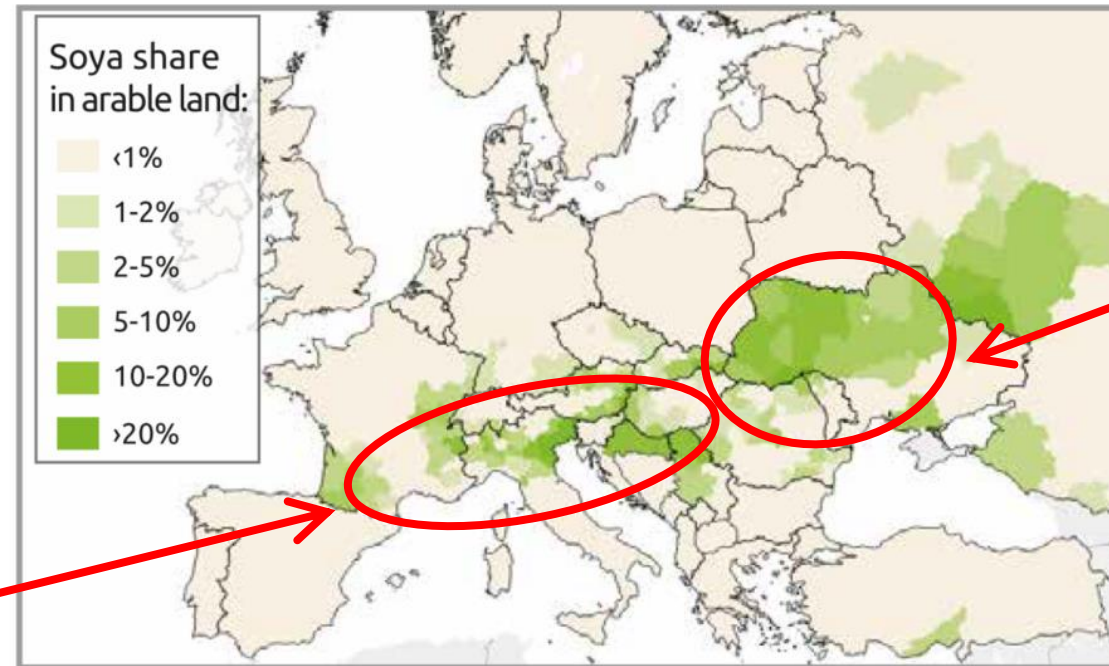
Source: Donau Soja

Soybean suitability map  
of Germany



# How to realise the potential

## Soya producer regions in Europe (2021):



Source: Donau Soja

### 2) Current top-performers

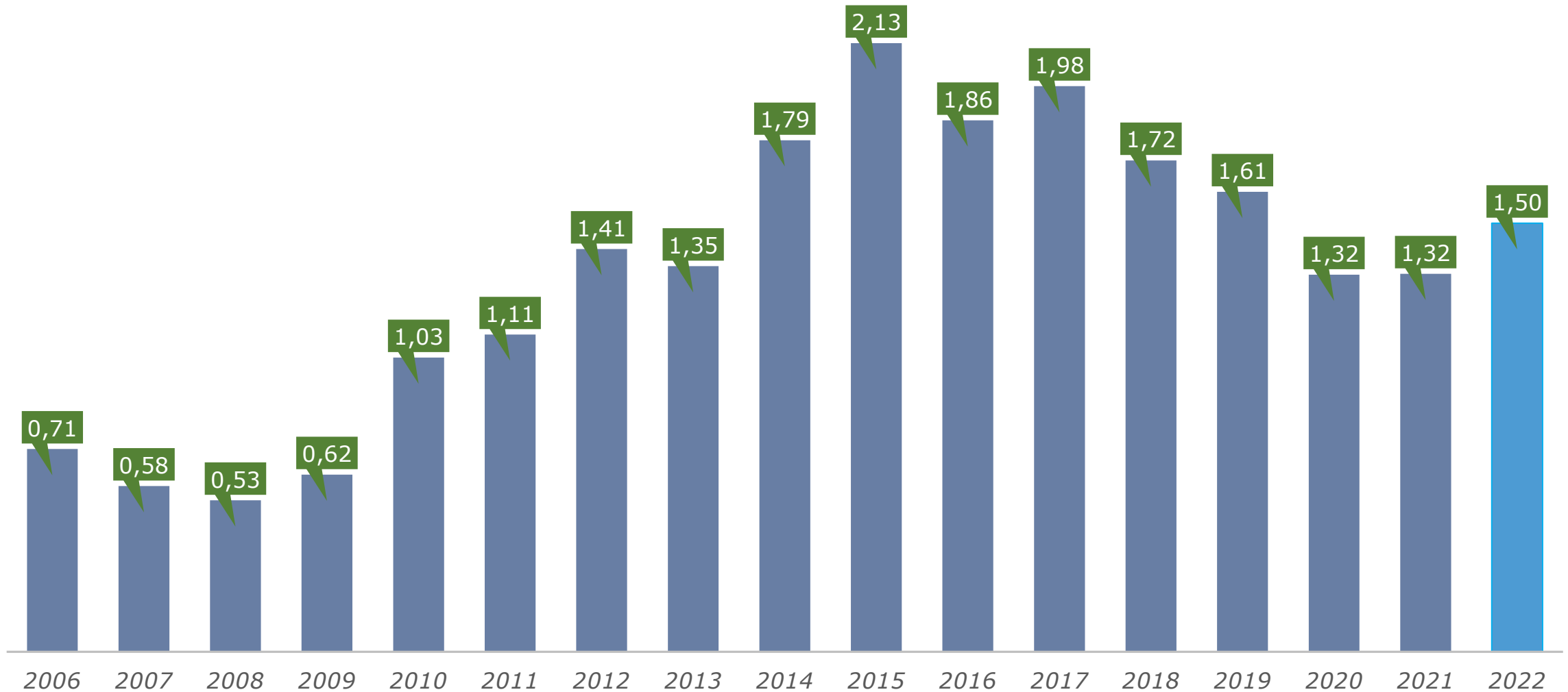
- Need for climate-resilient solutions

### 3) Eastern Europe + yield gap

- Large gap between potential and actual yield
- Need for intervention (DS Academy)

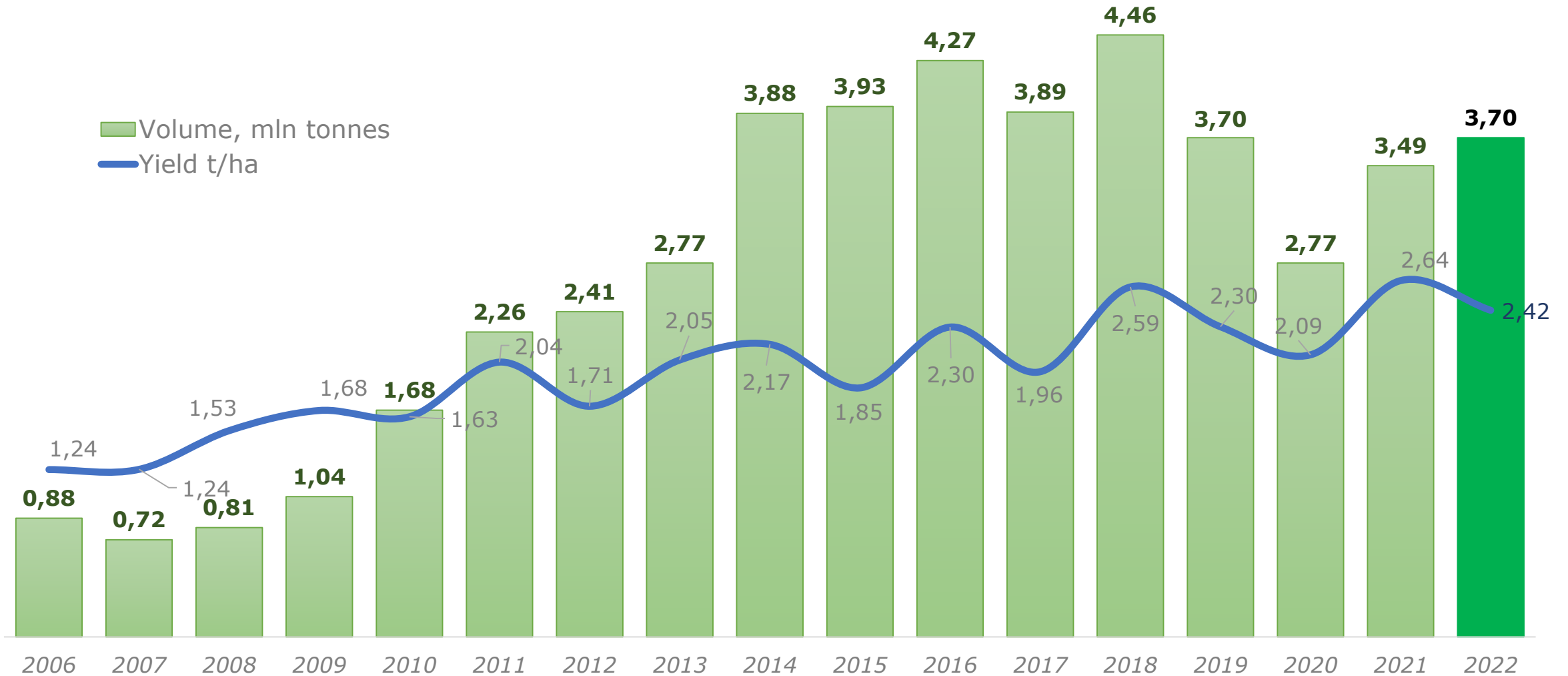
# Soya area, mln ha, Ukraine

*data source: State Statistical Service of Ukraine*

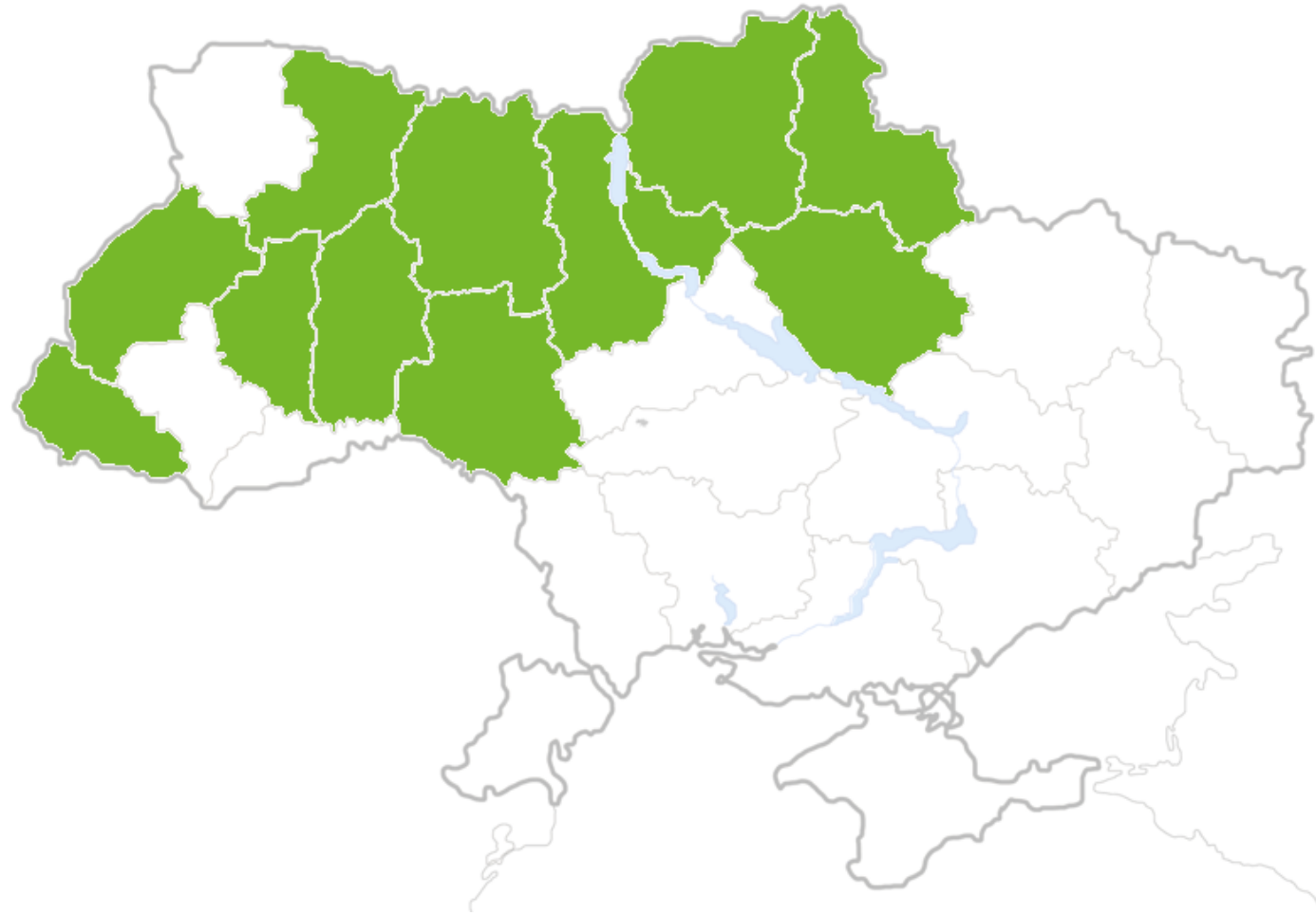


# Soybean volume and yield, Ukraine

data source: State Statistical Service of Ukraine



# Main soya areas in Ukraine






# Ukraine: sowing campaign 2022

- According to the data of the structural subdivisions of the regional state administrations , the planting of spring crops has been completed in the area of **13.4 million hectares** – decrease of about 20%.
- Change in the structure of crops – because of number of factors – the biggest changes concerned wheat, corn, sunflower and soybeans.
- Sowing of winter crops is almost finished on the area of **5.4 million hectares** – decrease of about 40%.



# Harvesting season 2022 in Ukraine

CROP	VOLUME	CHANGE
WHEAT	20.2 mln tonnes (5.0 mln ha)	 - 37%
CORN	26.4 mln tonnes (3.9 mln ha)	 - 33%
SUNFLOWER	10.5 mln tonnes (4.8 mln ha)	 - 37%
BARLEY	5.8 mln tonnes (1.7 mln ha)	 - 41%
SOYA	3.7 mln tonnes (1.5 mln ha)	 + 6%
RAPESEED	3.2 mln tonnes (1.1 mln ha)	 + 9%

# Ukraine is self-sufficient with crops inc. soybeans

- **Ukraine is self-sufficient** with agricultural products including soybeans. Ukrainian agricultural industry is export oriented.
- Under normal circumstances, **75%** of Ukraine's grain production was exported.
- Self-sufficiency ratio **4 times exceeds** the internal consumption.
- Large part of domestically processed soya is **exported as soya meal**.
- Exporting is the matter of normal functioning of the agriculture industry of Ukraine.

# Supply and Demand balance for soybeans, thousand tonnes

	2021/22	2022/23		2022/23 to 2021/22	
		optimistic	pessimistic	optimistic	pessimistic
<b>Starting stocks</b>	49	426	426	x8,6	x8,6
<b>Harvesting</b>	3 515	3 700	3 700	+6%	+6%
<b>Overall supply</b>	<b>3 566</b>	<b>4 126</b>	<b>4 126</b>	<b>+15%</b>	<b>+15%</b>
<b>Internal consumption</b>	1 750	1 900	1 390	9%	-21%
<b>Export</b>	<b>1 390</b>	<b>1 900</b>	<b>1 500</b>	<b>37%</b>	<b>8%</b>
<b>Overall demand</b>	3 140	3 800	2 890	21%	-8%
<b>End stocks</b>	426	326	1 236	-23%	x2,9

# Challenges caused by the war in Ukraine

To support UA producers DS is going to focus on the following:

- trainings related to farming during **limited resources** availability (seeds, fertilisers, fuel etc.);
- activities to **overcome the bottleneck** with export routes from Ukraine caused by military blocking of the Black Sea ports.

E.g. Donau Soja co-organised and facilitated the EU-Ukraine Ministerial discussion on challenges and opportunities of current commodities exports from Ukraine at the **Prague Karlsbourse** on 13<sup>th</sup> April 2022.

At similar discussion with Italian Government at the **Commodities Exchange in Milan** on 6<sup>th</sup> May 2022.



DS supported organisation of **Ukrainian National Stand:**

6<sup>th</sup> *Prague Karlsbourse* on 13.04.2022 (Prague, Czech Republic);

3<sup>rd</sup> *CeMI Commodities Exchange* on 06.05.2022 (Milano, Italy);

5<sup>th</sup> *Szechenyi Exchange Budapest* on 09.06.2022 (Budapest, Hungary);

-15<sup>th</sup> *International Danube Exchange* (Donau Boerse) on 02.09.2022 (Vienna, Austria).

# Export of soybeans from Ukraine, 2022 and Jan – Mar 2023

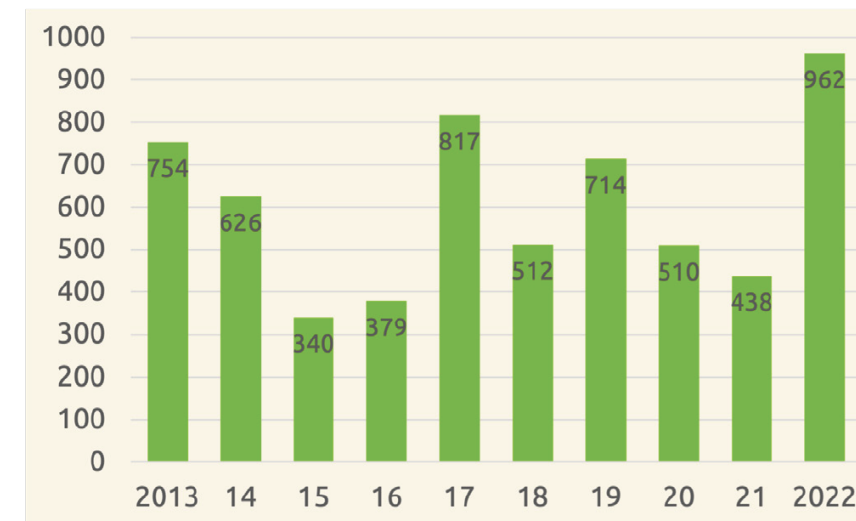
**Crossed the Border, tons** for the date of  
**973,380** 1/31/2023 2/28/2023 3/15/2023

## Border-Crossing in Positions` Breakdown, tons



		Soybeans
2023	January	344,716
	February	401,929
	March	226,735

**Figure 1** Ukrainian soybean export to EU+\*  
1,000 tonnes



\*EU+ includes EU-27, UK, Norway and Switzerland  
 Source: Trademap

# Relevance of Ukraine for soya in Europe

- **Europe** produces around **10 mln tonnes** of soybeans  
= approx. 22 % of Europe`s demand
- 2/3 cultivated in non-EU countries

→ **Ukraine** has the **biggest potential** in terms of **volumes and sustainability**:

- **3.7 mln tonnes** of soybeans produced in 2022  
(export even increased!)
- But challenges with illegal GMOs, hazardous pesticides and climate change + problems  
(e.g. limited resources) due to the war

→ **Protein Partnerships** were developed as a programme to support farmers, pay for certification and analytics; this year 20 partners are producing **around 658.000 tonnes certified sustainable / deforestation & conversion-free / non-GM soybeans**



Sources: Donau Soja

# Relevance of the Protein Partnership programme for Ukraine

## MINISTRY OF AGRARIAN POLICY AND FOOD OF UKRAINE

what interests you? 

[Main](#) / [News](#) / Last year, 3.7 million tons of soybeans were collected in Ukraine

### Last year, 3.7 million tons of soybeans were collected in Ukraine

Posted on March 20, 2023, 3:25 pm

Plant growing

In 2022, more than 1.5 million hectares were sown in Ukraine with soybeans, which is a critical crop for European protein supplies, and 3.7 million tons of harvest was harvested. This is 7% more than last year.

About 658,000 tons of Ukrainian soybeans (17.5% of total production) were certified as meeting the principles of sustainability. That is, it is not genetically modified and is grown on land plots without cutting down forests and changing the target land use, according to the standards of the "Danube Soya" Association. This ensures strict compliance with the EU plant protection system, greenhouse gas emissions reduction and field traceability contained in the new EU requirements for the supply of raw materials at risk for forests and ecosystems. The entry into force of the new EU regulatory rules (EU FECR) is scheduled for 2024.

Such a significant result was achieved thanks to the implementation of the Protein Partnership Program. The program is aimed at stimulating the production of non-GM soybeans in a sustainable way for further deliveries to European countries. Partners invest in agronomic knowledge dissemination activities and certification of farmers and elevators in Bosnia and Herzegovina, Moldova, Serbia and Ukraine.

As emphasized by the "Danube Soy" Association, Ukrainian farmers steadfastly adhere to the principles of sustainability of agricultural production and continue to contribute to global food security.



Print



Tweet

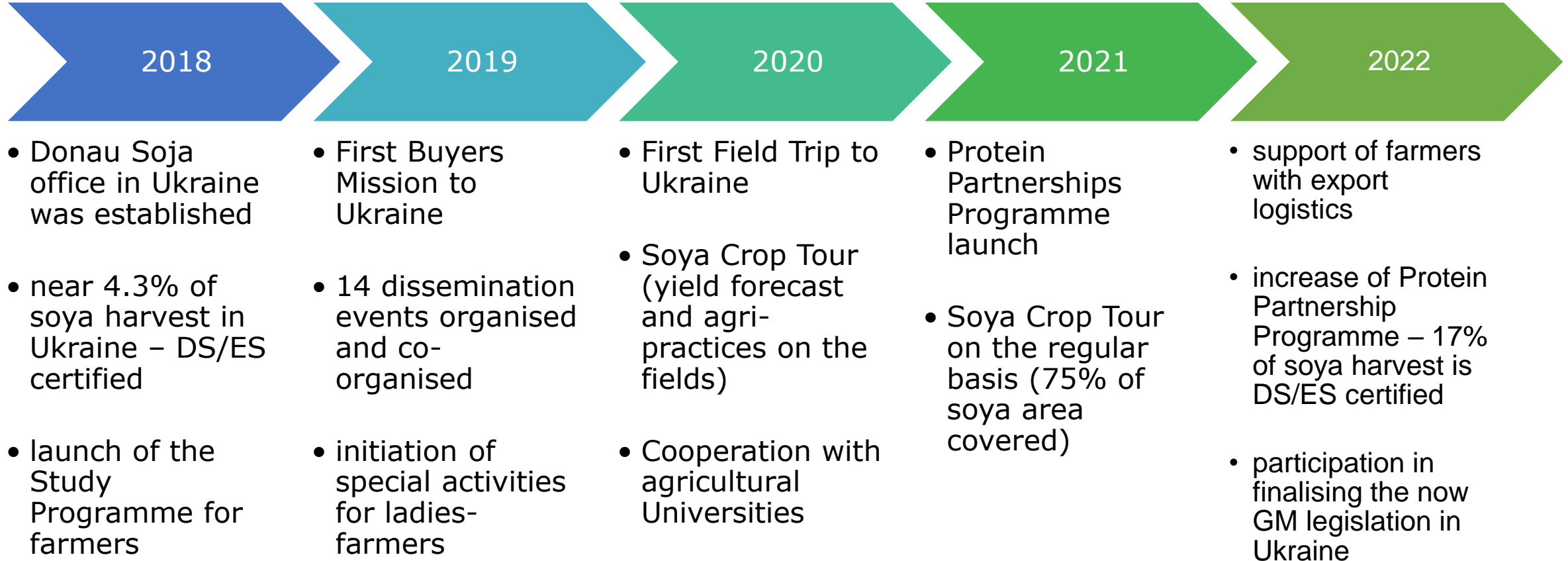


to share

Ministry of Agrarian Policy & Food of Ukraine [published the information](#) about sustainable volumes of soya (harvest 2022) and mentioned the relevance of Protein Partnership programme for Ukraine.



# Donau Soja office in Ukraine



# Protein Partnership programme activities



## The timeline of the Programme development



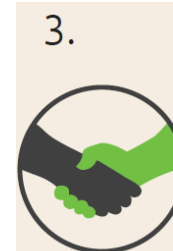
### Knowledge transfer & farmer trainings

Donau Soja conducts trainings for agricultural producers and farmers on sustainable agricultural production approaches and techniques.



### Certification of farmers or cooperatives and agricultural collectors

Donau Soja supports quality management and standard implementation: covering Donau Soja / Europe Soya certification, GM and pesticides analysis costs.



### Activities for value chain building & market uptake

Donau Soja organises platforms and match making activities to improve market access for farmers and cooperatives; as producers of «climate friendly soya» in Europe.

# Soya Yield Gap in Ukraine



Concept is based on definition and measurement of yield potential.

Soya a yield gap in Ukraine is nearly **0.9 t/ha**, representing about 27% of the soybean **yield potential** (rainfed).

This means that on the country level, **additional 1.3 mln tonnes** of soya could be harvested, if best farming practises are applied.

In other words: 10% of European production might be additionally produced only in Ukraine as the conciseness of best farming practices application.

*Yield gap is applicable  
to all field crops*

Sources:

*Global Yield Gap Analysis (by Wageningen University)  
State Statistical Service of Ukraine*

# Issues of sustainable soya cultivation in Ukraine (illegal GM)

As no GM varieties are registered for cultivation in Ukraine, thus growing of GMs is illegal.

Nevertheless, GM seeds and GM cultivation is widely spread in Ukraine. According to market rumours, near 50-65% of soybeans, 10-12% of rapeseeds, and near 1% of corn cultivated in Ukraine are GM.

Agent Green (Romania), with the support of Donau Soja Organisation conducted field investigation in 2018. There were 60 large soya fields sampled in 6 major regions for soya production. The share of GM soya accounted 48% in Ukraine.



# Issues of sustainable soya cultivation in Ukraine (widespread use of hazardous pesticides)

## Pesticides use in soya cultivation:

99 nationally registered active substances for use in plant protection products:

- 2 listed as highly hazardous by WHO (*Abamectin, Tefluthrin*);
- 36 not approved in EU (*alpha-Cypermethrin, Acetochlor, Acifluorfen, beta-Cyfluthrin, Bifenthrin, Glufosinate, Diquat, Dimethoate, Diflubenzuron, Epoxiconazole, zeta-Cypermethrin, Imazethapyr, Imidacloprid, Carbendazim, Clothianidin, Mancozeb, Myclobutanil, Novaluron, Picoxystrobin, Prometryn, Propargite, Propisochlor, Propiconazole, Prochloraz, Spirodiclofen, Thiram, Thiamethoxam, Thiophanate-methyl, Famoxadone, Fipronil, Flumetsulam, Flutriafol, Flufenzin, Chlorimuron, Chlorpyrifos, Cyproconazole*).

***Mentioned pesticides are actively used.***

# Issues of sustainable soya cultivation in Ukraine (widespread use of hazardous pesticides)

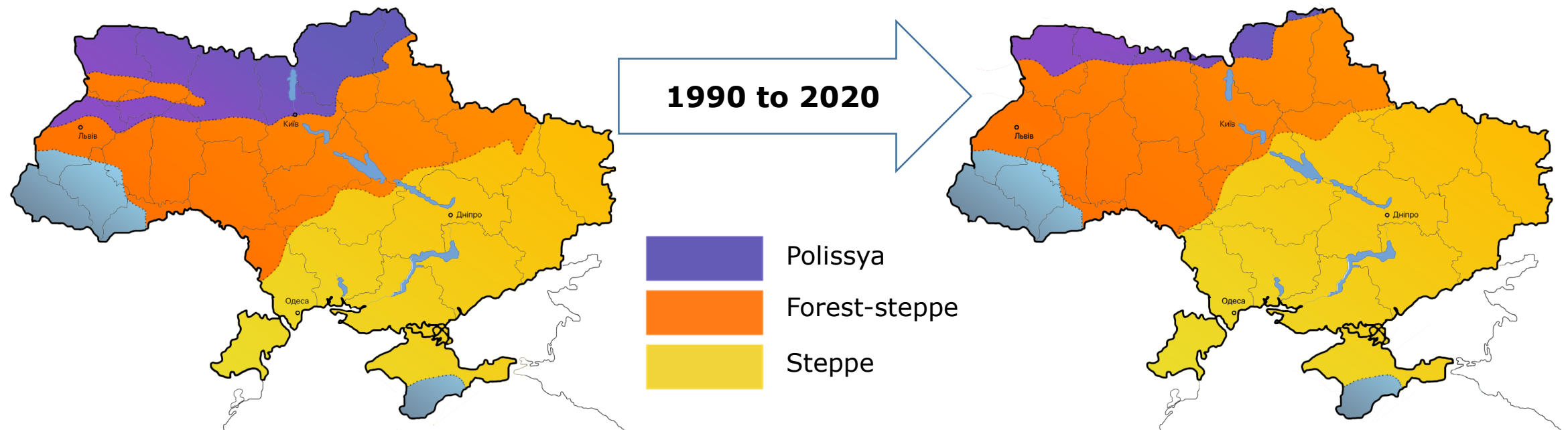
- Ukraine **applied for membership** of the European Union on 28th February 2022. The current Ukrainian government has agreed to implement EU legislation, including areas of food and feed safety, as well as EU regulation on sustainable use of pesticides.
- The European Commission noted the **high level of Ukraine's responses** to the questionnaire on the political and economic criteria for EU membership.



# Issues of sustainable soya cultivation in Ukraine (adaptation to climate change)

The climate conditions in Ukraine changed significantly for the last 30 years. For e.g. seasons 2020 and 2021 were especially untypical:

- dry season 2020 with scarcity of rain resulted in the **harvest loss of around 14%**;
- extra-rainy season 2021 was better for average soya yield in Ukraine, but **lead to partly losses** by certain farmers;
- untypical weather conditions during harvesting 2022 – near a month of **consequent heavy rains**.



# Soya Discussion Club

## Special form of knowledge transfer:

an online workshops for experts, scientists and agricultural influencers in Ukraine.

Experts were focusing on the following topics :

- limited resources on-farm (seeds, fertilizers, fuel etc.).
- proper non-GM seeds selection depending on the climatic region was covered
- benefits of using microbiological preparations as a solution to decrease fertilizer use
- importance and practical examples of the implementation of the integrated pest management (IPM) on the farm
- adaptation of soya production technology to climate change





# Practical on-field studies with agricultural Universities

Donau Soja established specific trials to demonstrate the importance of proper selection of non-GM seeds, sowing density and soya cultivation technology depending on the climate zone. Trial soya plots were established on the premises of two scientific institutions – SNAU (Sumy region), BTsNAU (Kyiv region). The Donau Soja Team supported the technical organisation and coordinated the establishments of the trials

DS wrote special knowledge exchange materials with a focus on the following topics:

- 💡 proper selection of non-GM seeds and cultivation technology to support switch from GM to non-GM technology;
- 💡 steps to on-farm adaptation of technology to EU practices, in particular elimination of hazardous pesticides use.



# Agri-climatic Atlas for soya growing in Ukraine

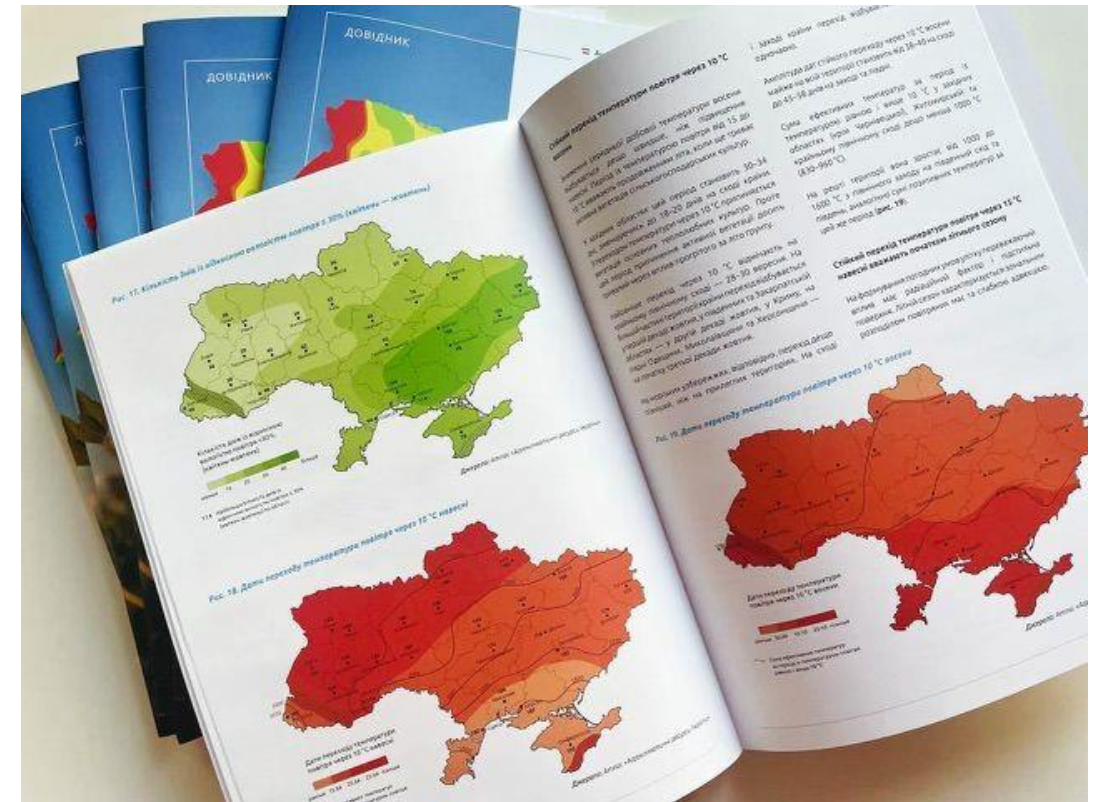
**Agri Climate Atlas provides comprehensive information on climate change, its impacts, and potential adaptation measures in the soya production in Ukraine.**

The Atlas includes data and information on:

- climate projections;
- soya suitability and soil characteristics;
- water resources.

This is helpful for soya farmers to make informed decisions about variety selection, irrigation, and pest management, among others.

We're excited about the potential of Atlas to help Ukraine's soya farmers and policymakers to adapt to the issues of climate change.



# Ukraine – expectations for 2023

CROP	Area	CHANGE
WINTER WHEAT	4.2 mln ha	 - 0.8 mln ha
SPRING WHEAT	0.3 mln ha	 + 0.07 mln ha
CORN	3.6 mln ha	 - 0.5 mln ha
SUNFLOWER	5.6 mln ha	 + 0.5 mln ha
SOYA	1.8 mln ha	 + 0.3 mln ha
RAPESEED	1.4 mln ha	 + 0.1 mln ha

# Summary



Soya has a great potential for Europe.



Farmers even under drought make a choice for soya.



Ukraine has the biggest potential for soya in both – volumes and sustainability.



The Donau Soja Academy was established to close the Yield Gap in target countries.

# Thank you for the attention!

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