



European Soy Monitor

.....

Insights on European uptake of certified, responsible,
deforestation and conversion-free soy in 2021

Prepared by Schuttelaar & Partners commissioned by IDH, RTRS, ProTerra Foundation, Donau Soja, IUCN NL, FEFAC and FEDIOL.

The following authors contributed to the report: Doutzen Wagenaar and Ruth de Jong from Schuttelaar & Partners.

The commissioners of the report are grateful for the input and invaluable data provided by FEFAC members and soy standards.

This report should be cited as follows: IDH et al (2023), European Soy Monitor; Insights on European uptake of certified, responsible, deforestation, and conversion-free soy in 2021; September 2023. Prepared by Schuttelaar & Partners: the Hague, the Netherlands.

Important Notice on Contents – Estimations and Reporting.

All information in this report is derived or estimated using both proprietary and publicly available information. Where information has been obtained from third party sources and proprietary sources, it is clearly referenced. FEFAC cannot guarantee the accuracy of data used provided feed associations. Please view [the European Soy Monitor 2020](#) for detailed methodology and notes on the data limitations and challenges as the methodology in this report remained the same.

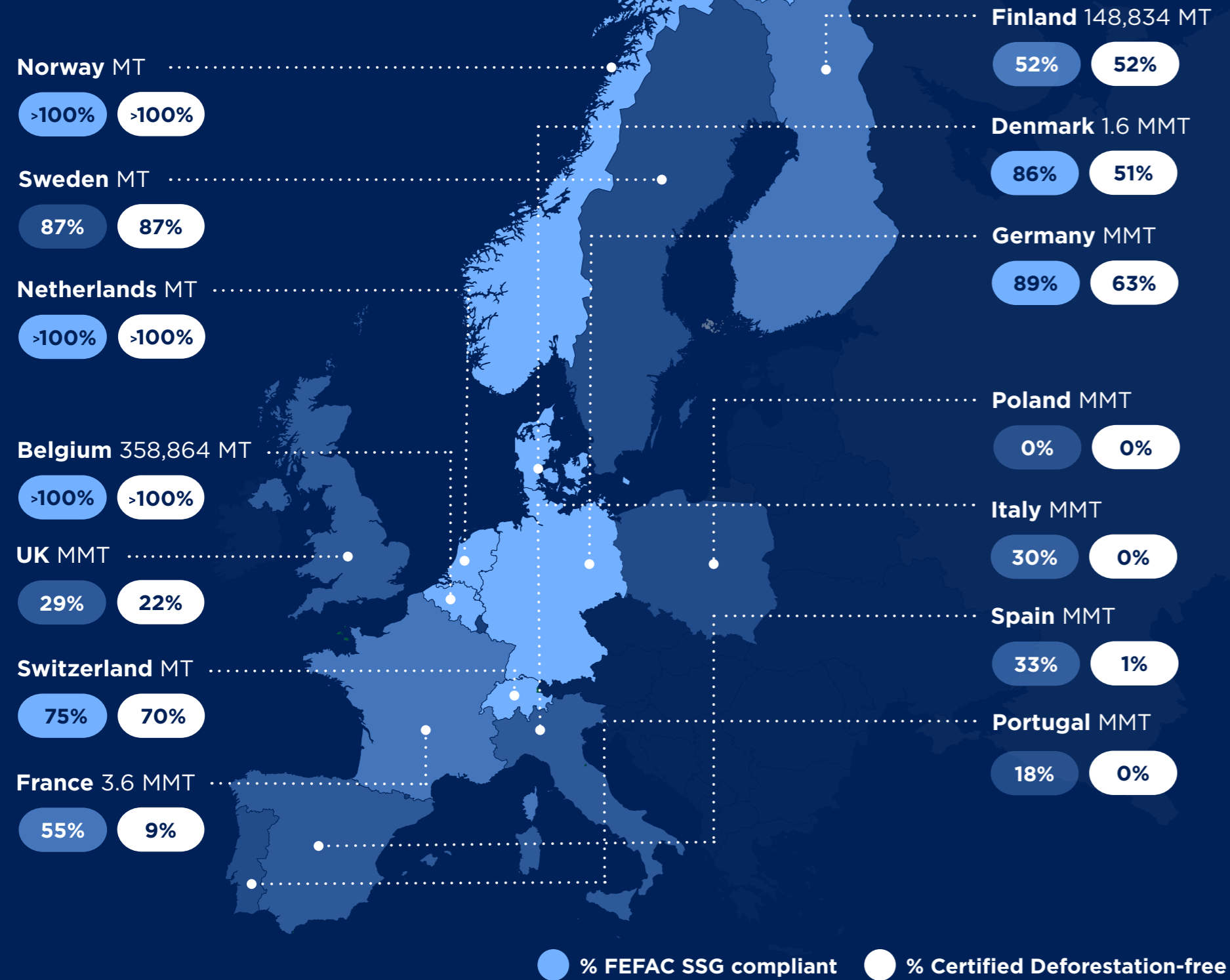
Disclaimer: This report is not reporting about compliance to the European Regulation on Deforestation Free Products (EUDR)



Schuttelaar & Partners is the agency for a healthy and sustainable world.

European consumption of certified responsible and deforestation-free soy in 2021

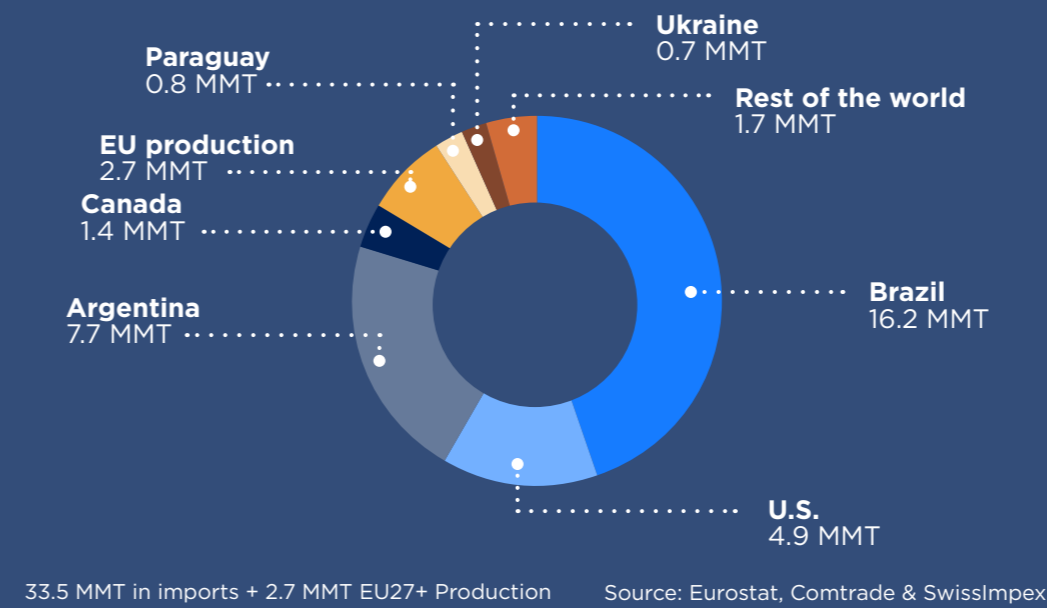
40% of EU27+ soybean meal consumption is certified **FEFAC SSG compliant** and **24%** is certified **DEFORESTATION-FREE***



*For the calculation of deforestation-free we only took into account the volumes under the schemes which have been benchmarked by Profundo (2019) as deforestation-free (RTRS, ProTerra, ISCC+, Danube / Europe Soy, CRS and SFAP- Non Conversion). **Net import of soybeans in soybean meal equivalents 11.94 MMT + net import of soybean meal 17.9 MMT + 2.18 MMT own soy production in soybean meal equivalents. *** Average of the 14 countries in this report.

EUROPE OVERVIEW

Origins of EU27+ soy products

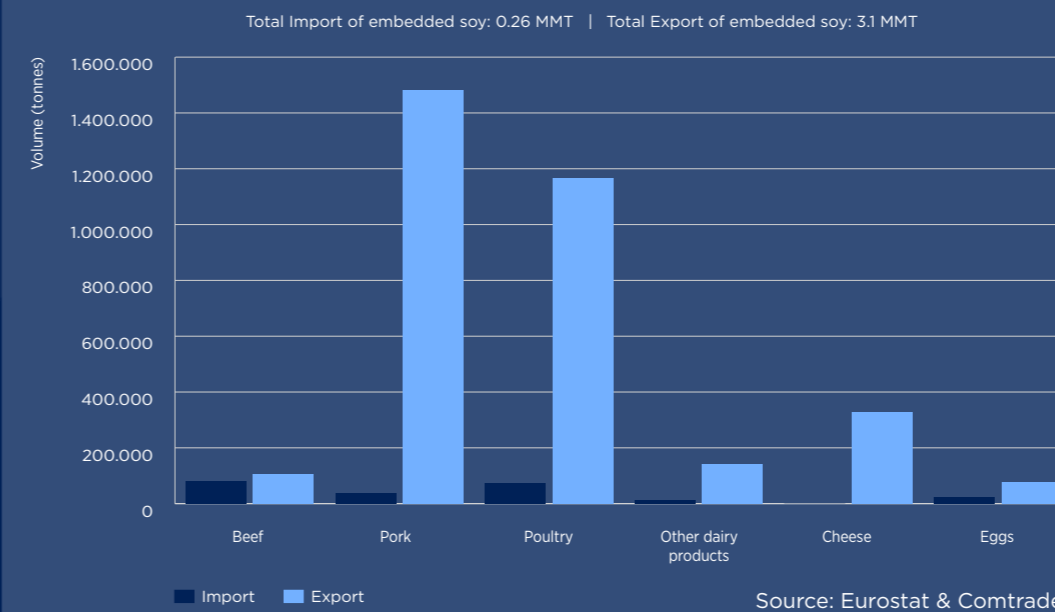


31.91 MMT
Soybean meal available**

3.18 MMT
EU27+ net export embedded soy

28.73 MMT
EU27+ soybean meal consumption

Import and export of embedded soy in EU27+



FEFAC estimated that 93.9% of EU27+ soy imports are from low deforestation risk areas and 42% of soy used in feed was FEFAC SSG compliant***.

FEDIOL estimated that 42% of soybeans bought and processed by EU crushers were FEFAC SSG compliant

GLOBAL OVERVIEW

338 MMT¹
global soy production in 2021

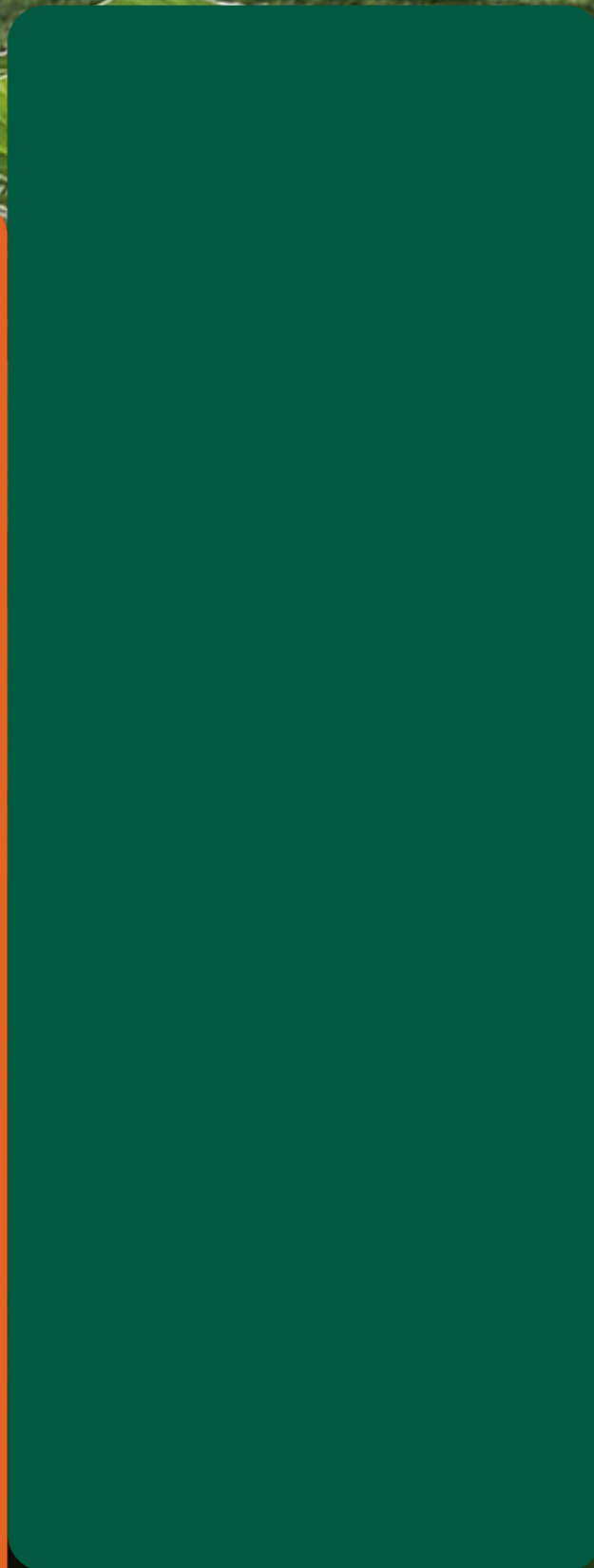
11.5 MMT
is FEFAC SSG compliant soy

129.5 Million²
hectares total production



Contents

Navigate through the report by clicking on your preferred chapter or subchapter.



Preface

Dear reader,

Writing a report in 2023 about the uptake of certified FEFAC SSG compliant and certified deforestation and conversion-free soy in 2021, feels like looking back at ancient history. In 2021, we were in the second year of the covid-pandemic not sure where it would end. In 2023, covid feels far away, but the world drastically changed compared to 2021. In 2022, Russia invaded Ukraine, starting a war on the European continent. Unlike the Covid-pandemic, the war did impact trade in commodities such as soybeans. Geopolitical considerations increasingly impact trade flows, amongst which soy trade. China released an action plan to reduce the use of soy in feed and tensions between China and the United States impact soy trade. New European Union Regulation aiming at deforestation-free supply chains was accepted in 2023. This Regulation will impact the way soy supply chains are organized. From the perspective of today, 2021 seems to be a relatively 'quiet' year.

So why do we as a coalition invest in a report about the uptake of certified FEFAC SSG compliant and certified deforestation and conversion-free soy in 2021? The answer to that question is that we value the continuity of the European Soy Monitor. Since the first edition in 2017, the Monitor was released on an annual basis. It shows the uptake of certified soy, but it does much more. Certified soy is only one of the solutions to sustainable, deforestation and conversion-free soy.

The report shows the main trends and developments in the soy sector in a transparent and neutral manner. No naming and shaming, just the simple facts. That is why we, a coalition of different organizations with a shared commitment towards responsible soy, all see the added value of the Monitor.

That being said we need a disclaimer here. In 2023 all eyes are on the European Regulation on Deforestation-Free products (EUDR). It is important to note that our reference to certified deforestation and conversion-free soy is in no way suggesting EUDR compliant soy. This notion is added to the report a couple of times to create this awareness. However, following the current discussions on EUDR we have tried to be more specific about the chain of custody models that are used for the transition to responsible soy. When the soy footprint is covered by credits supporting responsible soy, that will be highlighted. When soy in the physical supply chain is certified, that will be referred to as well. We hope this adds more clarity about the state of responsible soy in 2021 and we will continue to do so in the Monitors to come.

Enjoy reading the report. We hope you will be able to use the report to have a positive impact on the soy transition.

IDH, RTRS, ProTerra Foundation, Donau Soja, IUCN NL, FEFAC and FEDIOL.



Definitions

Cutoff date

Related to no-deforestation and no-conversion commitments: The date after which deforestation or conversion renders a given area or production unit non-compliant with no-deforestation or no-conversion commitments, respectively.

Deforestation and conversion-free (DCF) soy

Soy that is produced without converting natural ecosystems such as forests, wetlands, savanna, highly biodiverse wetlands, peatland, and high carbon stock land into agricultural acres. In this report we refer to the Profundo benchmark (2019) to calculate DCF soy. A new Profundo benchmark is published in 2023, which acknowledges that more FEFAC SSG compliant standards adopted deforestation and conversion free requirements.

EU27+

EU27+ refers to the European Union (27 member states) plus Norway, Switzerland, and the United Kingdom. The United Kingdom leaving the European Union in 2020 resulted in the switch in this report from EU28+ to EU27+.

Embedded soy

Embedded soy is the 'hidden soy' that is linked to animal-based protein such as meat, eggs, and dairy. When European countries import such products, they also 'implicitly' import the soy that was used to produce these products.

FEFAC Soy Sourcing Guidelines

The FEFAC Soy Sourcing Guidelines (FEFAC SSG) were developed in 2016 to provide guidance to feed companies that want to source responsible soy. Updated in 2021,

the FEFAC SSG now also include a module to identify conversion-free soy standards.

FEFAC SSG compliant soy

Soy that is certified under one of the standards that are positively benchmarked against the 2015 FEFAC Soy Sourcing Guidelines.

Note that a new version of the Guidelines is available (2021 FEFAC Soy Sourcing Guidelines) and an update of the 2021 Guidelines will be released in 2023.

Low conversion risk soy

Soy that originates from countries or regions with a small risk of deforestation or land conversion. The risk categories are developed by FEFAC in cooperation with international experts.

Profundo benchmark

Profundo has assessed all FEFAC SSG compliant standards and concluded that 6 offer deforestation and conversion-free soy. This benchmark is used in the European Soy Monitors to calculate the percentage certified deforestation free soy. In addition, also a reference to the new FEFAC Transparency Tool is made.

Soybean meal available for domestic consumption

The reference volume for the calculation of FEFAC compliant and DCF soy. The available soybean meal for domestic consumption is calculated by summing all soy imports and domestic soy production, subtracting soy exports and adding the net import or export of embedded soy.

Transparency Tool

Created in 2021 along with the new version of the Soy Sourcing Guidelines, FEFAC's Transparency Tool allows companies to identify credible soy standards that offer certified conversion-free soy. In the Transparency Tool, most FEFAC SSG-compliant standards are also considered to offer deforestation and conversion-free soy.



Beef

All frozen, fresh, or chilled meat of bovine animals (HS 0201 and HS 0202)



Pork

All frozen, fresh, or chilled meat of swine (HS 0203)



Poultry

All frozen, fresh, or chilled meat and edible offal of poultry (HS 0207)



Eggs

Birds' eggs and dried eggs (HS 0407 and HS 0408)



Cheese

All cheeses and curds (HS 0406)



Other dairy products

All kinds of milk, cream, buttermilk, and whey products (HS 0401-HS 0405)

1 Trends and developments in the soy sector

Little remains so constant as the appetite for soybeans, for food, feed, fuel and industrial purposes. In the second year of the world-wide covid-pandemic, soybean trade remained relatively unaffected. Brazil and the United States continue to be the world's biggest producers and China by far the biggest soy consuming country. European soy production remains rather constant over time. Conversion of natural ecosystems in soy production countries also remains high. It becomes more apparent that multiple solutions in supply chains and landscapes are needed to secure sustainable soy production and protect important ecosystems such as the Cerrado and Gran Chaco.

1. Trends and developments in the soy supply chain

1.1 The soy market in 2021

In 2021, the COVID-19 pandemic continued to significantly impact lives of people and economies and societies all over the world. Although the pandemic negatively impacted business, later assessments of the effects of COVID-19 on trade flows show that the effect for the majority of food and bulk agricultural commodity sectors, such as soy, remain constant⁴. The main soy production and consumption patterns don't show big deviations from previous years.

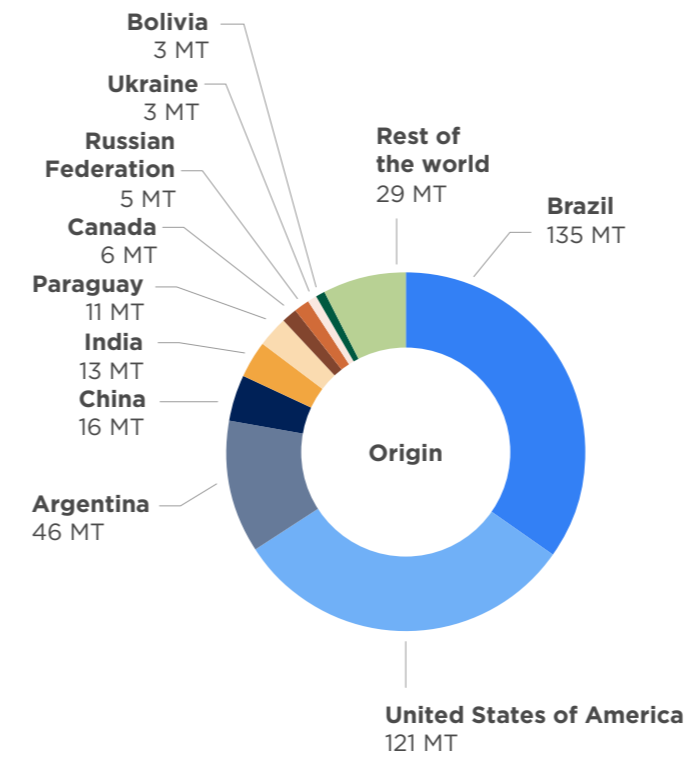
1.1.1 Global soy production

Global soy production grew in 2021 to 388 million tonnes. The area used for soy production grew from 127 million hectares in 2020 to 129.5 million hectares in 2021. Figure 1 shows that Brazil continued to be the world's biggest soy producer, followed by the United States and Argentina. China is a relatively big producer, but its soy consumption far exceeds its production. Russia and Ukraine are the main soy producers on the European continent. Countries in the European Union play a modest role in world's soy production.

1.1.2 Global soybean imports

Figure 2 and 3 show the main destinations for soy. China is the biggest soy consuming country, followed by the European Union. China especially imports vast amounts of soybeans, over 95 million tonnes in 2021. Although the demand for soybeans from China will continue to be large in the future, the country is in search of ways to reduce the use of soybean meal in feed⁶. The European Union imports both soybeans (18 million tonnes) and soybean meal (25 million tonnes).

Figure 1 World soybean production in tonnes in 2021



European National Soya Initiatives (ENSI)

The ENSI platform brings together European National Soy Initiatives advocating for sustainable soy production. Its vision is that by working together within ENSI, National Soya Initiatives (NSIs) can reach their own goals faster and scale up their individual impact. By enabling the exchange of knowledge and good practices between NSIs, like-minded multi-stakeholder initiatives and knowledge partners, ENSI believes it can accelerate the uptake of deforestation and conversion-free, sustainable soy.

Website: ensi-platform.org

Figure 2 Main soybean importing countries in 2021 (FAO⁷)

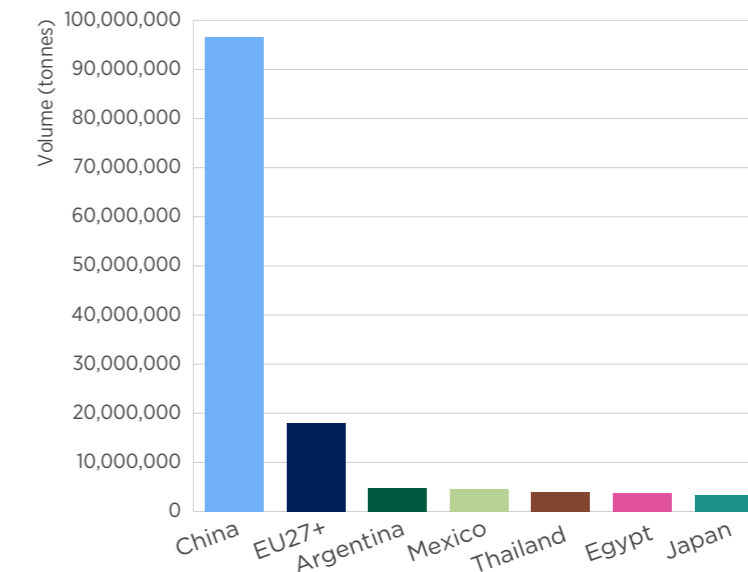
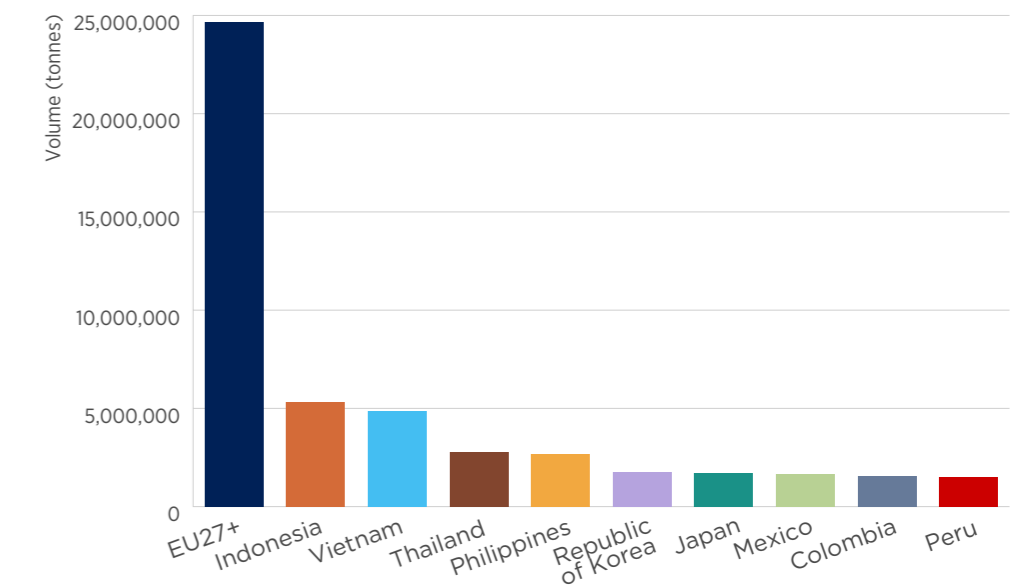


Figure 3 Main soybean meal importing countries in 2021 (FAO⁸)



1. Trends and developments in the soy supply chain

1.2 Trends and developments in soy production regions

In 2021, conversion of important ecosystems in soy producing regions continued. Deforestation in the Amazon peaked, land conversion in the Cerrado grew and the Gran Chaco remains highly threatened. The destruction of these ecosystems is not always (directly) linked to soy production, forest fires, mining, (illegal) logging and livestock keeping, amongst other economic activities, also play their role. The fact that these environmental challenges are supply chain overarching, emphasizes the need to also look for solutions at landscape level.

1.2.1 Amazon

In 2006, the Amazon Soy Moratorium was signed as an agreement between soy traders not to buy soy from farmers in the Amazon that deforested their land after 22 July 2008 (the reference date of the Forest Code). Rural properties that are not in compliance with the Moratorium are excluded from the soy trading and financing processes by the signatories of the Moratorium. As can be seen in Figure 4, the Soy Moratorium had a significant effect as deforestation decreased from 2005. However, since 2013 deforestation has been increasing. Both forest fires and economic activities resulted this year in a loss of Brazilian Amazon Forest. According to the National Institute for space research (INPE), 1.1 million hectares of primary forest were lost to deforestation and an additional 293.000 hectares to forest fires^{9,10}. Figure 4 shows the development of deforestation since 2000 using INPE data. Deforestation in 2021 was the highest since 2017 and scientists fear that a tipping point is nearby for the Amazon Forest with devastating consequences for the ecosystem itself but also for global climate and biodiversity^{11,12}.

1.2.2 Cerrado

INPE also monitors conversion in the Cerrado biome. In 2021, land conversion increased slightly compared to 2020. Maranhão, Goiás, Bahia and Mato Grosso were the states with the highest conversion¹³. Like for the Amazon, scientists warn for the larger effects of conversion of this ecosystem especially in relation to the countries water supply¹⁴.

Figure 4 Deforestation of the Legal Amazon between 2000 and 2021 – INPE data

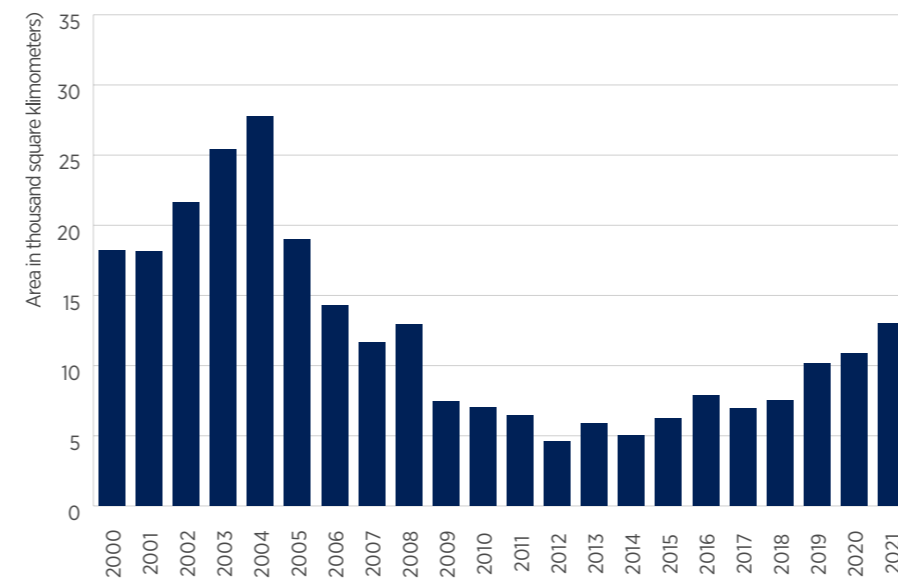
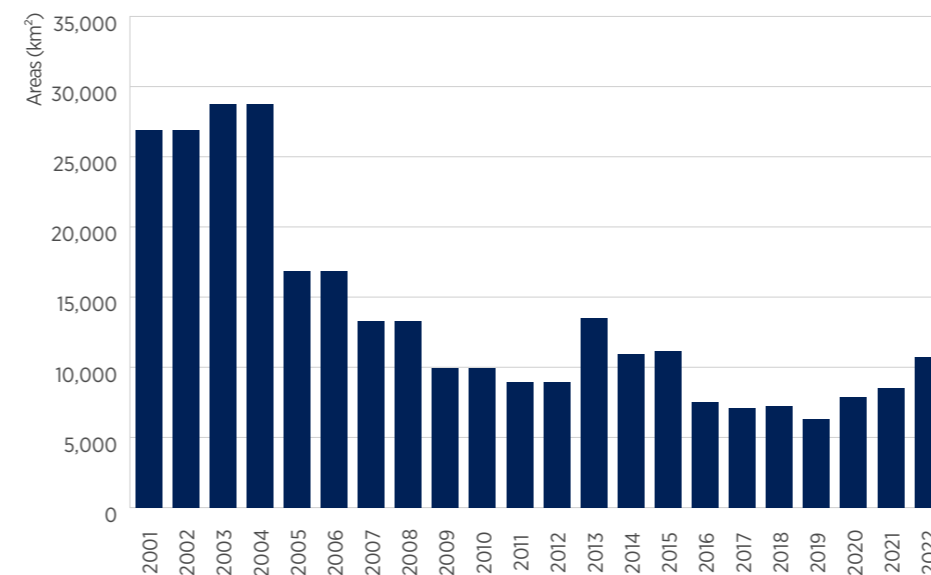


Figure 5 Conversion of the Brazilian Cerrado between 2001 and 2022 – INPE data



UK Soy Manifesto

Inspired by the French Retail Manifesto that was launched in November 2020, British retailers signed a collective industry commitment in 2021 to work on physical deforestation and conversion-free soy with 2025 as the target date. The 27 signatories represent 60% of all soy bought in the United Kingdom on an annual basis.

The commitment concretely includes the following five principles:

- > Set a deforestation and conversion-free commitment with a cut-off date of January 2020 or earlier.
- > Ask direct suppliers to adopt and cascade the same commitment
- > Integrate Manifesto commitments within direct supplier commercial contractual requirements, and support compliance
- > Publicly disclose progress
- > Encourage harmonized monitoring, verification, and reporting

On the [website](#) of the Manifesto all latest updates can be found.

1. Trends and developments in the soy supply chain

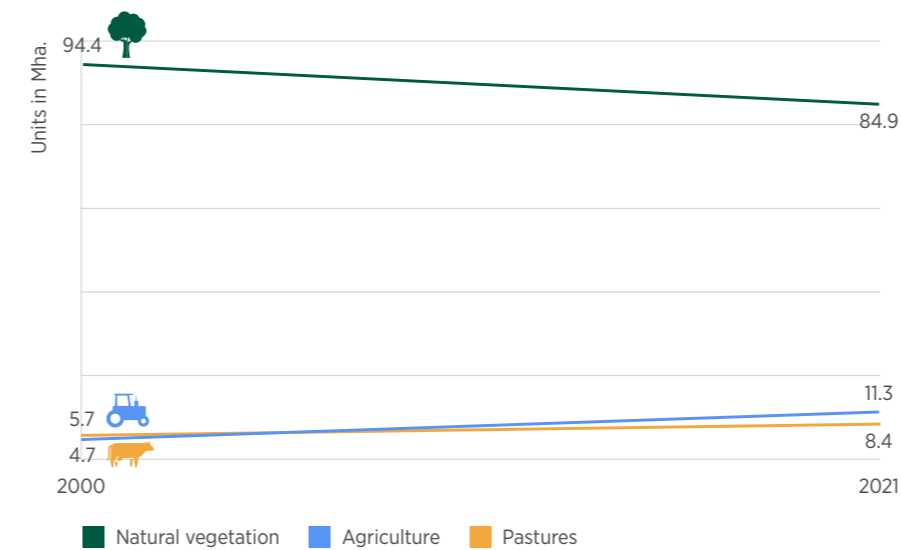
1.2.3 Gran Chaco

The Gran Chaco is a forest-rich ecosystem located in Argentina, Bolivia and Paraguay. Also in this ecosystem, land conversion continues at relatively high rates. Figure 6 shows the development of land use in the Gran Chaco between 2000 and 2021. In this period, 10% of natural vegetation was turned into agricultural lands or pastures¹⁵.

Concluding remarks

Soy production increased and soy trade continued despite the COVID-19 pandemic. Brazil and the United States remain the main producers of soy, China and Europe the main consumers. Conversion of natural ecosystems in soy producing countries continues at alarming rates. The soy sector has with the Amazon Moratorium and efforts in the area of certification, taken serious steps to decrease land conversion and promote sustainable agriculture. However, deforestation and land conversion are also caused by the timber, mining and livestock sector. Therefore, solutions that take into account all these different local interests are important as well.

Figure 6 Evolution of land change in the Gran Chaco from 2000 to 2021 (MapBiomias Chaco²⁰)



Clean supplier approach in the Cerrado

In January 2021, three Brazilian traders, Norwegian and Scottish buyers and ProTerra joined forces in an innovative project. The traders CJ Selecta, Caramuru and Imcopa/Cervejaria Petrópolis committed to only deliver non-GMO, deforestation and conversion-free soy to all their customers, applying a cut-off date of August 2020. The three companies agreed on a monitoring, reporting and verification (MRV) system to implement and enforce their commitment to zero-deforestation. The three traders already supplied ProTerra certified soy to the European salmon sector. With this new step, they no longer sell soy linked to land conversion to none of their clients. This project is an example of the clean supplier approach, increasingly promoted as a credible solution to sustainable supply chains.

Check the [ProTerra website](#) for more information.

Traceability dashboards

In addition to their FEFCO SSG compliant standards, and other standards in their portfolio, many traders have developed traceability-focused tools. Some examples are ORIGINS by Amaggi, Ace-Track by Bunge and SoyaWise by Cargill. These traceability tools are often accompanied by a dashboard where customers can log-in and identify specific details about the origin and supply chain of their purchases. Usually the focus of such traceability tools is on proving no-conversion and deforestation, and not or less on other sustainability topics.

2 Uptake of responsible soy in EU27+

The EU27+ imports most of its soybeans and soybean meal from Brazil, Argentina and United States. The soy enters in large vessels in European ports to be further distributed between countries in the EU27+. Some European countries have their own soy production. In addition, embedded soy is imported via meat, dairy and eggs. This chapter shows how much of that direct and embedded soy has been FEFAC SSG compliant and deforestation and conversion-free, either via credit based systems or physical supply chain solutions.

2.1 The EU27+ soy footprint

The reference for calculating the uptake of FEFAC SSG compliant soy is what we refer to as ‘European soy consumption’. The countries included in this definition are the European Union countries, plus the United Kingdom, Norway and Switzerland. The reference value ‘European soy consumption’ takes into account imports of direct and embedded soy and own soy production, corrected for exports of direct and embedded soy. These three categories are first discussed separately below.

2.1.1 Direct soy imports

Figure 7 shows the origins of the soybeans, soybean meal and soybean oil (all aggregated but not converted in one measurement unit) imported to the EU27+ in 2021. Brazil is by far the biggest origin, followed by Argentina, the United States and the European Union itself.

Table 1 shows that the EU27+ imported over 15 million tonnes of soybean and almost 18 million tonnes of soybean meal. Export of soybeans and soybean meal to the rest of the world is with respectively 191 thousand and 227 thousand a lot smaller. Most trade is between EU27+ countries. The figures are given with and without taking into account a conversion factor (0.8) for crushing the beans into soybean meal.

2.1.2. Soybean production

Soy production in the European Union (27 countries) increased from 2,681,690 tonnes in 2020 to 2,712,900 tonnes in 2021. Switzerland produced 6,040 tonnes of soy. Soy production in the United Kingdom and Norway was negligible. Therefore, for EU27+ a total soy production of 2,718,940 tonnes of soybeans is used. This equals 2,175,152 tonnes of soybean meal. Figure 7 shows the soy production in the European Union per country. Italy, France, Romania and Austria continue to be the main soy producers.

Figure 7 Origins of soybeans, soybean meal and soybean oil towards EU27+ in 2021

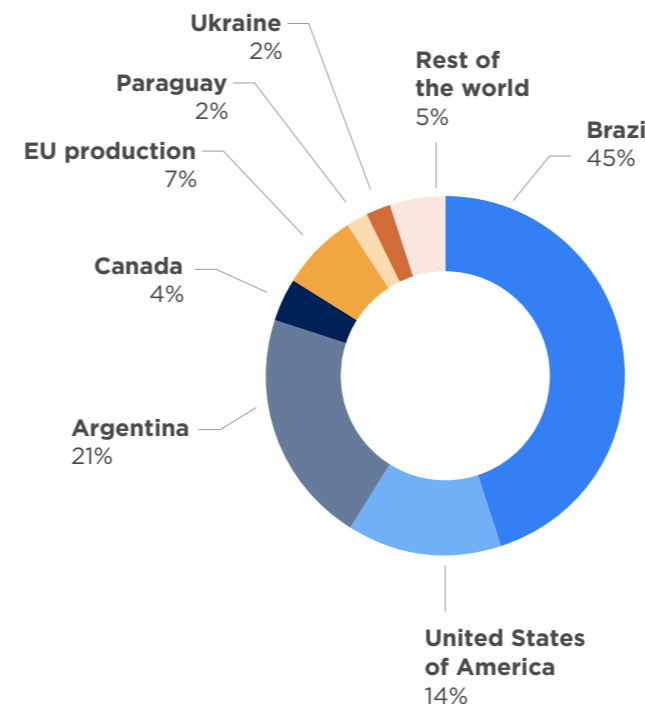


Figure 8 Soybean production in the European Union in 2021 (Eurostat)

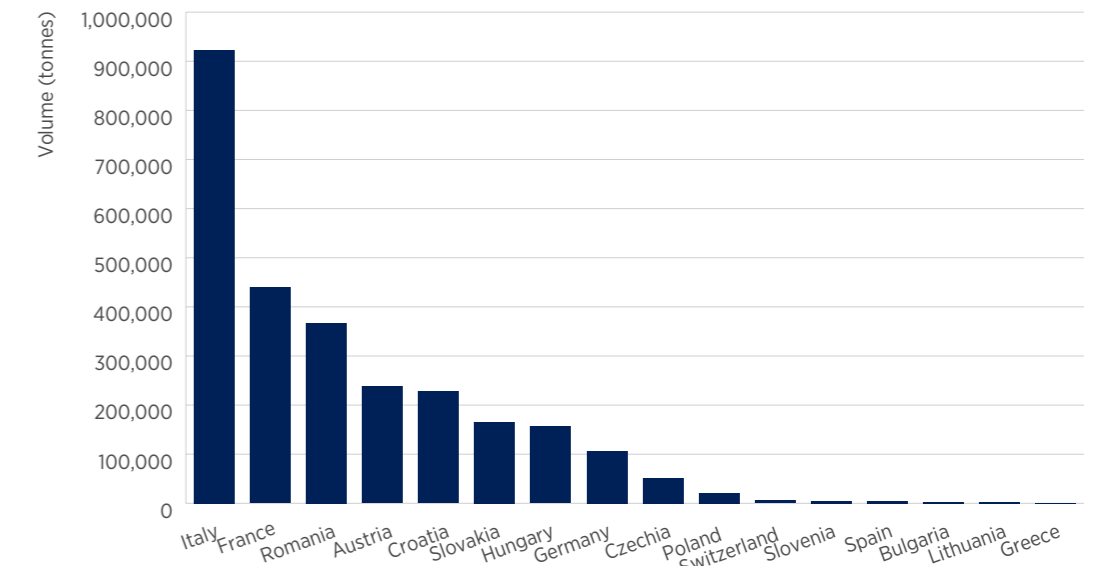


Table 1 Import and export of soybeans and soybean meal into and from EU27+

Soy products	Dominant use	Total import to EU27+ (in tonnes)	Total export from EU27+ to the rest of the world (in tonnes)	Net import
Soybeans (HS 1201)	Animal feed (after toasting or crushing)	15,121,526 (12,097,221 in meal)	191,036 (152,829 in meal)	14,930,490 (11.944.392 in meal)
Soybean meal (HS 2304)	Animal feed	18,014,703	227,441	17,787,262

Source: Based on Eurostat & Comtrade data

2. Uptake of responsible soy in EU27+

2.1.3 Embedded soy

Animal-based products such as meat, dairy and eggs, are produced using soy in the ration of the animals. Therefore, these products come with an embedded soy footprint. Most animal-based products consumed in the EU27+ are produced in countries in the EU27+. In addition, many countries in the EU27+ have a big livestock sector and export large volumes of animal-based products to the rest of the world. An overview of the biggest categories of imported and exported products is shown in table 2, the HS-codes can be found in the list of definitions.

Table 2 shows that relatively small volumes of animal-based products are imported in the EU27 (not corrected for Norway, the United Kingdom and Switzerland) from the rest of the world. Export from the EU27 to the rest of the world is, in contrast, large.

The accompanying soy footprint of these animal base products is shown in table 3. RTRS conversion-factors are used to calculate the embedded soy imported to the EU27. The average of the conversion factors calculated by Robert Hoste and his colleagues are used to calculate the embedded soy exported from the EU 27. Table 3 shows that the EU27 is a net exporter of embedded soy (3.5 million tonnes).

In this report the focus is on EU27+, so in addition to the EU27, the United Kingdom, Norway, and Switzerland are included. This means that both import and export are corrected for trade with these three countries. After this correction, the import of embedded soy to the EU27+ is 117,211 tonnes and the export of embedded soy is 3,296,044 tonnes. The difference between the two, the net export of embedded soy is around 3,178,833 million tonnes of soy.

2.1.4 Soybean meal available for consumption in EU27+

To arrive at the soybean meal available for consumption in the EU27+, the data from the previous sections is brought together. Table 4 provides an overview of the different elements that are included. The volume of soybean meal available for consumption in the EU27+, which we will use as the reference value for the calculations is 28.7 million tonnes.

Table 2 EU27 imports and exports of animal-based products (tonnes) 2021, (Eurostat)

Product	EU27 animal products imports	EU27 animal products exports
Beef	217,977	457,327
Pork	69,724	3,622,016
Poultry	375,114	1,809,047
Cheese	196,373	1,385,155
Other dairy products	856,976	4,651,420
Eggs	31,690	291,668

Source: Eurostat

Table 3 EU27 imports and exports of embedded soy (tonnes) 2021, (Eurostat)

Product	EU27 imports of embedded soy	EU27 exports of embedded soy
Beef	98,308	206,255
Pork	35,350	1,593,687
Poultry	283,586	1,486,494
Cheese	35,740	495,055
Other dairy products	31,708	166,242
Eggs	16,891	114,771
Total	501,583	4,062,504
Net export		3,560,921

Source: Eurostat

Table 4 Soybean meal available to EU27+ in tonnes, all values expressed as soybean meal (conversion factor 0.8 for soybeans, Eurostat & Comtrade)

Import		Export		Net available soybean meal
Import soybeans (*0.8)	12,097,221	Export soybeans (*0.8)	152,829	11,944,392
Import soybean meal	18,014,703	Export soybean meal	227,441	17,787,262
EU27+ Soybean production				2,175,152
Import embedded soy	117,211	Export embedded soy	3,296,044	-3,178,833
Total soybean meal available for consumption in EU27+				28,693,116

Source: Based on Eurostat & Comtrade data

2. Uptake of responsible soy in EU27+

2.2 Uptake of FEFAC SSG compliant soy

The data from the standards that are compliant with the FEFAC Soy Sourcing Guidelines is brought together in one table (Table 5). Unfortunately, only seven standards of the 17 shared their data. In addition, the data from the feed associations also indicate some uptake under the standards that did not report. Totalling 66,070 tonnes. The total volume of FEFAC SSG compliant soybeans with EU27+ as the final destination is 14.4 million tonnes. A reduction compared to 2020, when it was

15.4 million tonnes of soybeans. Converted to soybean meal, a volume of 11.5 million tonnes of soybean meal is available. The total volume of soybean meal available for consumption in EU27+ was calculated to be 28,727,972 and hence the percentage that is FEFAC SSG compliant is 40.1%. This is a decrease compared to the 43.8% of last year and the 42.2% in 2019.

Table 5 Overview of soy delivered under the FEFAC compliant soy standards to EU27+ (in tonnes)

Name	producing countries	supply chain model	total volume certified soybeans globally	destined for EU27+
Cefetra CRS	Brazil, Argentina, Paraguay	Book & claim, area mass balance, mass balance	562,980	562,980*
Donau Soja + Europe Soya	Russia, Ukraine, Croatia, Italy, Romania, Serbia, Austria, Hungary, Germany, France, Switzerland	Segregation, European mass balance	715,000	715,000
ProTerra	Canada, Brazil, Uruguay, Argentina, India, Russia, Ukraine, Romania, Poland, Germany, Belgium, France and Italy.	Mass balance, segregation, identity preserved	1,981,249	1,981,249
RTRS	Brazil, Argentina, India, Paraguay, Uruguay	Book & claim, country mass balance, mass balance, segregation	4,639,071	4,310,158*
Sustainable Farming Assurance Program (SFAP)	Brazil	Book & claim, area mass balance	600,000	600,000*
US Soy Sustainability Assurance Protocol (SSAP)	United States of America	Mass balance	38,295,127	5,731,994
ISCC+	Ukraine, Romania, Hungary, Croatia, Slovakia, Argentina, Czech Republic, Serbia, Slovenia, Russia, Bulgaria, Greece, Austria	Mass balance	421,475	421,475
Total in beans			47,214,902	14,322,856
Total in meal (x0.8)			37,771,922	11,458,285

*Based on credits

No information was obtained about: Agricultura Sustentable Certificada, ADM responsible soybean standard, Bunge Pro-S, Cargill Triple S, CSQA, FEMAS responsible feed module, Louis Dreyfus Responsible soy solution, Programma Coamo

Scheme ended: Amaggi ARS ended in 2021 and was replaced by ORIGINS. The ORIGINS FIELD standard is approved under the FEFAC SSG but no soy was sourced under the standard in 2021 yet.

Note The information provided in table 5 does not suggest that the traders are not supplying responsible soy. They have a portfolio of different 'soy solution', ranging from RTRS credits, to ISCC mass balance soy and segregated ProTerra soy. The information above only looks at soy certified under the company specific sustainability standards. Source: Data provided by the standard owners

'Soy Magicube': The multiple routes to responsible sourcing: Combining the best of approaches for conversion free sustainable soy

The Collaborative Soy Initiative (CSI) and Proforest have designed the Soy Magicube including six voluntary approaches to achieve conversion-free responsible soy production. The Magicube demonstrates that there are multiple instruments needed for the transition to responsible soy supply chains. Examples are robust certification schemes, biome-wide moratorium, clean supplier approach, landscape/jurisdictional initiatives, pre-competitive initiatives and carbon footprint framework.

The magicube provides insights on how particular goals can be achieved using the instruments at hand. The visualisation of the instruments and goals show that a smart mix of approaches is necessary to achieve sustainable soy production at scale. View a detailed narrative of the Magicube [here](#). CSI demonstrated, using the Magicube, that EUDR needs additional voluntary instruments, more information can be found [here](#).

FEFAC compliant soy in the EU vegetable oil and proteinmeal industry

FEDIOL also reports on the update of FEFAC compliant soy of member companies. In 2021, 42% of soybeans bought and processed by EU crushers were compliant with one of the schemes benchmarked according to FEFAC SSGs. A slight decrease compared to 2020 can be observed.

2. Uptake of responsible soy in EU27+

2.3 Uptake of certified DCF soy

For the uptake of certified DCF soy, the 2019 version of the Profundo benchmark has been used. In this study, the following six soy standards are indicated to be deforestation and conversion-free: CRS, Donau Soja/Europe Soya, ISCC+, ProTerra, RTRS, and SFAP non-conversion. Based on these six standards, the percentage of certified DCF soy in 2021 is 6,872,690/28,727,972= 24%. An update of the Profundo benchmark was recently published, assessing the topic of conversion-free soy in more detail, amongst other topics.

The Transparency Tool as developed by ITC for FEFAC in 2021, indicates that 14 different standards are providing deforestation and conversion-free soy. If the Transparency Tool would be the reference in this study, then the seven soy standards for which data is available would be considered Deforestation and Conversion-Free, and therefore 40% of the European soy consumption would be deforestation and conversion-free.

2.4 Soy from areas with a low risk of land conversion

The sections above reported about certified soy. This soy is produced applying good agricultural practices and with respect for human rights, workers and the environment. In addition to certified soy, the previous reports also provided an estimation of soy with a low risk of deforestation and land-conversion.

Table 6 shows as a rough estimation that 93.9% soy is likely to come from low-risk areas. The risk-percentages have been determined by FEFAC in close collaboration with experts from the producing countries. The increase in volume assumed from low risk areas (compared to previous years) can be explained as the % risk exposure in the Cerrado Brazil decreased.

Table 6 FEFAC's estimation of the risk of the exposure to deforestation and conversion for imports to the EU27+

Origin	% of the soy assumed to be low-risk	Soy products (beans + meal + oil)	Total from low risk-area
Brazil	89%	16,173,561	14,394,469
Argentina	97%	7,716,630	7,485,131
Paraguay	84%	903,516	758,954
United States	100%	4,899,248	4,899,248
Canada	100%	1,403,180	1,403,180
Ukraine	100%	745,354	745,354
EU production	100%	2,718,940	2,718,940
Rest of the world	100%	1,694,353	1,694,353
Total	93.9%	36,254,783	34,056,417

Source: FEFAC (risk percentages), EUROSTAT (trade data)

SourceUp!

It is important to support the efforts of farmers to produce in a sustainable manner. Topics such as water depletion, deforestation and land conversion happen at a larger-scale, involving many different actors. To tackle these challenges in a holistic manner, landscape work can offer a solution.

One of the frontrunners in this area is IDH, the Sustainable Trade Initiative. Together with its private and public partners, IDH has created an approach for credible and impactful landscape work. Local stakeholders in a specific landscape create a so-called Compact, in which they jointly set targets for production, conservation and (smallholder/community) inclusion. Concrete projects are designed to achieve these targets. Actors in the supply chain can contribute to these projects. The different Compacts, including the projects therein, are all available via the SourceUp platform.

By logging in to the SourceUp platform, downstream companies can connect with or contribute to a Compact in their sourcing area. Since all projects are designed and supported by local stakeholders, this allows companies at the end of the supply chain to make a positive impact that matters.

For about SourceUp, please visit the [website](#).

Concluding remarks

This chapter shows a small decline in the uptake of certified soy compared to the previous years. This decline can partly be attributed to methodological challenges, such as reliance on third party data. Of the 14.3 million tonnes of certified soy, an estimated 19% is segregated, 43% is traded via the mass balance model and 38% is covered by sustainability certificates.

Inclusion of conversion in the FEFAC Soy Sourcing Guidelines

The first version of the FEFAC Soy Sourcing Guidelines was published in 2015. In 2021, a full revision took place. As of 2021, the Guidelines include 73 criteria of which 54 essential and 19 desired criteria. Covering topics such as Responsible Working Conditions, Environmental Responsibility, Good Agricultural Practices, Respect for Legal Use of Land and Protection of Community Relations.

In 2021, FEFAC also started to provide insight into the standards that deliver deforestation and conversion-free soy via a so-called Transparency Tool on ITC's Sustainability Map website. In this tool all positively benchmarked standards can be filtered for their cut-off date, chain of custody models and the availability of carbon footprint data. In this way providing additional insights to market actors in the soy sector.

Note that the benchmark process run throughout the year, the old version of the benchmark is still used in this report.

For more information about the [FEFAC Soy Sourcing Guidelines 2021](#), and the latest update visit the [FEFAC-website](#).

Mapping of risk-municipalities

Six of the world's largest traders cooperate in the Soft Commodities Forum, under the flag of the World Business Council for Sustainable Development, to tackle deforestation and grassland conversion specifically in the Brazilian Cerrado.

In 2021, the six traders were able to transparently report the volumes sourced from 61 risk municipalities. These municipalities represent 70% of the area at-risk for deforestation associated with soy. The publicly available information includes both direct and indirect supplies. The process of obtaining the data has stimulated the implementation of better traceability systems, especially with indirect suppliers, which is also beneficial for addressing the key sustainability challenges.

In order to work with the farmers in the risk-municipalities, the 'Farmer First Clusters' are developed. Farmer First Clusters are a mechanism to attract funding from the supply chain and support farmers and their communities in a very practical way with topics such as reforestation, soy-cattle integration and conservation.

For more information about the work of the Soft Commodities Forum and the risk-assessment, please visit their [website](#).





3 Uptake of responsible soy per country

This chapter reports on the uptake of FEFCO Soy Sourcing Guidelines compliant and DCF soy in individual European countries.

Countries

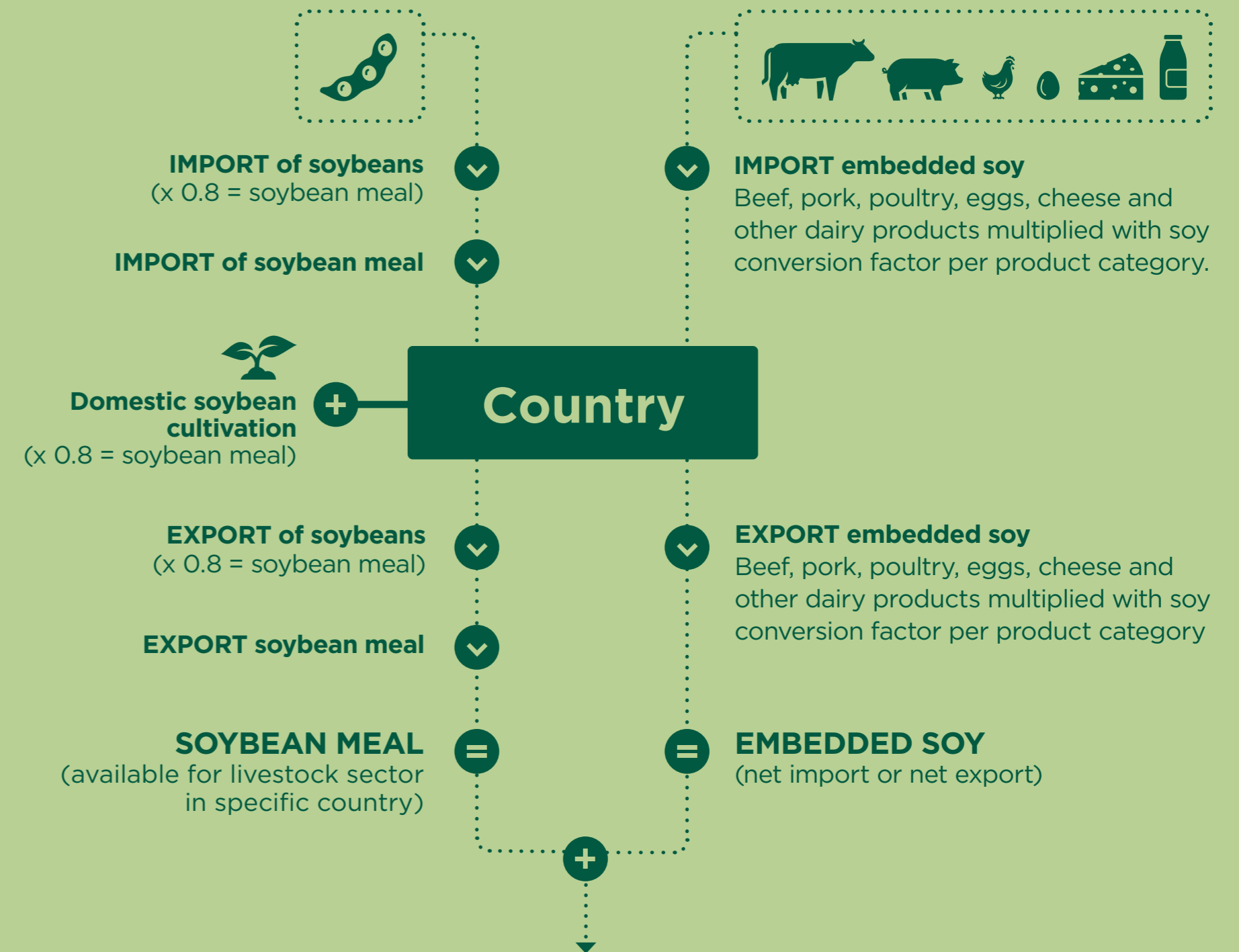
In addition to the overall analysis of responsible soy in the EU27+, the European Soy Monitor looks at specific countries in the EU27+. For each of these countries, the domestic soybean meal consumption is calculated, by looking at the import and export of direct and embedded soy. Based on the domestic soybean meal consumption, the % FEFAC-compliant and % DCF soy is calculated.

To directly navigate to the countries, please select the country below.



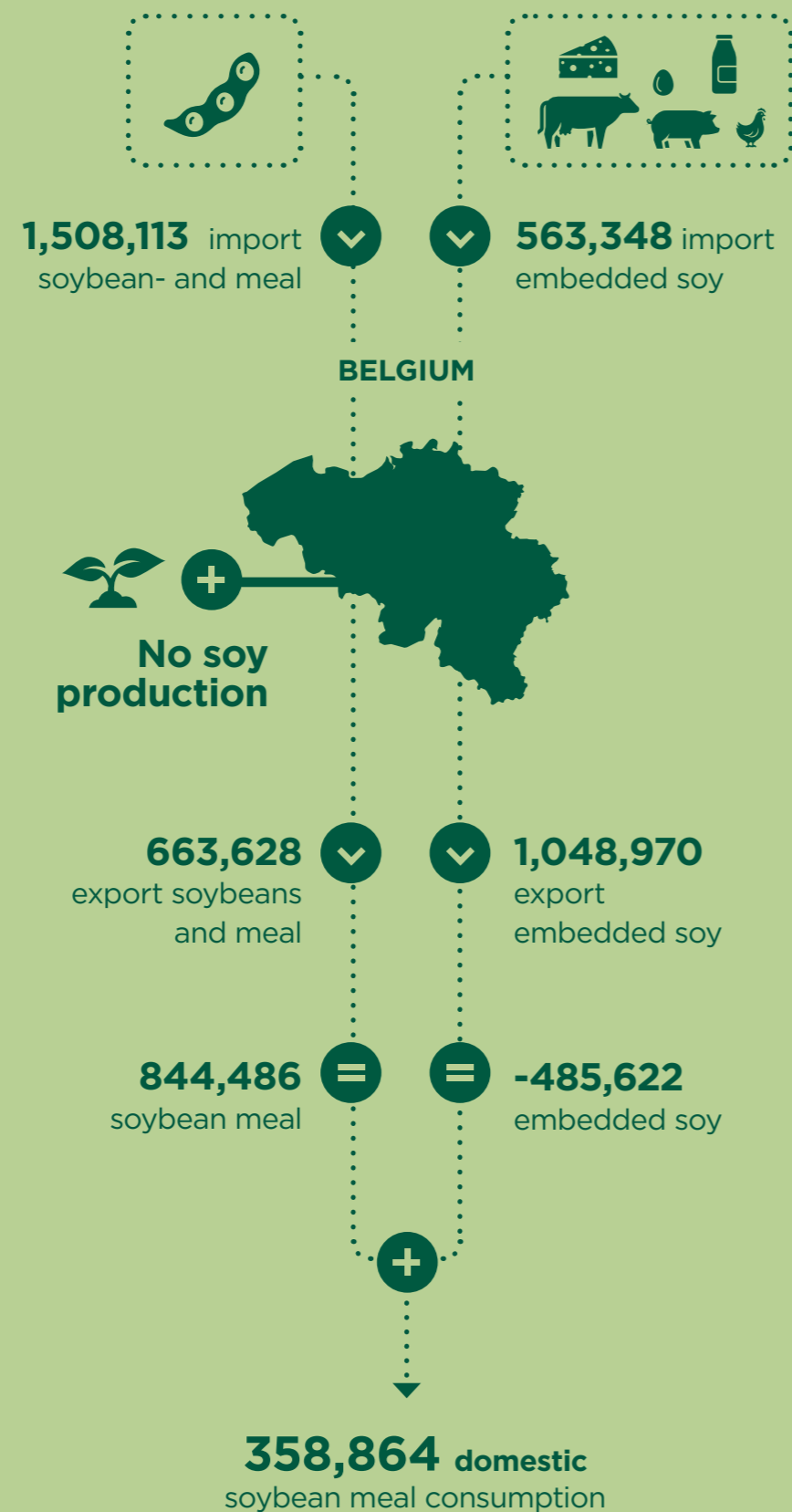
Calculation soybean meal consumption in a specific country

all volumes are in tonnes



Domestic soybean meal consumption

<p>%</p> <p>of domestic soybean meal consumption FEFAC SSG compliant (based on 17 FEFAC SSG compliant standards)</p>	<p>%</p> <p>of domestic soybean meal consumption deforestation-free (based on 6 standards identified in Profundo benchmark SFAP, CRS, RTRS, Donau/Europe Soya, ProTerra and ISCC+)</p>
---	---



>100% of domestic soybean meal consumption FEFAC SSG compliant

>100% of domestic soybean meal consumption deforestation-free

3.1 Belgium

3.1.1 Share of FEFAC SSG compliant soy

The Belgian feed industry has adopted a collective approach for supporting the production of responsible soy. Soy credits from four different sustainability standards are acquired. In 2021, credits covering a total of 450,000 tonnes of soy were bought under the standards ASC (30,000), CRS (175,000 tonnes), RTRS (120,000 tonnes), and SFAP non-conversion (125,000 tonnes).

In addition to the feed industry, food/retail companies acquired RTRS credits supporting responsible soy. Both food and feed companies together, covered 266,342 tonnes of soy with RTRS credits supporting responsible soy.

This means that 596,342 tonnes of soy were covered by credits acquired from FEFAC SSG compliant soy standards. This means that $596,342/358,864 = >100\%$ of the soy in 2021 was covered by credits acquired from FEFAC SSG compliant soy standards.

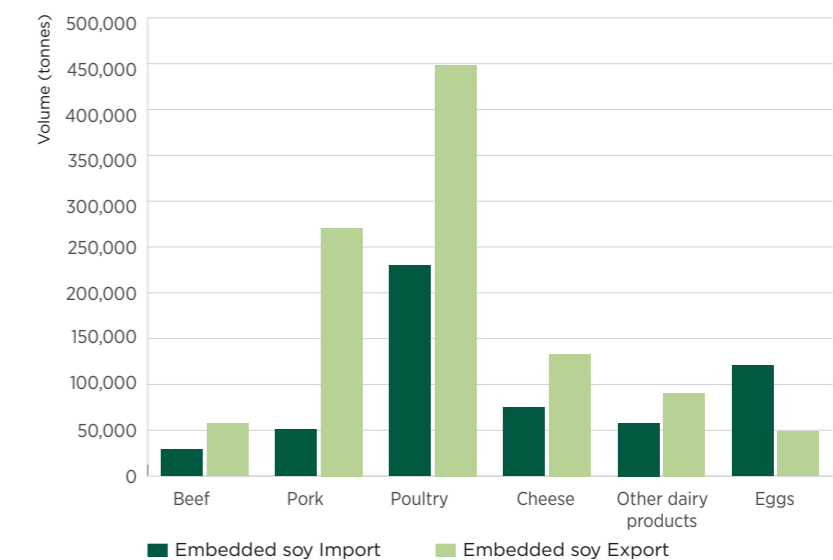
3.1.2 Share of certified DCF soy

The sustainable soy standards: CRS, RTRS and SFAP mentioned in Section 3.1.1 are identified by Profundo to deliver certified DCF soy or support the production of DCF soy via credits. In total this means that $(175,000+266,342+125,000)/358,864 = >100\%$ of soy was covered by credits acquired from FEFAC SSG compliant soy standards that support production of deforestation and conversion-free soy.

Contribution of the feed industry

It is estimated that the Belgian compound feed industry used 760,000 tonnes of soybean meal in 2021 (Source BFA). Of these 760,000 tonnes, 450,000 tonnes were covered by sustainability credits supporting responsible soy. Which means that 59% of soy used in feed was covered by credits from a FEFAC SSG compliant standard and 55% was covered by credits from a deforestation and conversion-free standard.

Figure 9 Belgium import and export of embedded soy in 2021

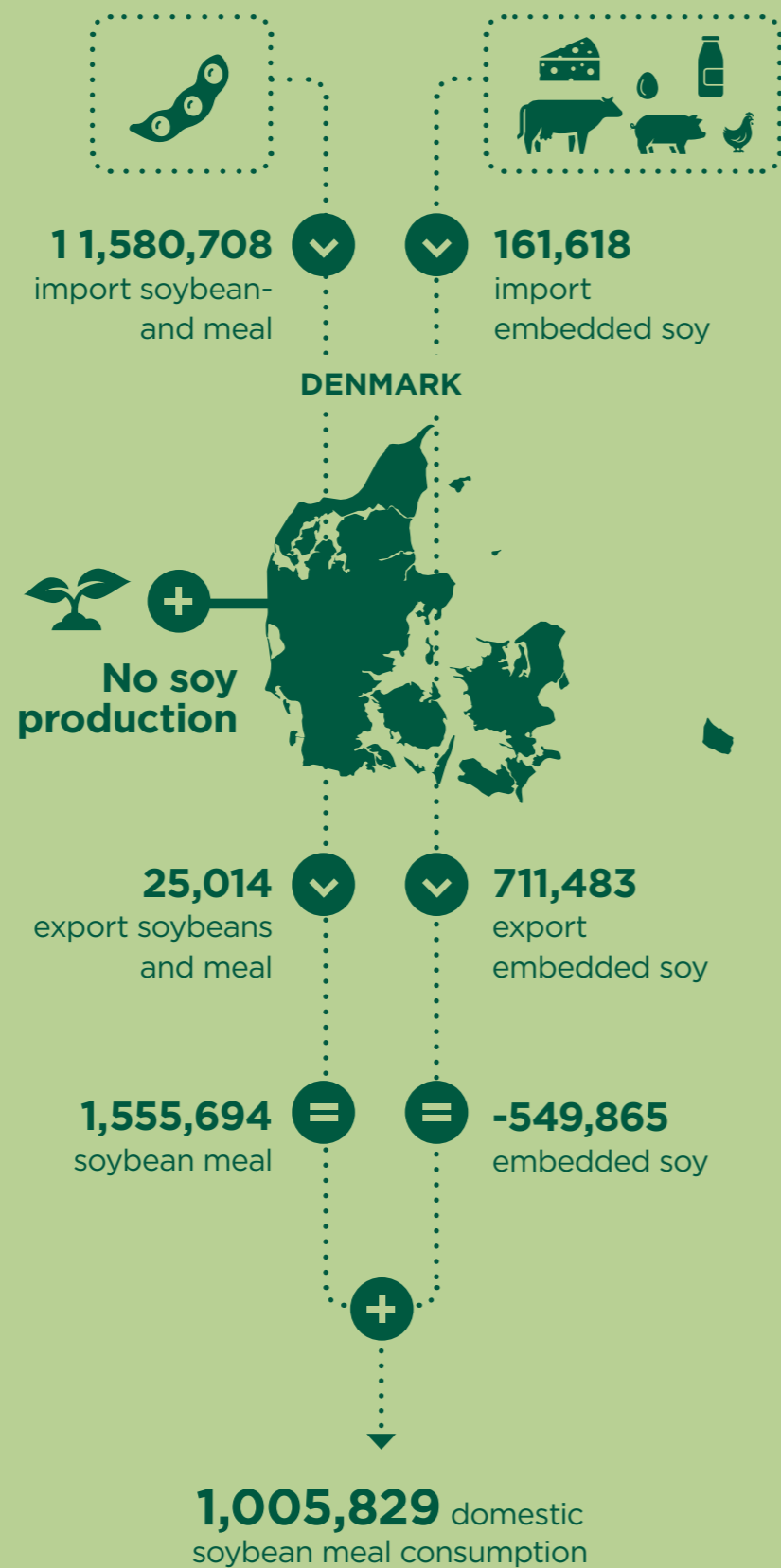


Source: Eurostat

Table 7 Soybean meal available for the Belgium livestock sector

in tonnes	Import	Export	Net available
Soybean meal	1,146,913	533,726	613,187
Soybeans x0.8	361,200	129,902	231,298
Net availability	1,508,113	663,628	844,486

Source: Eurostat



86%
of domestic soybean meal consumption FEFAC SSG compliant

51%
of domestic soybean meal consumption deforestation-free

3.2 Denmark

3.2.1 Share of FEFAC SSG compliant soy

The Danish feed industry has a collective commitment towards sourcing under the FEFAC Soy Sourcing Guidelines. In 2021, 400,000 tonnes of soy were sourced under one of the FEFAC SSG compliant standards. Although no specification is given for competition reasons, Danish feed companies are audited on an annual basis to verify compliance to the commitment.

In addition to the feed industry, at least one Danish food company acquired RTRS credits supporting responsible soy covering a total of 460,000 tonnes of soy.

This means that in total $400,000 + 460,000 = 860,000$ tonnes of soy were covered by credits acquired from FEFAC SSG compliant soy standards. As a result $860,000 / 1,005,829 = 86\%$ of the soy consumption in Denmark was FEFAC SSG compliant, either via physical chain of custody models or via credits.

3.2.2 Share of certified DCF soy

RTRS reported that various Danish companies acquired RTRS credits supporting responsible soy. In total, credits were acquired covering 508,822 tonnes of soy. We have not used that figure in paragraph 3.2.1. to avoid overlap with the 400,000 tonnes reported by Dakofo. However, using the RTRS credits acquired by all Danish stakeholders, the result is that $508,822 / 1,005,829 = 51\%$ of the domestic soybean meal consumption was covered by credits from a deforestation and conversion-free standard in 2021.

Table 8 Soybean meal available for the Danish livestock sector

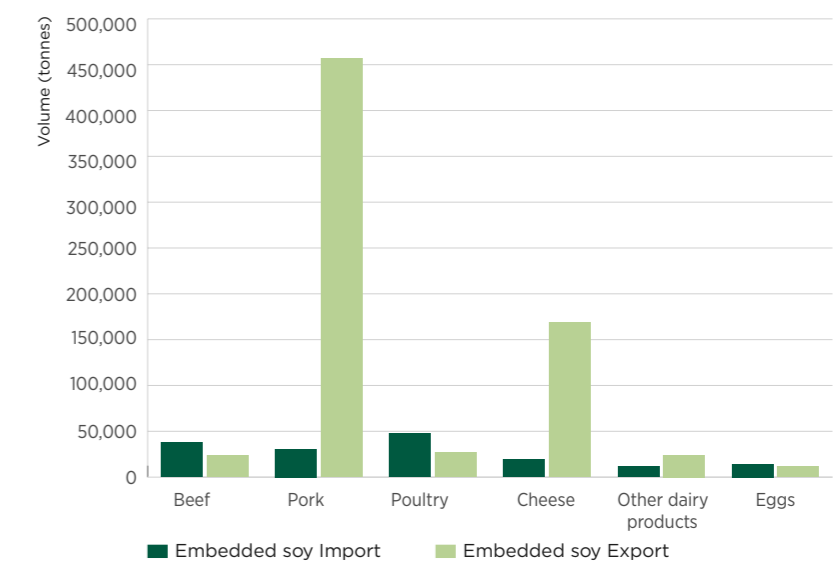
in tonnes	Import	Export	Net available
Soybean meal	1,557,518	24,273	1,533,245
Soybeans x0.8	23,190	741	22,449
Net availability	1,580,708	25,014	1,555,694

Source: Eurostat

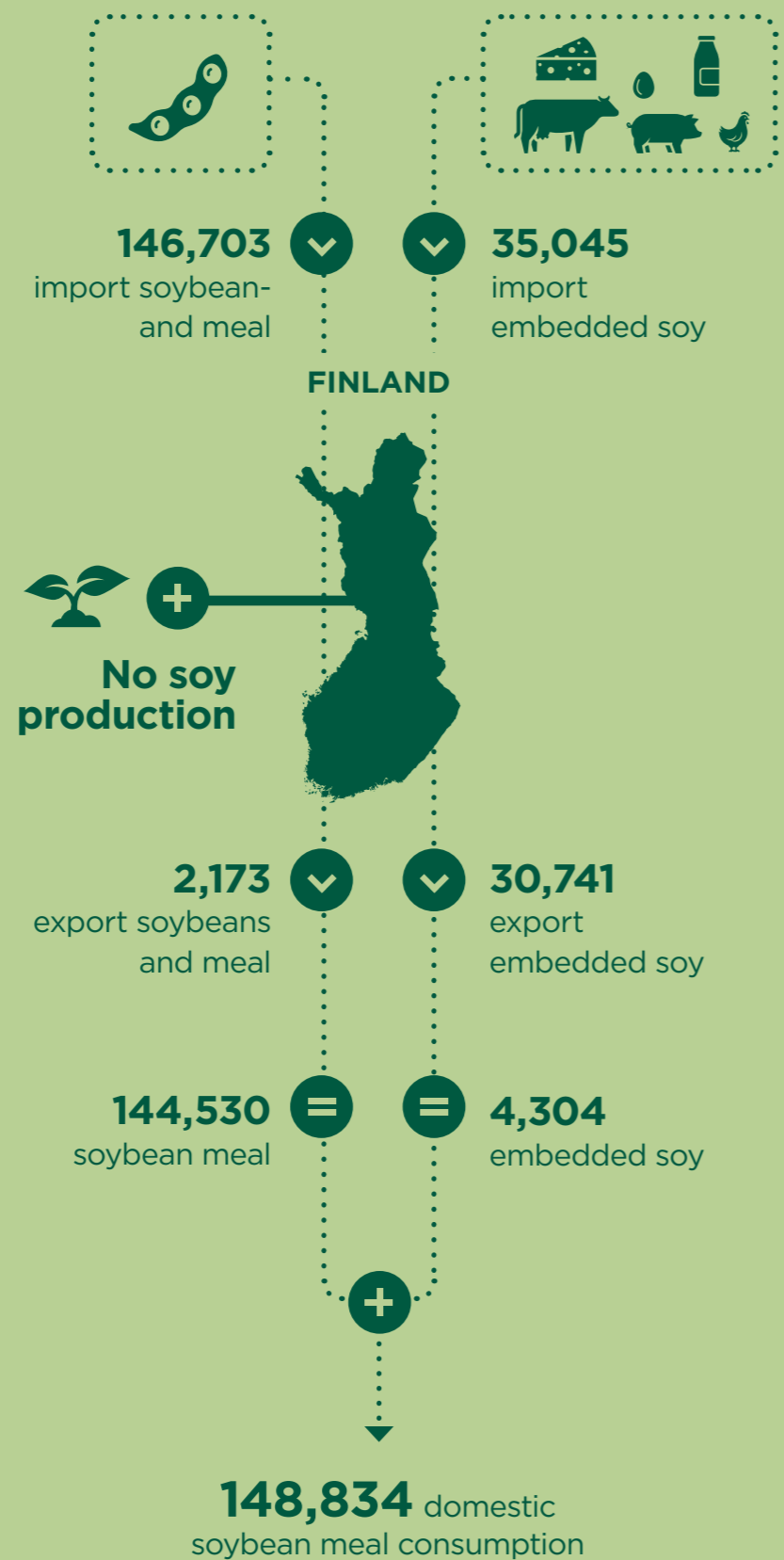
Contribution of the feed industry

It is estimated that the Danish compound feed industry used 513,000 tonnes of soybean meal in 2021 (Source Dakofo). Of these 513,000 tonnes, 400,000 tonnes were FEFAC SSG compliant either via credits or via physical supply chain solutions. Which means that 78% of soy used in feed was sourced certified under a FEFAC SSG compliant standard. It cannot be defined how much of that was also certified deforestation and conversion-free.

Figure 10 Danish import and export of embedded soy in 2021



Source: Eurostat



52%
of domestic soybean meal consumption FEFAC SSG compliant

52%
of domestic soybean meal consumption deforestation-free

3.3 Finland

3.3.1 Share of FEFAC SSG compliant soy

The Finnish feed association (FFDIF) did not report on the volume of FEFAC SSG compliant soy. However, RTRS reported that 77,493 tonnes of certified soy were purchased by Finnish market actors. This means that when looking at the domestic soybean meal consumption $77,493/148,834 = 52\%$ of the soy was covered by credits acquired from a FEFAC SSG compliant soy standard.

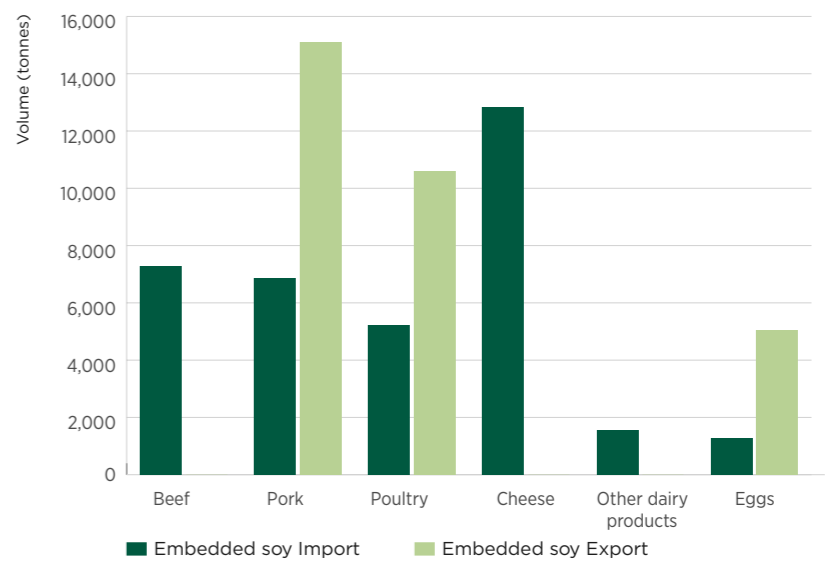
3.3.2 Share of certified DCF soy

The volume mentioned in section 3.3.1 is also assumed to support the production of DCF soy. In total this means that $77,493/148,834 = 52\%$ of the domestic soybean meal consumption was covered by credits from a deforestation and conversion-free standard in 2021.

Contribution of the feed industry

It is estimated that the Finnish compound feed industry used 117,000 tonnes of soybean meal in 2021 (Source FFDIF). It is not clear to what extent the feed industry acquired RTRS credits supporting responsible soy, or bought certified soy under one of the other FEFAC SSG compliant standards.

Figure 11 Finnish import and export of embedded soy in 2021

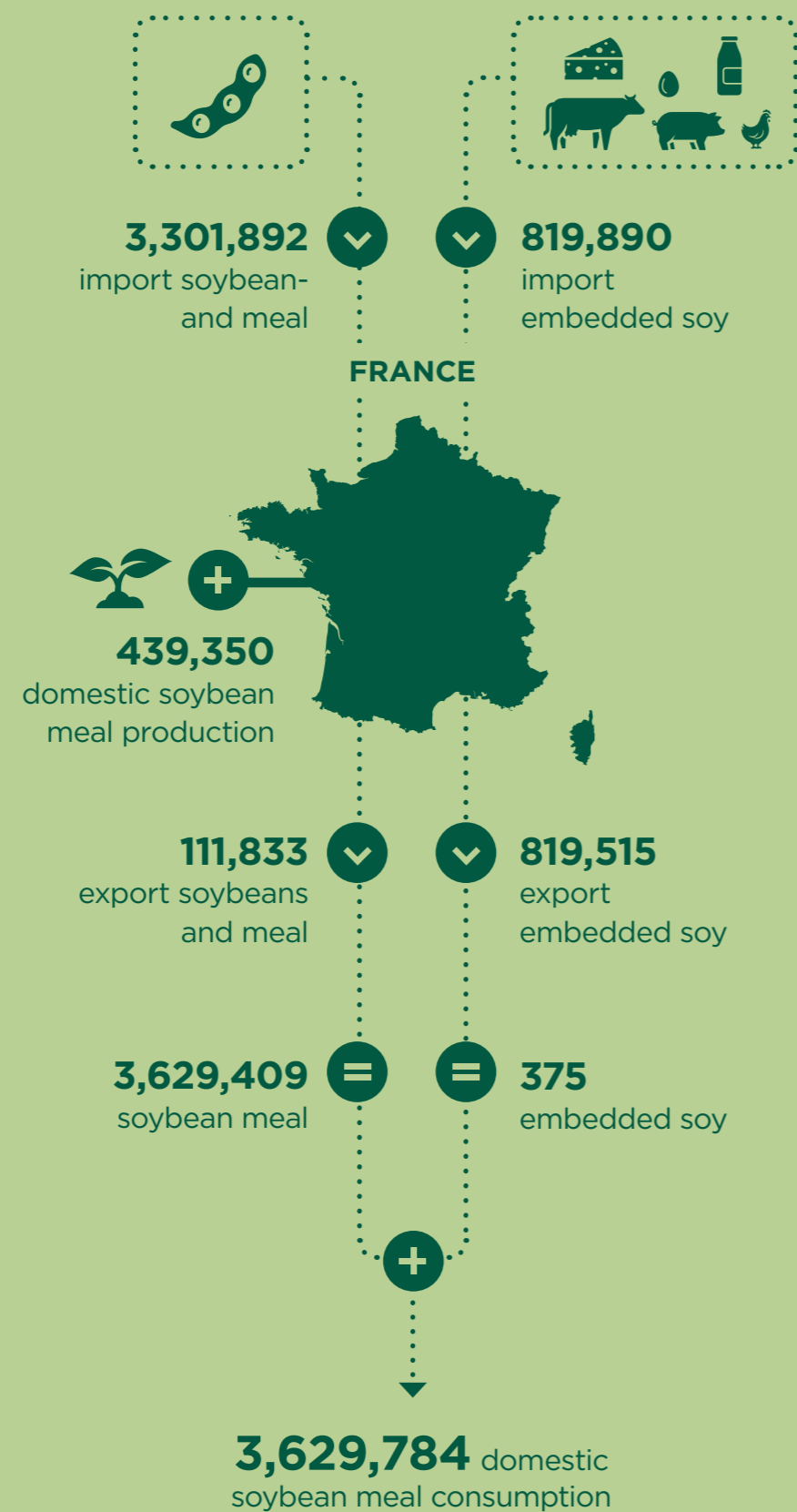


Source: Eurostat

Table 9 Soybean meal available for the Finnish livestock sector

in tonnes	Import	Export	Net available
Soybean meal	125,253	2,173	123,080
Soybeans x0.8	21,450	0	21,450
Net availability	146,703	2,173	144,530

Source: Eurostat



55% of domestic soybean meal consumption FEAC SSG complaint

9% of domestic soybean meal consumption deforestation-free

3.4 France

3.4.1 Share of FEAC SSG compliant soy

In France, the collective initiative Duralim is promoting the use of responsibly produced ingredients in feed solutions in France. In 2021, 260,000 tonnes of ProTerra and 90,000 tonnes of SSAP soy were acquired in the physical supply chain. In addition, 1,560,000 tonnes of ‘assumed FEAC SSG compliant soy’ have been sourced by French feed companies under the 2BSVS standard, French soy production and Bunge’s responsible soy standard.

In addition, RTRS figures are obtained providing an inside in the overall uptake of RTRS credits supporting sustainable soy in France. This figure of 83,720 ton includes acquisitions from the feed industry and the food industry. Analysing domestic soybean meal consumption reveals that $1,993,720/3,629,784 = 55\%$ of the soy consumption in France was FEAC SSG compliant, covered by credits or physical chain of custody solutions.

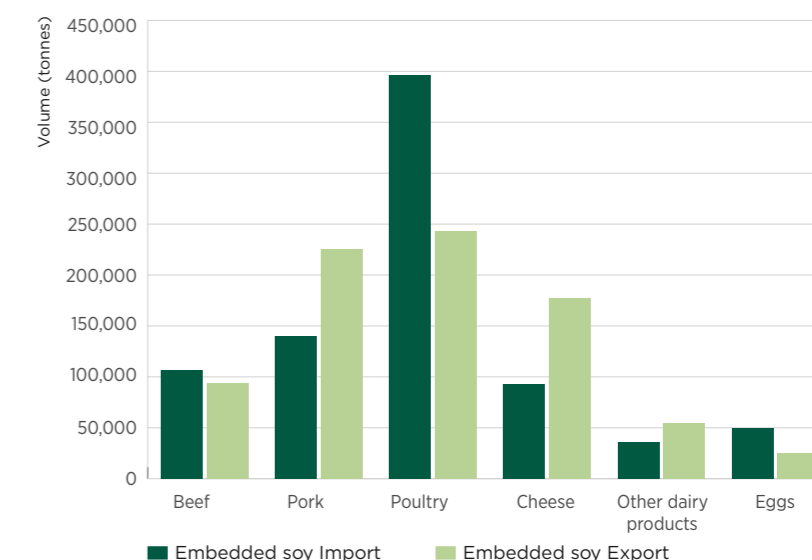
3.4.2 Share of certified DCF soy

Two standards mentioned under 3.4.1 (ProTerra and RTRS) are also assumed to deliver certified DCF soy or support DCF soy via credits. In total this means that $(260,000+83,720)/3,629,784 = 9\%$ of the soy is certified as deforestation and conversion free or covered by credits supporting DCF soy. The initiative Duralim developed an observatory for the risk that imported soy could be linked to deforestation or land conversion. According to the 2020/2021 publication, 73% of the soy usage in France was assumed to be deforestation and conversion-free.

Contribution of the feed industry

It is estimated that the French compound feed industry used 2,706,800 tonnes of soybean meal in 2021 (Source Eurofac). The feed sector used 1,910,000 tonnes of (assumed) FEAC SSG compliant soy, which is 71% of the total soy used in the feed sector in 2021. Of this 2,706,809 tonnes, 9,6% is certified under a deforestation and conversion-free soy standard via a physical chain of custody model.

Figure 12 French import and export of embedded soy in 2021

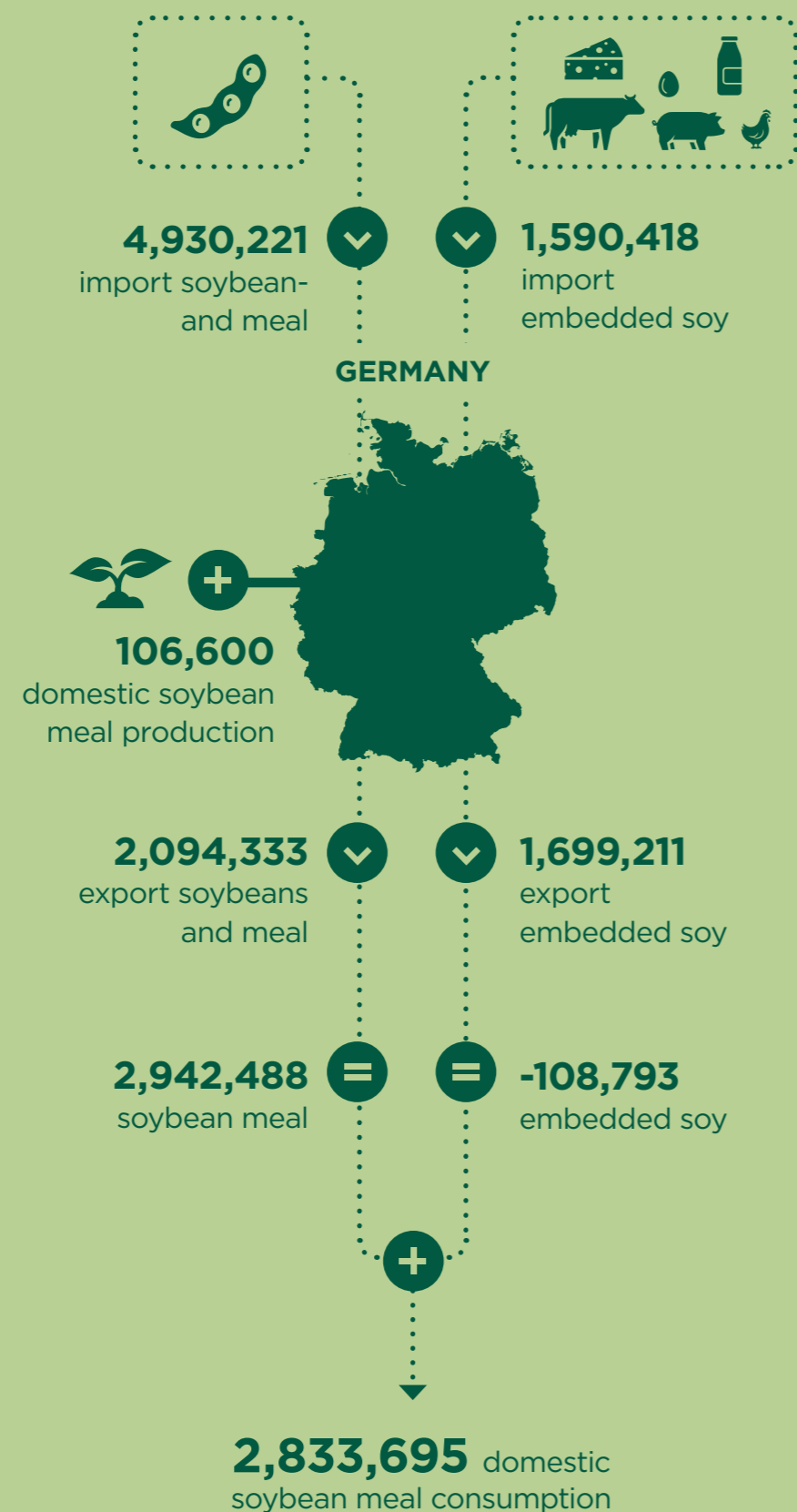


Source: Eurostat

Table 10 Soybean meal available for the French livestock sector

in tonnes	Import	Export	Domestic production	Net available
Soybean meal	2,911,590	26,735		2,884,856
Soybeans x0.8	390,301	85,098	439,350	744,554
Net availability	3,301,892	111,833		3,629,409

Source: Eurostat



89% of domestic soybean meal consumption FEFAC SSG compliant

63% of domestic soybean meal consumption deforestation-free

3.5 Germany

3.5.1 Share of FEFAC SSG compliant soy

In Germany, a total of 1,062,236 tonnes of soy have been acquired under one of the FEFAC SSG compliant standards (Source DVT). Of this, 1,006,558 tonnes are specified to be sourced under a specific standard, namely SSAP, ADM Responsible soy, Bunge Pro-S, CRS, Donau Soja, Europe Soya, ProTerra and RTRS. Only the specified volumes are included. For competition reasons the exact specifications are not provided, but they are known by the authors of the report.

In addition, various standards have indicated their total certified volume used in Germany. These volumes include the uptake for both food and feed and are 526,485 tonnes of RTRS soy, 59,500 tonnes of CRS soy, 12,000 tonnes of Donau Soja and 1.2 million tonnes of Proterra soy.

To avoid double counting we use the figures of the standards themselves in addition to the two standards that are indicated by DVT (ADM Responsible Soy & Bunge Pro-s). The final result is that $2,525,214 / 2,833,695 = 89\%$ of the soy in 2021 was covered by credits or by soy sourced under a physical chain of custody model from FEFAC SSG compliant soy standards.

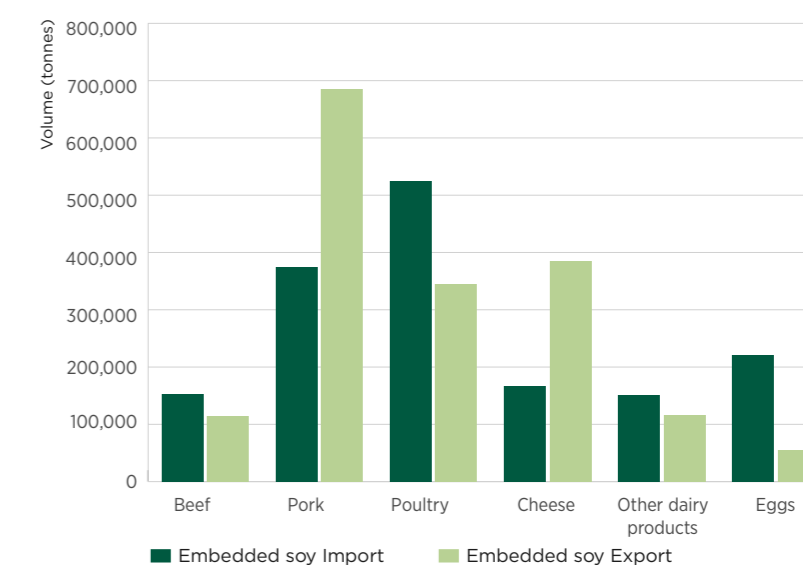
3.5.2 Share of certified DCF soy

The volumes procured under Europe Soya, Donau Soja, ProTerra, RTRS and CRS mentioned under 3.5.1 are assumed to deliver certified DCF soy. This means that $(12,000 + 1,200,000 + 526,485 + 59,500) / 2,833,695 = 63\%$ was certified DCF partly by acquiring credits but mostly in the physical soy supply chain.

Contribution of the feed industry

It is estimated that the German compound feed industry used 2,329,299 tonnes of soybean meal in 2021 (Source DVT). Of this total volume, the feed sector used 1,006,558 tonnes of FEFAC SSG compliant soy. This corresponds to 43% of FEFAC SSG compliant soy, which is either sourced via credits or physical supply chain models. In the feed sector, 279,329 tonnes of soy are acquired under the six standards identified in the Profundo benchmark to deliver deforestation and conversion-free soy, corresponding to 12% of the total use of soy in German feed.

Figure 13 German import and export of embedded soy in 2021



Source: Eurostat

Table 11 Soybean meal available for the German livestock sector

in tonnes	Import	Export	Domestic production	Net available
Soybean meal	2,051,796	2,071,253		-19,457
Soybeans x0.8	2,878,425	23,081	106,600	2,961,944
Net availability	4,930,221	2,094,333	106,600	2,942,488

Source: Eurostat



30% of domestic soybean meal consumption FEFAC SSG compliant

0% of domestic soybean meal consumption deforestation-free

3.6 Italy

3.6.1 Share of FEFAC SSG compliant soy

In Italy, the compound feed sector used 352,539 tonnes of SSAP soy. An additional 923,470 tonnes of soy are 'assumed to be FEFAC SSG compliant' which is the volume of soy produced in Italy. Together this is 1,276,009 tonnes of (assumed) FEFAC SSG compliant soy in the physical supply chain.

No standards reported additional uptake of certified responsible soy by other players in Italy in 2021.

Analysing domestic soybean consumption reveals that $1,276,009 / 4,252,998 = 30\%$ of the soy in 2021 was certified under a FEFAC SSG compliant soy standard.

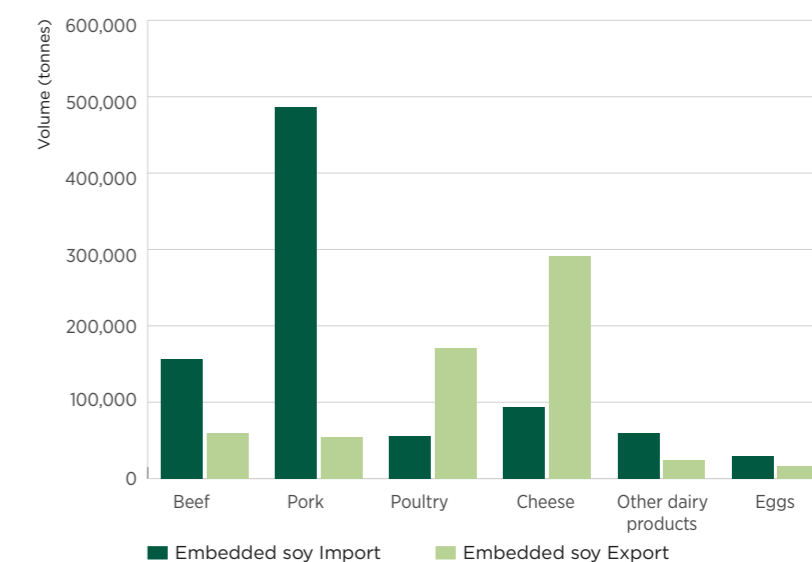
3.6.2 Share of certified DCF soy

As there is no information available about volumes procured under one of the six standards that are assumed to deliver deforestation and conversion-free soy, the % of certified DCF soy is 0. It can be assumed that the Italian soy is deforestation and conversion-free.

Contribution of the feed industry

It is estimated that the Italian compound feed industry used 3,561,633 tonnes of soybean meal in 2021 (Source: ASSALZOO). Of this total volume, the feed sector used 1,276,009 tonnes of FEFAC SSG compliant soy. This corresponds to 36% of FEFAC SSG compliant soy.

Figure 14 Italian import and export of embedded soy in 2021



Source: Eurostat

Table 12 Soybean meal available for the Italian livestock sector

in tonnes	Import	Export	Domestic production	Net available
Soybean meal	1,631,084	207,413		1,423,671
Soybeans x0.8	1,930,796	24,939	923,470	2,829,327
Net availability	3,561,879	232,352		4,252,998

Source: Eurostat



>100%
of domestic soybean meal consumption FEAC SSG compliant

>100%
of domestic soybean meal consumption deforestation-free

3.7 Netherlands

3.7.1 Share of FEAC SSG compliant soy

In the Netherlands, it is estimated that 1,673,247 tonnes of FEAC SSG compliant soy are used (Source Nevedi). Of this 1,673,247 tonnes, 1,007,972 tonnes are specified to be sourced under a specific standard. The 1,007,972 tonnes of soy are covered by RTRS credits supporting responsible soy. In our calculations we only include the specified volumes.

Two standards, CRS and RTRS, have indicated the amount of credits they sold to Dutch food and feed companies. RTRS indicates that credits corresponding to 1,625,851 tonnes of soy are acquired by Dutch stakeholders. CRS indicates that credits corresponding to 715,518 tonnes of soy are acquired by Dutch companies. These figures include both feed and food companies. Therefore, we use the overall RTRS and CRS figures to calculate the soy covered by a FEAC SSG compliant standard in the Netherlands

Analysing domestic soybean consumption reveals that $2,341,369 / 1,150,457 = >100\%$ of the soy in 2021 was covered by credits acquired from FEAC SSG compliant soy standards.

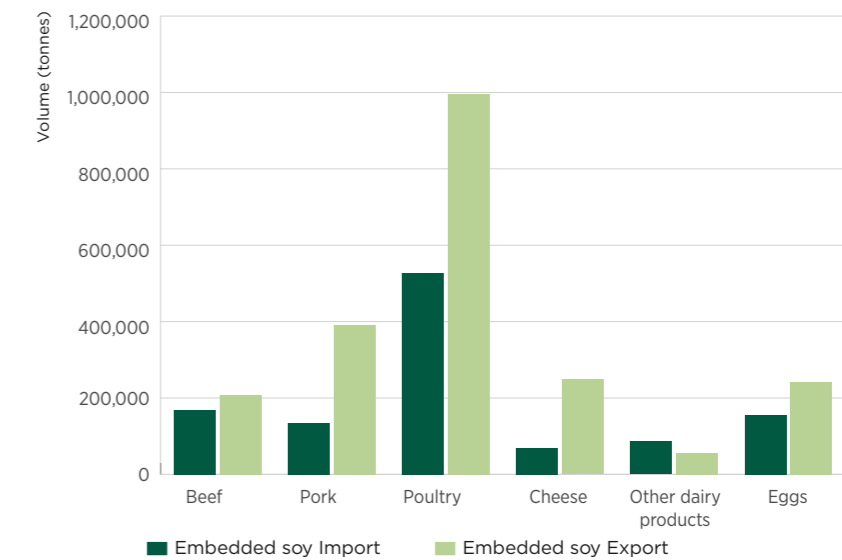
3.7.2 Share of certified DCF soy

The FEAC-SSG compliant volumes defined in section 3.7.1 are also assumed to support deforestation and conversion free soy as it concerns volumes covered by credits from RTRS and CRS. Therefore $2,341,369 / 1,150,457 = >100\%$ is covered by credits that support deforestation and conversion-free soy production.

Contribution of the feed industry

It is estimated that the Dutch compound feed industry used 1,516,915 tonnes of soybean meal in 2021 (Source: Nevedi). The feed industry estimated that 1,673,247 was sourced under a FEAC SSG compliant standard. It may be assumed that a big part of CRS soy is used for feed. Therefore it can be calculated that 110% of the soy used in compound feed in the Netherlands was covered by credits supporting responsible soy and deforestation and conversion-free soy production.

Figure 15 Dutch import and export of embedded soy in 2021



Source: Eurostat

Table 13 Soybean meal available for the Dutch livestock sector

in tonnes	Import	Export	Net available
Soybean meal	2,461,643	2,847,772	-386,128
Soybeans x0.8	3,329,851	790,904	2,538,948
Net availability	5,791,495	3,638,676	2,152,819

Source: Eurostat



>100% of domestic soybean meal consumption FEFAC SSG complaint

>100% of domestic soybean meal consumption deforestation-free

3.8 Norway

3.8.1 Share of FEFAC SSG compliant soy

It is estimated that the Norwegian compound feed industry uses 364,162 tonnes of ProTerra certified soy (Dakofo). In addition to the compound feed industry, also the aquaculture sector uses ProTerra certified soy (soy protein concentrates).

In order to assess the percentage of FEFAC SSG compliant and certified DCF soy, the domestic consumption must be calculated. In the specific case of Norway it means the impact of the aquaculture sector must be included. Norway produces 1,640,538 tonnes of farmed fish of which 1,565,000 tonnes are exported. The corresponding embedded soy footprint for the domestic consumption of farmed fish is 22,301 tonnes*. We add this to the other embedded soy (16,732 tonnes) to come to the overall calculation of domestic soybean meal consumption (231,651 tonnes).

Data from ProTerra shows that approximately 450,000 tonnes of soy certified by ProTerra entered the Norwegian market. This means that when looking at the domestic soybean meal consumption, $450,000 / 231,651 = >100\%$ of the soy in 2021 was FEFAC SSG compliant under the segregated chain of custody model.

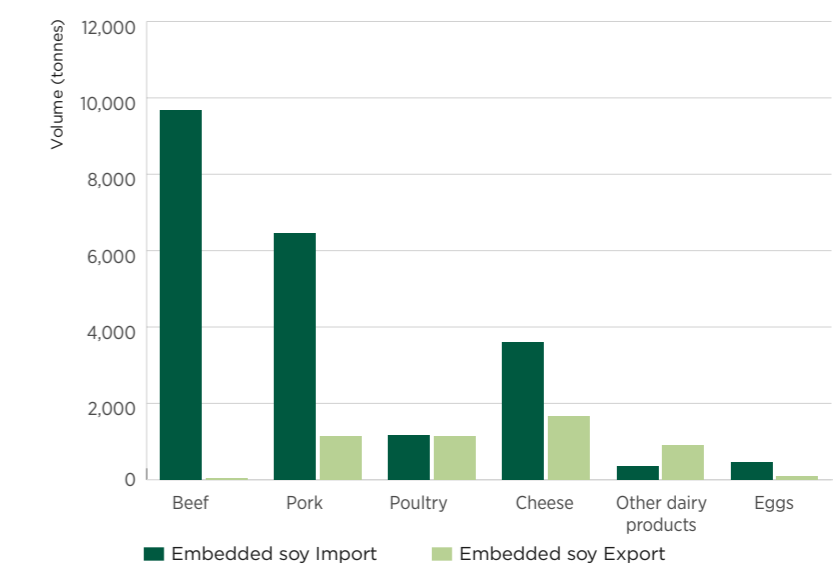
3.8.2 Share of certified DCF soy

ProTerra is categorised as a DCF soy standard, meaning that in Norway more than 100% of the soybean meal available for domestic consumption was certified DCF ($450,000 / 231,651 = >100\%$) under the segregated chain of custody model.

Contribution of the feed industry

It is estimated that the Norwegian compound feed industry used 511,437 tonnes of soybean meal in 2021 (Source: Dakofo). Of this total, 364,162 tonnes are ProTerra certified. This corresponds to 71% of soy that is both FEFAC SSG compliant and certified DCF under the segregated chain of custody model.

Figure 16 Norwegian import and export of embedded soy in 2021



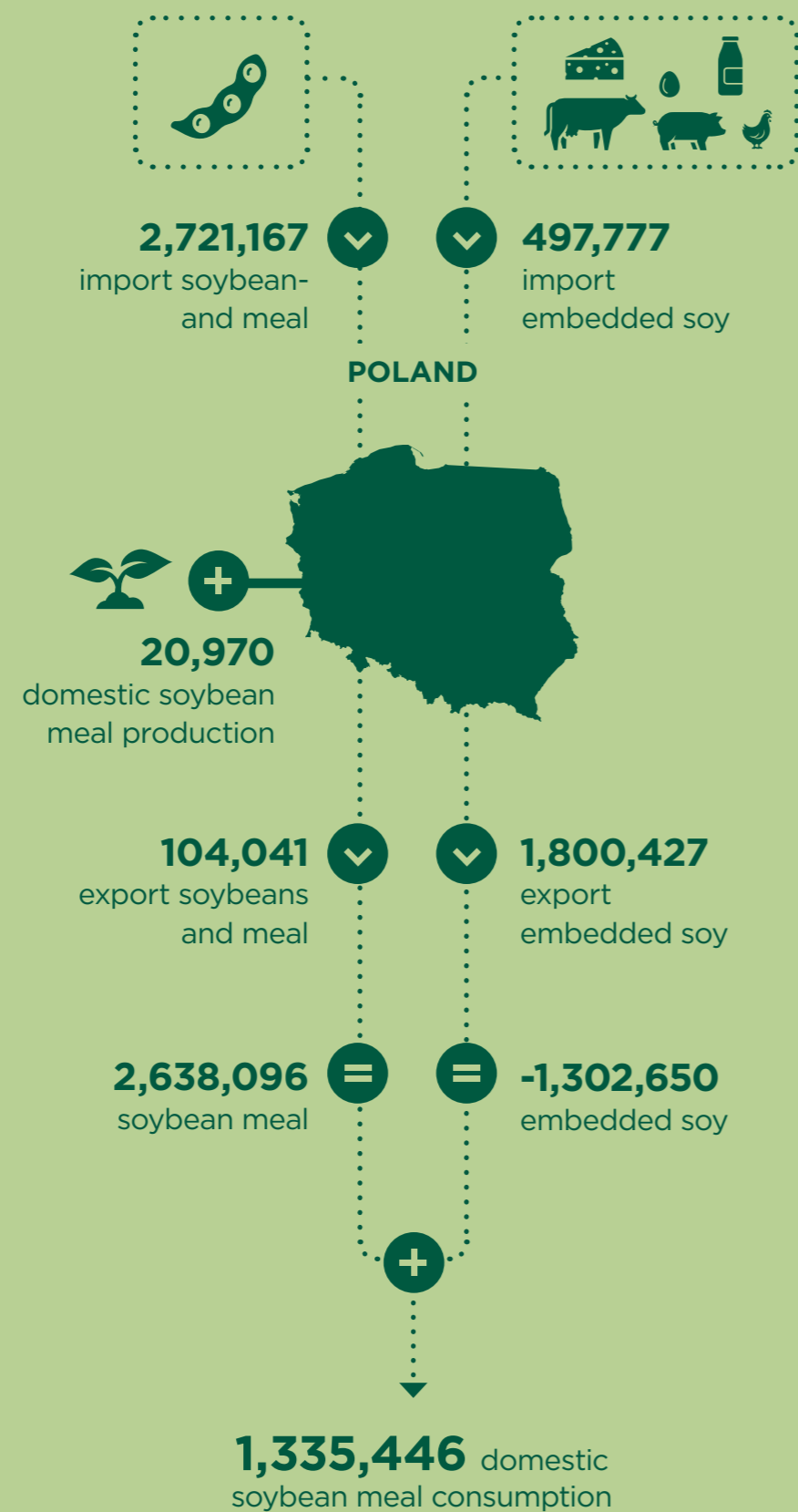
Source: Eurostat

Table 14 Soybean meal available for the Norwegian livestock sector

in tonnes	Import	Export	Net available
Soybean meal	10,093	186,561	-176,468
Soybeans x0.8	369,090	4	369,086
Soybean meal in aquaculture			22,301
Net availability	379,183	186,565	214,919

Source: Eurostat

*To produce the 1,640,538 tonnes of fish 364,162 tonnes of soy protein concentrates are used. The domestic consumption of farmed fish in Norway was 75,538 tonnes (1,640,538 - 1,565,000), this leads to a usage of 16,768 tonnes of soy protein concentrate for domestic consumption ($(364,162 / 1,640,538) * 75,538$). Since the unity of measurement in this report is soybean meal, we convert the soy protein concentrate to soybean meal, using the conversion factor 1.33. The corresponding embedded soy footprint for the domestic consumption of farmed fish is 22,301 tonnes ($1,33 * 16,768$ tonnes).



0% of domestic soybean meal consumption FEFAC SSG compliant

0% of domestic soybean meal consumption deforestation-free

3.9 Poland

3.9.1 Share of FEFAC SSG compliant soy

There is no information available about the uptake of FEFAC SSG compliant soy in Poland in 2021. There is no additional data available from standards with regard to the Polish market.

This means that the % of FEFAC SSG compliant soy in Poland was $0/1,335,446 = 0\%$.

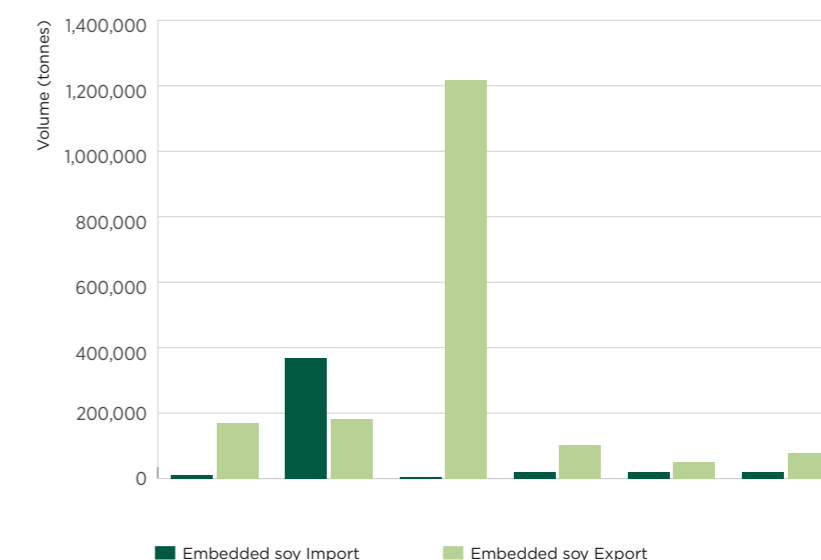
3.9.2 Share of certified DCF soy

Since there is no information regarding the soy bought under specific DCF schemes, the percentage of certified DCF soy was also $0/1,335,446 = 0\%$.

Contribution of the feed industry

It is estimated that the Polish compound feed industry used 2,694,300 tonnes of soybean meal in 2021 (Source: IZBA). There is no information available about the uptake of FEFAC SSG compliant nor certified deforestation and conversion free soy.

Figure 17 Polish import and export of embedded soy in 2021



Source: Eurostat

Table 15 Soybean meal available for the Polish livestock sector

in tonnes	Import	Export	Domestic production	Net available
Soybean meal	2,694,850	97,549		2,597,301
Soybeans x0.8	26,317	6,492	20,970	40,795
Net availability	2,721,167	104,041	20,970	2,638,096

Source: Eurostat



18%
of domestic soybean meal consumption FEFAC SSG compliant

0%
of domestic soybean meal consumption deforestation-free

3.10 Portugal

3.10.1 Share of FEFAC SSG compliant soy

The Portuguese compound feed industry used 213,718 tonnes of FEFAC SSG compliant soy in 2021. All this FEFAC SSG compliant soy is specified to be sourced under the SSAP standard.

There is no additional information from sustainability standards about uptake by other actors in the Portuguese market.

Analysing domestic soybean consumption reveals that $213,718 / 1,157,736 = 18\%$ of the soy in 2021 was FEFAC SSG compliant under a physical chain of custody model.

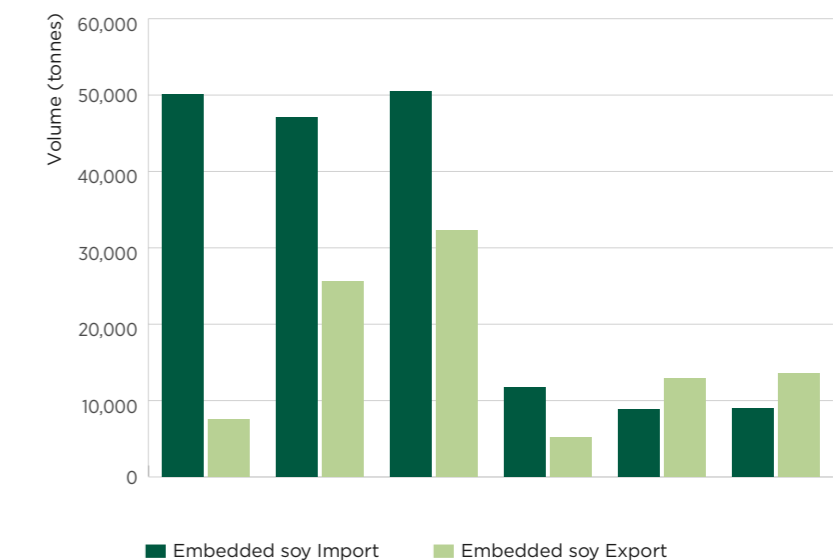
3.10.2 Share of certified DCF soy

Since there is no information regarding the soy bought under specific DCF schemes, the percentage of certified DCF soy was $0 / 1,157,736 = 0\%$.

Contribution of the feed industry

It is estimated that the Portuguese compound feed industry used 805,434 tonnes of soybean meal in 2021 (Source: IACA). Of this volume, 213,718 tonnes of FEFAC SSG compliant soy were used. This corresponds to 29% of FEFAC SSG compliant soy. No certified deforestation and conversion free soy was acquired.

Figure 18 Portuguese import and export of embedded soy in 2021

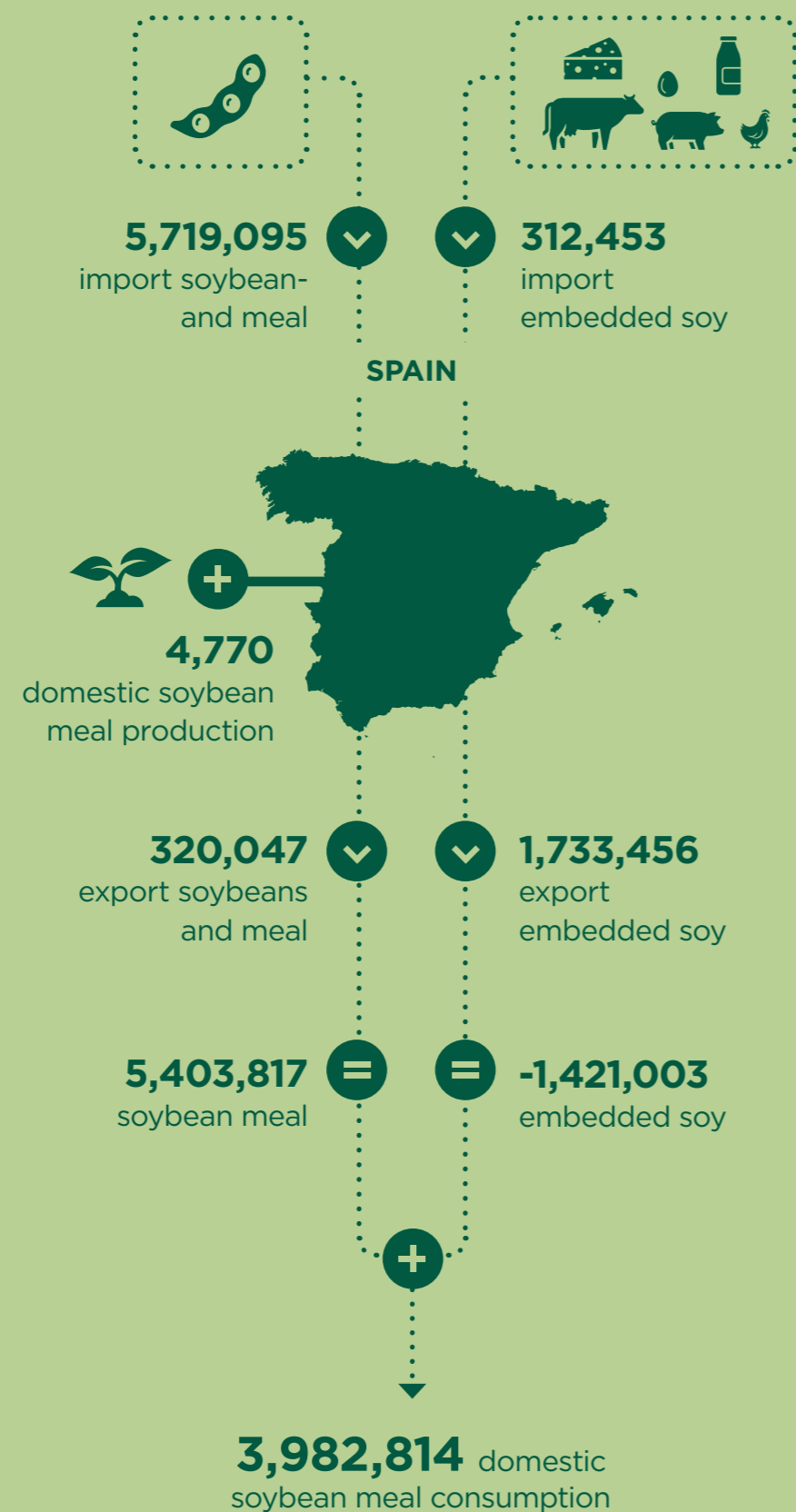


Source: Eurostat

Table 16 Soybean meal available for the Portuguese livestock sector

in tonnes	Import	Export	Net available
Soybean meal	83,219	124,807	-41,588
Soybeans x0.8	1,128,427	9,128	1,119,299
Net availability	1,211,646	133,935	1,077,711

Source: Eurostat



33% of domestic soybean meal consumption FEFAC SSG compliant

1% of domestic soybean meal consumption deforestation-free

3.11 Spain

3.11.1 Share of FEFAC SSG compliant soy

The Spanish compound feed industry used 1,278,252 tonnes of SSAP soy in 2021 (Source: CESFAC).

In addition, RTRS indicated that credits corresponding to 20,020 tonnes of soy are acquired by Spanish stakeholders.

Analysing the domestic soybean meal consumption, $1,298,272 / 3,982,814 = 33\%$ is FEFAC SSG-compliant sourced under the mass balance and the book & claim model.

3.11.2 Share of certified DCF soy

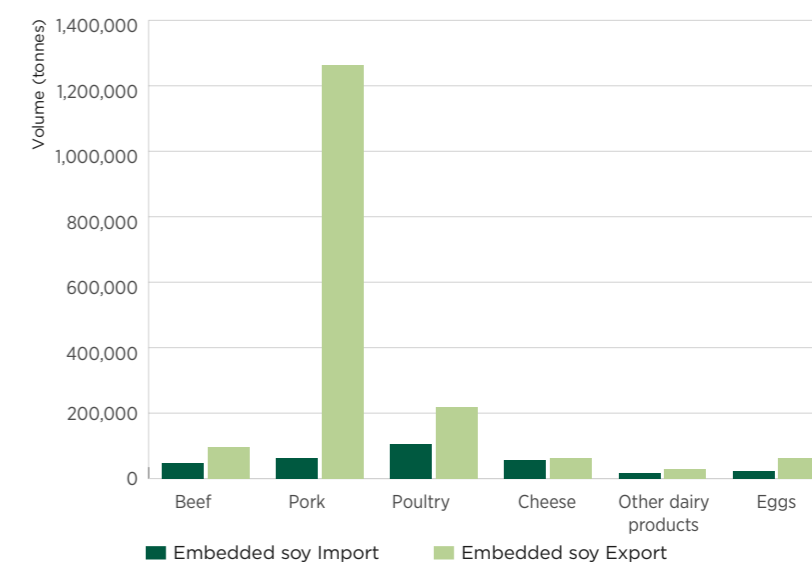
The RTRS standard is included in the Profundo benchmark and as a result $20,020 / 3,982,814 = 1\%$ of domestic consumption in Spain was covered by credits supporting the production of deforestation and conversion-free soy.

In 2021, CESFAC cooperated with IDH to execute a study in to the risk that Spanish soy was produced on deforested or converted lands*. The report assesses data for the years 2016, 2017 and 2018. Apart from reporting different years, the biggest difference between the conclusions from the report and the EU Soy Monitor, is that the EU Soy Monitor reports certified deforestation and conversion-free soy and the report also works with an estimation of soy from low-risk areas.

Contribution of the feed industry

It is estimated that the Spanish compound feed sector used 4,789,479 tonnes of soy in 2021 (Source: CESFAC). Of this total volume, 1,278,252 tonnes were sourced under the SSAP standard. This corresponds to 27% FEFAC SSG compliant soy sourced under a chain of custody model.

Figure 19 Spanish import and export of embedded soy in 2021



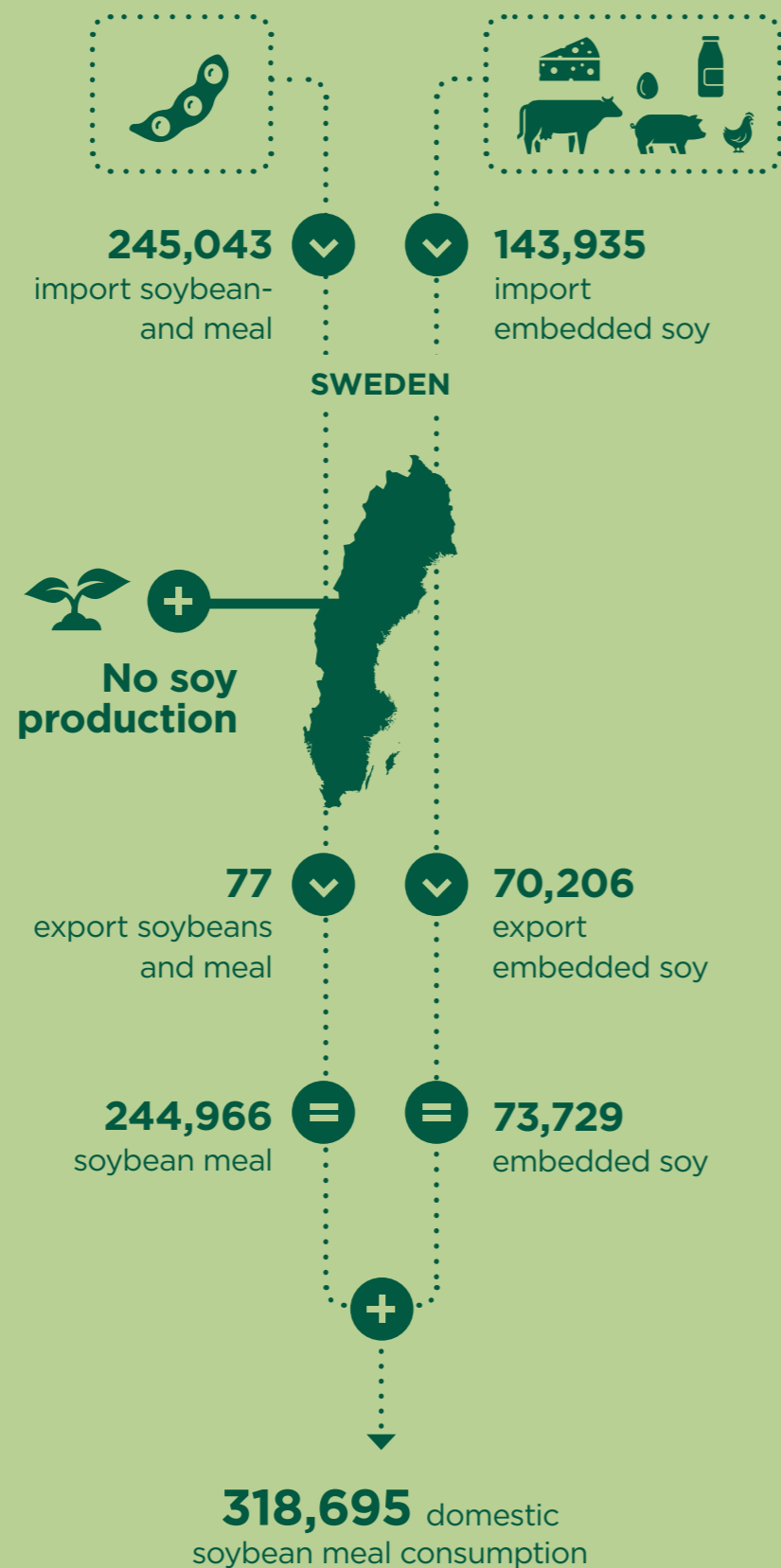
Source: Eurostat

Table 17 Soybean meal available for the Spanish livestock sector

in tonnes	Import	Export	Domestic production	Net available
Soybean meal	2,793,458	312,032		2,481,426
Soybeans x0.8	2,925,637	8,016	4,770	2,922,391
Net availability	5,719,095	320,047		5,403,817

Source: Eurostat

*https://cesfac.es/media/attachments/2021/07/07/study_sustainable_soy_for_a_responsible_supply_compound_feed_-final.pdf



87%
of domestic soybean meal consumption FEFAC SSG complaint

87%
of domestic soybean meal consumption deforestation-free

3.12 Sweden

3.12.1 Share of FEFAC SSG compliant soy

In Sweden, 242,400 tonnes of soy used have been sourced in line with the FEFAC SSG (Source: Föreningen Foder & Spannmål). This soy is Proterra certified via one plant in Norway, Proterra certified via other suppliers, verified RTRS compliant soy from Canada, organic or Donau Soja/Europe soya certified.

In addition, RTRS credits supporting responsible soy are acquired by Swedish stakeholders covering 34,245 tonnes of soy.

The total uptake of FEFAC SSG compliant soy in the form of credits supporting responsible soy in Sweden is $276,645 / 318,695 = 87\%$.

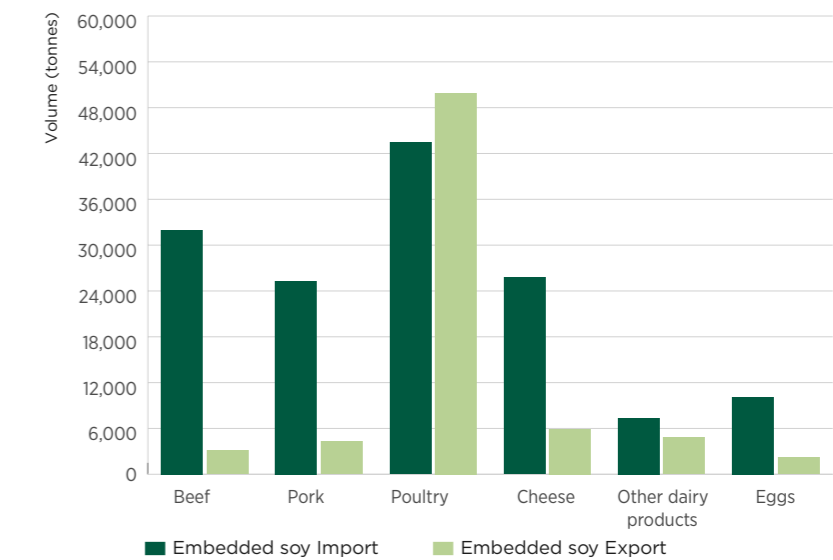
3.12.2 Share of certified DCF soy

All soy standards mentioned in the previous paragraph are also assumed to deliver deforestation and conversion-free soy or to support DCF soy production via credits. Therefore, $276,645 / 318,695 = 87\%$ of the soy in 2021 was certified deforestation and conversion free or supporting DCF soy production via credits.

Contribution of the feed industry

It is estimated that the Swedish compound feed industry used 242,000 tonnes of soy in 2021. Of this volume, 242,400 tonnes of soy have been sourced in line with the FEFAC SSG (Source: Föreningen Foder & Spannmål). This means that more than 100% of the soy was FEFAC SSG compliant. The same volume may be regarded as contributing to deforestation and conversion-free soy.

Figure 20 Swedish import and export of embedded soy in 2021

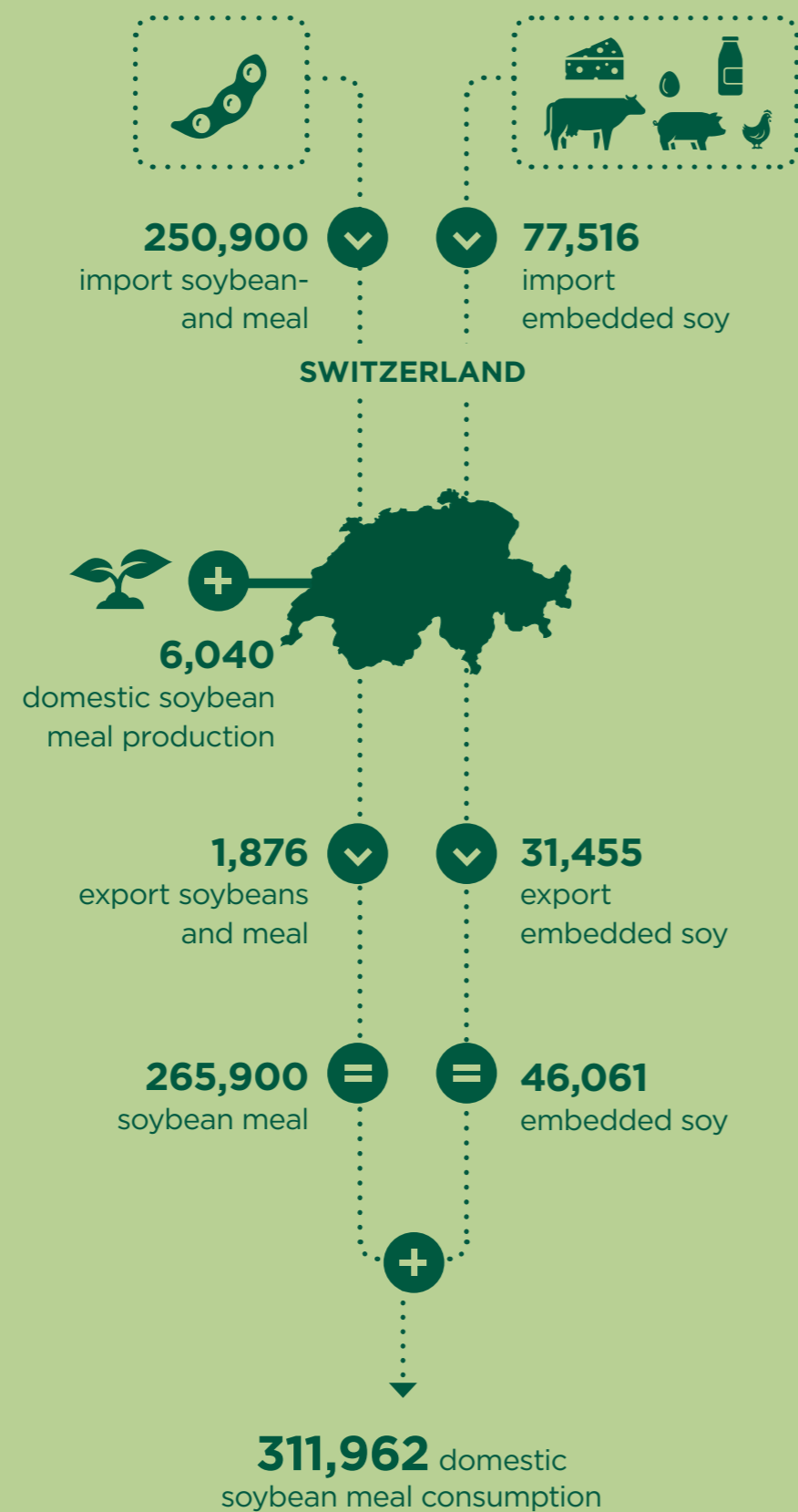


Source: Eurostat

Table 18 Soybean meal available for the Swedish livestock sector

in tonnes	Import	Export	Net available
Soybean meal	225,070	0	225,070
Soybeans x0.8	19,973	77	19,896
Net availability	245,043	77	244,966

Source: Eurostat



75%
of domestic soybean meal consumption FEFAC SSG compliant

70%
of domestic soybean meal consumption deforestation-free

3.13 Switzerland

3.13.1 Share of FEFAC SSG compliant soy

In Switzerland, 238,956 tonnes of soy have been sourced under one of the FEFAC SSG compliant standards (Source: VSF). Of this 238,956 tonnes, 1,409 tonnes soy were bought under Donau Soja, 52,826 under Europe Soy, 89,271 under ISCC+, 78,450 under Proterra, 1,000 tonnes under RTRS certification and 16,000 tonnes under Bio Suisse.

These volumes of FEFAC SSG have also been confirmed by the Swiss Soy network.

Assessing domestic soybean meal consumption, the total uptake of FEFAC SSG compliant soy in Switzerland is 238,956/318,695 is 75%.

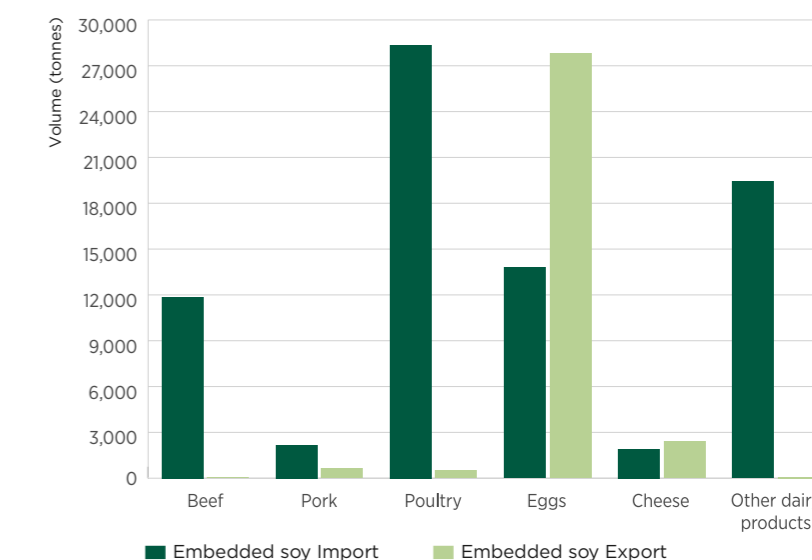
3.13.2 Share of certified DCF soy

Five out of the six standards mentioned in 3.13.1 are also assumed to deliver certified DCF soy. This means that the percentage of certified DCF was 222,956/318,695 = 70%

Contribution of the feed industry

It is estimated that the Swiss compound feed industry uses 258,110 tonnes of soy. Of this, 238,956 tonnes have been sourced under a FEFAC SSG compliant standard, corresponding to 93% of the total. In total, 222,956/258,110 = 86% is certified deforestation and conversion-free.

Figure 21 Import and export of embedded soy to and from Switzerland



Source: Comtrade

Table 19 Import and export of soybean products to Switzerland

in tonnes	Import	Export	Net available
Soybean meal	250,900	1,876	249,024
Soybeans x0.8	10,957	120	16,876
Net availability	261,856	1,996	265,900

Source: SwissImpex and Comtrade



29%
of domestic soybean meal consumption FEFAC SSG compliant

22%
of domestic soybean meal consumption deforestation-free

3.14 United Kingdom

3.14.1 Share of FEFAC SSG compliant soy

In the United Kingdom, the UK Round Table on Responsible Soya is a multistakeholder initiative that stimulates the uptake of deforestation and conversion free soy. Their annual report provides detailed insights into the update of FEFAC SSG compliant soy.

The annual report by the UK Round Table on Responsible Soya concluded that in 2021, 602,262 tonnes of soy were covered with credits from FEFAC SSG complaint standards and 193,350 tonnes of soy were sourced under mass balance, mass balance and segregated chain of custody models from FEFAC SSG compliant soy standards, totalling to 795,612 tonnes of certified soy (feed and food). The figures provided by AIC, the feed association, align with the figures of the Roundtable.

Analysing domestic soybean consumption in the United Kingdom reveals that $795,612 / 2,753,990 = 29\%$ of the soy in 2021 was FEFAC SSG compliant, either via credits supporting responsible soy or physical supply chain models.

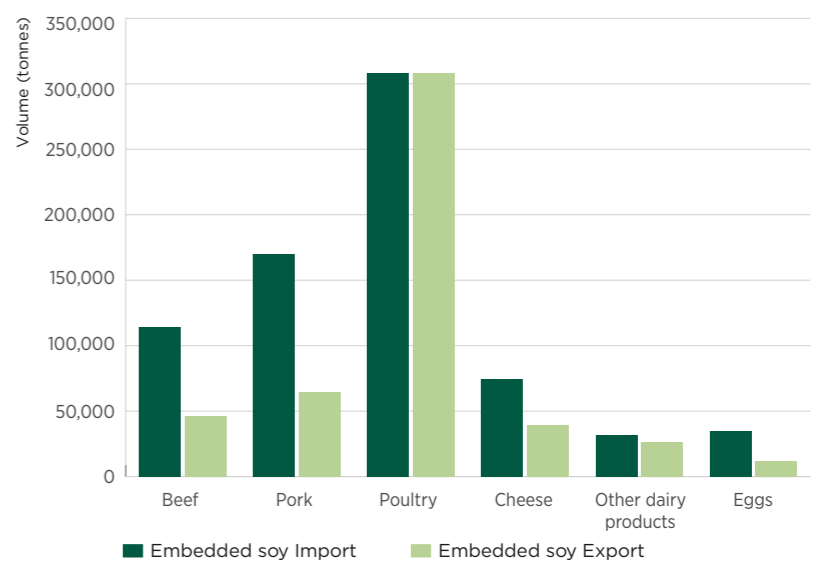
3.14.2 Share of certified DCF soy

Although there is no information available about the specific standards under which the soy is sourced, all standards mentioned in the Roundtable report that offer credits supporting responsible soy (RTRS, CRS, and SFAP non conversion) are also considered to deliver DCF soy by the Profundo benchmark. Therefore $602,262 / 2,753,990 = 22\%$ of soy is covered by credits supporting deforestation and conversion-free soy.

Contribution of the feed industry

It is estimated that the compound feed industry in the United Kingdom used 2,274,095 tonnes of soybean meal in 2021. Of this, 736,748 tonnes have been sourced under a FEFAC SSG compliant standard, corresponding to 32% of the total.

Figure 22 United Kingdom's import and export of embedded soy in 2021



Source: Eurostat

Table 20 Soybean meal available for the livestock sector in the United Kingdom

in tonnes	Import	Export	Net available
Soybean meal	2,143,649	94,045	2,049,604
Soybeans x0.8	467,016	413	466,602
Net availability	2,610,665	94,459	2,516,206

Source: Eurostat



4 Conclusions

The uptake of FEFAC SSG compliant and certified DCF soy decreased slightly compared to 2020. Differences between countries in the EU27+ continue to exist and little convergence can be observed. This final chapter provides the main conclusions of the European Soy Monitor 2021.

4.1 Conclusions

The European Soy Monitor 2021 shows that 40% of the EU27+ soy consumption was certified under a FEFAC SSG compliant standard via a credit-based or a physical supply chain model. Of the EU27+ soy consumption, 24% was certified deforestation and conversion-free or covered by credits supporting deforestation and conversion-free production. Compared to last year, both figures are slightly lower. The country specific data indicate that big differences continue to exist between countries.

Stable uptake of responsible soy

Part of the 14.3 million tonnes of soy that is considered FEFAC SSG compliant is sourced via a physical chain of custody model and part is covered by credits supporting responsible soy. An estimated 19% is traded via the segregated chain of custody model, 43% is traded via the mass balance model and 38% is covered by sustainability credits supporting responsible soy.

Although 17 standards were FEFAC SSG compliant in 2021, only seven standards provided information. RTRS, SSAP, Donau Soja, CRS and SFAP show an increase in certification and in sales to market actors in the EU27+. For ProTerra and ISCC, a decline can be observed. None of the traders, except for Cefetra, provided data about their company-owned FEFAC SSG compliant soy standard. Amaggi informed us that their own soy standard was discontinued and transformed in a traceability based approach called ORIGINS.

Large differences between countries

The country specific data shows a mixed picture throughout Europe. In some countries the feed sector takes the lead, in other countries food companies actively invest in responsible soy, for instance by acquiring credits. Some countries have collective commitments and work together on the transition, others do not. The section below provides a short assessment of the different countries.

The Netherlands, Belgium and Norway source more than 100% of their soy consumption under a FEFAC SSG compliant, deforestation and conversion-free soy standard. In Belgium and the Netherlands, the total soy footprint is covered by credits supporting responsible soy. In Norway, the soy used in aquaculture and compound feed is FEFAC SSG compliant and deforestation and conversion-free, sourced via the segregated chain of custody model.

Sweden, Denmark and Germany source more than 80% of their soy consumption under a FEFAC SSG compliant standard and more than 50% under a standard that offers deforestation and conversion free soy. In Denmark and Germany, also food companies are actively investing in responsible soy via the acquisition of credits supporting responsible soy or by buying segregated sustainable, non-gmo soy. Sweden is, like Norway, committed to sourcing physical deforestation and conversion-free soy with a large share of Proterra soy in the supply chain.

In Switzerland, the Swiss Soy Network is promoting the import of sustainable soybeans. In the EU Soy Monitor more than 75% of the soy consumption is FEFAC SSG compliant and deforestation and conversion-free.

France and Finland source more than 50% in line with the FEFAC SSG. In Finland also the percentage of deforestation and conversion-free soy is above 50%, for France this is not the case. In Finland, companies from both food and feed are acquiring RTRS credits supporting responsible soy and in a relatively small sector this results in a high percentage FEFAC SSG compliant soy. In France, the Duralim initiative supports the uptake of responsible soy although the impact on sourcing soy that is certified under one of the FEFAC SSG compliant standards can only be expected later.

Then there is a big group of countries such as Spain, Portugal, Italy and the United Kingdom that source around 30% of their soy consumption under a FEFAC SSG compliant standard.

Many southern feed associations reported a lack of market demand for certified soy as a reason for a lower uptake, in addition to a market with many small players making reporting very challenging. The United Kingdom, like Spain and France, adopt a risk-based approach to responsible soy – focusing more on lowering the risk of deforestation and conversion than on sourcing certified sustainable soy. For Poland no data were available.

Data availability remains challenging

It is important to mention that data availability is still very challenging. The underlying information obtained from the feed associations is not always complete and often only aggregated numbers are provided. There are different reasons for that. In some cases, the number of market players in a country is so small that sharing information is competitively sensitive. In other cases, the market has so many small players that data collection is challenging. For others, data collection is not a priority. In the European Soy Monitor, only the volumes reported under a specific standard have been included in the calculations. One could argue that this results in a rather conservative estimation of FEFAC SSG compliant soy.

There are multiple routes to responsible soy

In addition to certification, a divergence of solutions can be observed in the soy market, ranging from landscape initiatives to clean supplier approaches. All potentially have a place in the transition to deforestation and conversion-free soy as also illustrated in the Magicube model developed by CSI and Proforest. These different solutions should be complementary rather than competing. Interesting innovative initiatives, such as the ones highlighted throughout this report, are developed with a potential to make impact at scale. However, critical assessments of the true impact of these transition paths remains of fundamental importance.

References

1. FAOSTAT. (n.d.). <https://www.fao.org/faostat/en/#data/QCL>
2. FAOSTAT. (n.d.). <https://www.fao.org/faostat/en/#data/QCL>
3. Patton, D. (2023, April 14). Food security drives China to cut soy meal use in animal feed. Reuters. <https://www.reuters.com/world/china/food-security-drives-china-cut-soy-meal-use-animal-feed-2023-04-14/#:~:text=The%20new%20plan%20proposes%20soy%20meal,industry%20recommending%20lower%20soy%20meal%20ratios>
4. Arita, S., Grant, J., Sydow, S., & Beckman, J. (2021, May). Has Global Agricultural Trade Been Resilient Under Coronavirus (COVID-19)? Findings From an Econometric Assessment. U.S. DEPARTMENT OF AGRICULTURE. <https://www.usda.gov/sites/default/files/documents/Covid19-and-Trade-OCEworkingpaper-USA.pdf>
5. FAOSTAT. (n.d.). <https://www.fao.org/faostat/en/#data/QCL>
6. Reuters. (2021, April 21). Reshaping grain trade? China moves to change animal feed recipes. Reuters. <https://www.reuters.com/world/china/reshaping-grain-trade-china-moves-change-animal-feed-recipes-2021-04-21/>
7. FAOSTAT. (n.d.). <https://www.fao.org/faostat/en/#data/QCL>
8. FAOSTAT. (n.d.). <https://www.fao.org/faostat/en/#data/QCL>
9. <https://www.gov.br/inpe/pt-br/assuntos/ultimas-noticias/divulgacao-de-dados-prodes.pdf>
10. Estimativa de desmatamento por corte raso na Amazônia Legal para 2021 é de 13.235 km². (2018, October). Gov. br. <https://www.gov.br/inpe/pt-br/assuntos/ultimas-noticias/divulgacao-de-dados-prodes.pdf>
11. Cuadros, A. (2023, June 15). Has the Amazon Reached Its 'Tipping Point'? The New York Times. <https://www.nytimes.com/2023/01/04/magazine/amazon-tipping-point.html>
12. Gatti, L. V., Basso, L. S., Miller, J. M., Gloor, M., Domingues, L. G., Cassol, H. L. G., Tejada, G., Aragão, L. E. O. C., Nobre, C. A., Peters, W., Marani, L., Arai, E., Sanchez, A., Marques, S. C., Anderson, L. O., Von Randow, C., Correia, C. S. C., Crispim, S. P., & Neves, R. A. (2021). Amazonia as a carbon source linked to deforestation and climate change. *Nature*, 595(7867), 388–393. <https://doi.org/10.1038/s41586-021-03629-6>
13. TerraBrasilis. (n.d.). <http://terrabrasilis.dpi.inpe.br/app/dashboard/deforestation/biomes/cerrado/increments>
14. Pereira, C. V., & Fernandes, G. W. (2022). Cerrado conservation is key to the water crisis. *Science*, 377(6603), 270. <https://doi.org/10.1126/science.add4719>
15. GRAN CHACO, 22 AÑOS DE CAMBIOS EN LA COBERTURA Y USO DEL SUELO. (2022, November). Map Biomas. https://mapbiomas-br-site.s3.amazonaws.com/Fact_Sheet_Chaco_Col_3.0_2022.pdf
16. Data Browser. (n.d.). EuroStat. https://ec.europa.eu/eurostat/databrowser/view/APRO_CPSH1_custom_2041733/default/table?lang=en
17. Germany: 3,598 ADM responsible soy, 32,472 Bunge Pro-S,
18. Belgium: 30,000 Agricultura Sostenible Certificada.
19. Setting the bar for deforestation-free soy in Europe. (2019, June). Profundo. <https://www.profundo.nl/download/iucn1906>
20. MapBiomas Chaco <https://chaco.mapbiomas.org/>

Resources

Collaborative Soy Initiative & Proforest (2021). The multiple routes to responsible sourcing: Combining the best of approaches for conversion free sustainable soy (Version 1.0) [PDF]. <https://thecollaborativesoyinitiative.info/storage/files/csi-and-proforest-2021the-multiple-routes-to-sustainable-sourcing-nov-18-20211.pdf>

FEFAC (2021). FEFAC soy sourcing guidelines 2021. <https://fefac.eu/wp-content/uploads/2021/02/FEFAC-Soy-Sourcing-Guidelines-2021-1.pdf>

IDH/SourceUp (2021), Making Commodity Sourcing More Sustainable With SourceUp | Home. (n.d.). <https://sourceup.org/>

Soft Commodities Forum (2022), Progress report December 2021, <https://www.wbcso.org/content/wbcso/download/13466/196579/1>

Profundo. (2019). Setting the bar for deforestation-free soy in Europe; A benchmark to assess the suitability of voluntary standard systems. <https://www.profundo.nl/download/iucn1906>

Profundo (2023), Setting a new bar for deforestation- and conversion-free soy in Europe. Profundo: Amsterdam. https://www.iucn.nl/app/uploads/2023/08/Setting-a-new-Bar-for-Conversion-free-Soy-in-Europe_August-2023.pdf

ProTerra Foundation. (2021, May 31). Soy vendors to the salmon industry end trade of deforestation linked soy in Brazil - ProTerra Foundation. ProTerra Foundation. <https://www.proterrafoundation.org/news/soy-vendors-to-the-salmon-industry-end-trade-of-deforestation-linked-soy-in-brazil/>

The Manifesto | The UK Soy Manifesto. (n.d.). <https://www.uksoymanifesto.uk/>



Schuttelaar & Partners is the agency
for a healthy and sustainable world.