



Achieving verified deforestation and conversion free soy feed in Europe

2021 Collective European retail and food service soy initiative to increase transparency and sustainability in the global soy market



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Key Findings

1

Supply chains are not ready for due diligence

Governments are shifting ever closer to finalising due diligence legislation for forest-risk commodities in the UK, EU and USA. This would put a legal requirement on those downstream in the supply chain to prove that soy has been produced responsibly, for example by using risk-monitoring mechanisms proving negligible risk of deforestation and land conversion. However, supply chains are not yet ready to incorporate this legislation, and systematic change is needed across all actors of the supply chain to meet requirements. A key obstacle is the lack of information flowing down the supply chain on origin, and deforestation and conversion free guarantees.

2

Certification is still the primary mechanism for sustainable soy, but this doesn't go far enough

Certification has long been the go-to mechanism for end-users of soy to ensure sustainability. Whilst certification remains an important tool towards achieving sustainable soy, it is not a standalone solution, particularly given the reliance on credits for many certified soy users. The expectation has evolved to go beyond certification to ensure that soy can be physically traceable and verified deforestation and conversion free, and that soy users invest in landscape programmes in the regions where they source.

3

Retailers looking for greater confidence in reported soy figures

Retailers and food companies, under pressure from NGO expectations and upcoming due diligence legislation, are looking to have assurance on their public reporting on soy origin, certification, and sustainability claims. Most companies in the supply chain are not yet able to provide sufficient evidence to support soy sourcing claims

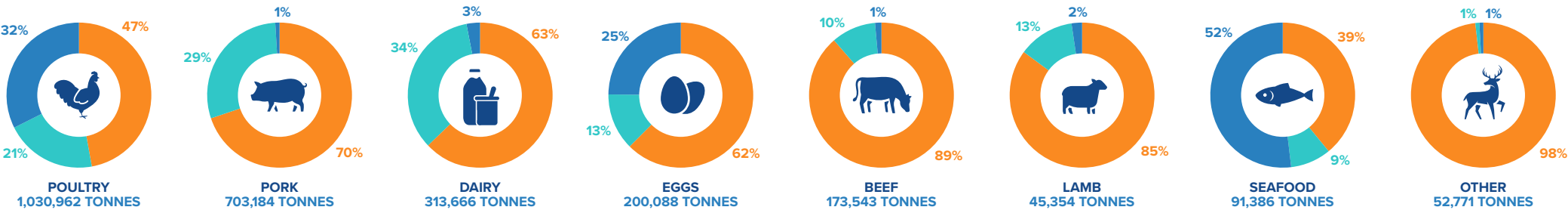
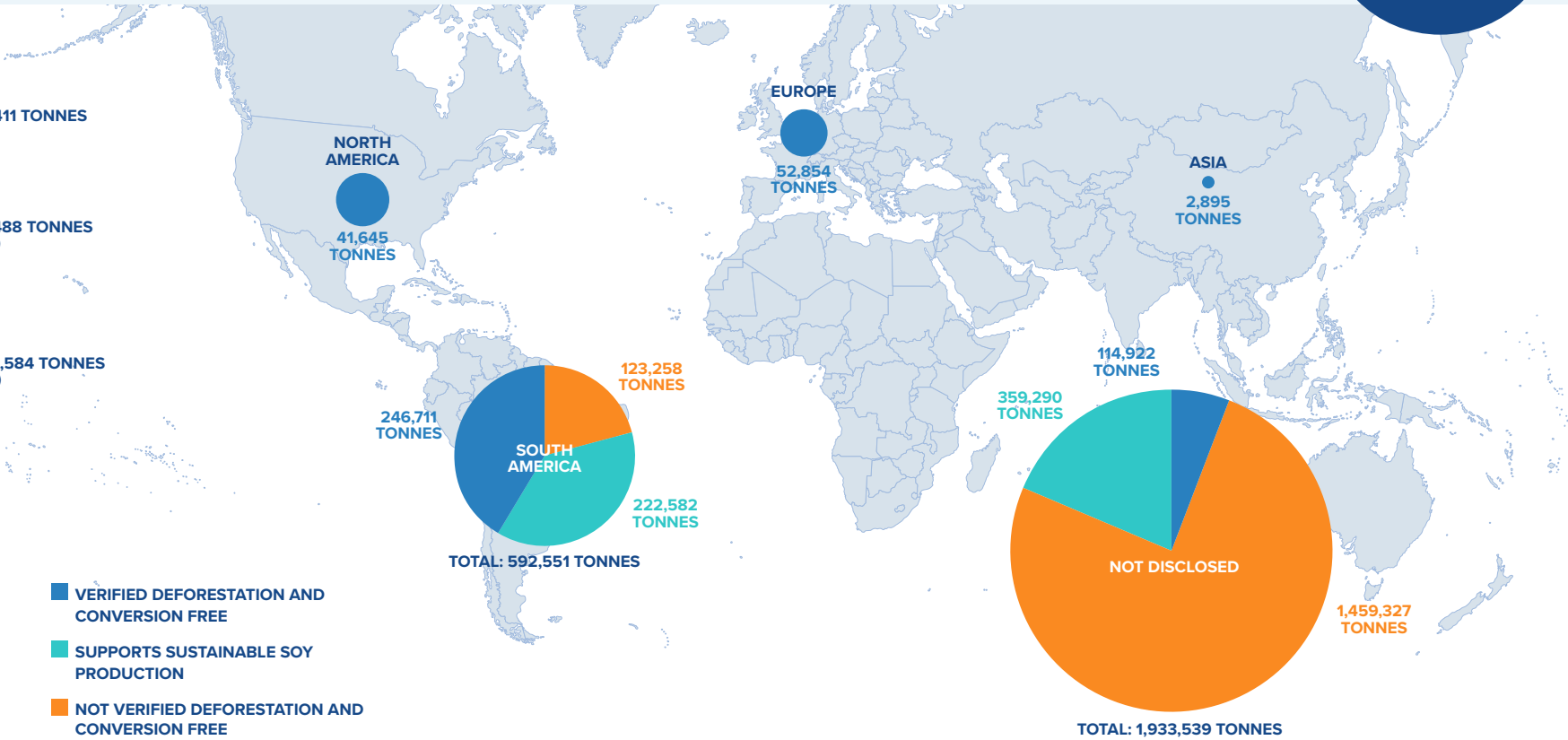
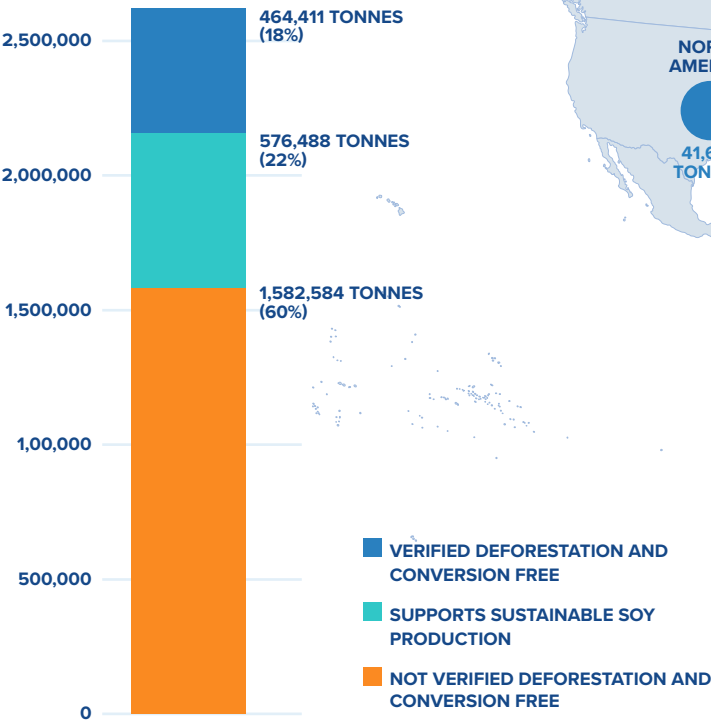
See pages 27 – 29 for findings specific to industry, retailers and food sector.

2021 Soymeal Footprint

Key findings from an assessment of the livestock supply chains from more than 12 retail and food service companies across the UK and Europe

2.6 million tonnes

Soy footprint



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Background

A milestone year for change



Why does Europe import lots of soy?

The majority of soy within Western diets is consumed 'indirectly' as soy meal through its use as a protein source in animal feed. The European Union imports most soy from South America, of which 90% is used in animal feed, particularly for poultry and pork.



What is the challenge?

Governments and companies are coming under increasing pressure to address levels of deforestation and land conversion associated with soy production in South America. This has led to a number of developments, many of which are evolving at the time of writing this report, such as proposed due diligence legislation and a rise of multi-stakeholder initiatives to bring together expertise and actors across the supply chain to achieve positive change.



Why do retailers and food services come together to publish a soy report?

For four years running, 3Keel has worked with key European retailers, and now also food service, to collect and report on data from their supply chains. The approach taken each year is consistent, meaning that trends can be identified, analysed and publicly reported. The collective aim is to increase the level of transparency on soy use in European supply chains, and work together to accelerate achieving a food system where soy in animal feed is verified deforestation and conversion free. See page 8 for more information on the report approach.

Key events in 2021

1

Due diligence

Legislative change is on the way in the EU, UK and USA which will put requirements on those at the end of the supply chain to provide transparency that soy used is produced responsibly. The EU published a directive on due diligence at the start of 2022 that would apply to large businesses and non-EU corporations with significant roles in EU supply chains. In the UK, the government has published a progress update in which they outlined that secondary legislation will be put in place to implement due diligence 'at the earliest opportunity', covering only large corporations, and with thresholds set per commodity.

2

Manifestos

2021 saw an uptick in collective industry initiatives, with manifestos launching in the UK, France and the Netherlands. For example, The UK Soy Manifesto requires members to implement a cut-off date of January 2020 for deforestation and land conversion for soy used in their supply chains, by 2025, along with regular reporting on commitments from members. Members of soy manifesto groups are now cascading this 'ask' down their own supply chains by engaging with suppliers to ensure a 2025 target can be met.

3

Move from 'clean supply chain' to 'supply chain of responsible suppliers'

Among companies pushing for positive change, there is a greater impetus for a 'responsible' approach, whereby suppliers use solely responsible soy in their whole supply chain, not just volumes supplied to specific customers who ask for it. This means individual companies are pushing for change outside their own supply chain, rather than addressing just their direct volumes.

4

2021 FEFAC sourcing guidelines

FEFAC (The European Compound Feed Manufacturers' Federation) launched 2021 Soy Sourcing Guidelines for feed operators and chain partners who wish to source their soy in accordance with the European feed industry's requirements for responsible soy. The guideline's 73 criteria come under 6 pillars:

- Legal compliance
- Responsible working conditions
- Environmental responsibility
- Good agricultural practices
- Respect for legal land use
- Protection of community relations

Soy certification scheme owners voluntarily benchmark their own standards against the criteria to be independently assessed as compliant.

Approach

How soy is assessed deforestation and conversion free

An established and consistent approach to soy meal reporting

For the fourth year running, UK and EU companies have come together to gather information and share transparency on the soy meal used in the feed within their supply chains. The nine European retailers and one food service company all worked with 3Keel as the facilitator for this standardised process, to answer three questions:



How much soy?

The quantity of soy meal embedded in the products sold



From where?

Which trader and country produced the soy meal in supply chains



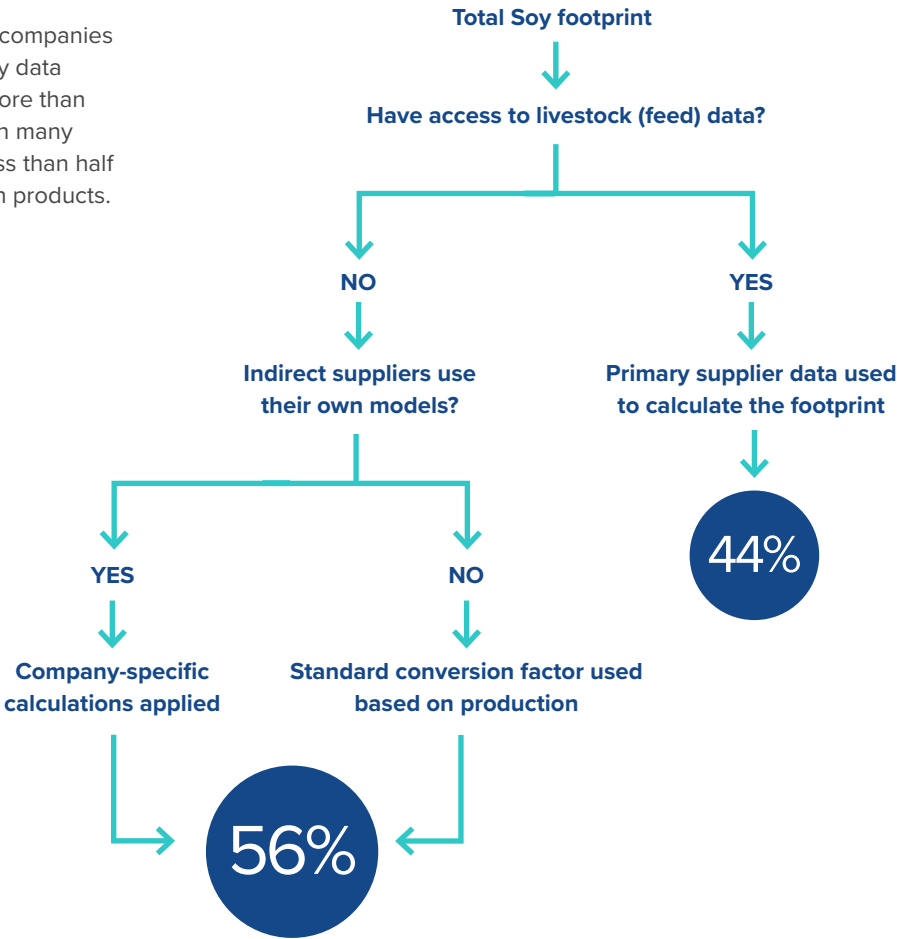
Risk of deforestation and land conversion?

How much is verified deforestation and conversion free, for example through certification?

Almost half of the soy reported has come directly from supplier calculations

This year, a total of 675 companies were engaged in the soy data collection, this is 35% more than previous years. Although many companies engaged, less than half actually found soy within products.

675 Companies Reported



How can companies achieve deforestation and conversion free soy?

Route 1: Certification

Some certification schemes ensure soy sustainability, but these currently only cover a small volume of total soy production. The most prominent certification schemes are ProTerra and the Round Table on Responsible Soy (RTRS), which cover 1.2% and 1% of global production respectively. Certification has received criticism for being an insufficient standalone mechanism for change, and several traders set up their own proprietary soy certification schemes.



Route 2: Responsible supply chain

End users of soy can ensure they have a supply chain of 'responsible suppliers', where there is full commitment from trader to the retailer to verify that soy is deforestation- and conversion-free. Additionally, there must be a credible monitoring, reporting and verification system in place. Examples of how producers and traders can achieve this are by sharing information on origin down the supply chain, certification (see left), or satellite monitoring image verifications. See page 13 for ProTerra's response to monitoring, reporting and verification of purchasing controls.



Route 3: Traceable to a low-risk origin

Traders of soy can provide guarantees to end users that soy has a low risk for deforestation and land conversion at a national or subnational level. For example, soy from the USA may be considered low risk, whereas soy from Brazil would only be considered low risk if from certain municipalities.



SOY

Deforestation free ☒
Conversion free ☒

How is certification evidence classified?

VERIFIED DEFORESTATION AND CONVERSION FREE

Only achieved by mechanisms showing physical flows of materials, whether due to certification, low risk origins, or a fully committed supply chain. For Mass Balance or Segregated claims, evidence must prove full chain of custody of the certified materials and exclusive allocation of certified materials to a retailer or customer.

SUPPORTING SUSTAINABLE SOY PRODUCTION

The reporting company has supplied some evidence demonstrating certified certificates or credits have been purchased, but this is not segregated or from a scheme benchmarked to the FEFAC soy sourcing guidelines.

	Mechanism	Evidence	VERIFIED DEFORESTATION & CONVERSION FREE	SUPPORTING SUSTAINABLE SOY PRODUCTION	NO CLAIM FOR DEFORESTATION FREE
FEFAC deforestation and conversion free benchmarked standards	Segregated	Site certification of reporting company	✓	✓	
		Exclusive allocation from certified supplier to reporting company	✓	✓	
		Site certificate provided			✓
	Mass Balance*	Site certification of reporting company	✓*	✓	
		Exclusive allocation from certified supplier to reporting company	✓*	✓	
		Site certificate provided			✓
Book and Claim	Credits Certificates Area Mass Balance	Transferred to retailer (RTRS only)		✓	
		Reporting company association (e.g. RTRS account, named on certificate)		✓	
		Direct supplier purchased certificates		✓	
		Indirect supplier purchased certificates			✓
		Sector initiative		✓	
		Statement of intent			✓
Organic		South American origin			✓
		Other origin	✓		
Origin		Trader or feed supplier declaration	✓		

*Mass Balance is often considered a transition route to 100% physical verification.

How is origin evidence assessed?

Companies are increasingly requiring soy to be deforestation and conversion free to fulfil soy sourcing policies. As part of the validation process, suppliers were required to provide evidence of the soy origin or certification claims. In general, this was easier for companies with consolidated supply chains. Many companies were unable to provide the requested documentation due to issues of it not flowing through the supply chain, rather than a lack of desire. Five classifications were used to assess origin claims.

	Not applicable	No origin was disclosed in the declaration, and therefore no evidence was required.
	None provided	Origin(s) claimed as part of the declaration, but the supplier stated they were unable to provide any evidence linked to their company or feed manufacturer.
	Insufficient	Evidence has only been provided to show a list of potential origins, but not show the proportional split of the volumes coming from these sources.
	Good	Public company policy specifying that soy is only sourced from specified origins. Alternatively a letter from the named feed supplier specifying origin of materials with exact volumes or proportional split.
	Fully evident	Certification tied to a specific origin (e.g. Donau Soja, USSEC) with documentation to demonstrate these materials flowing into the reporting company supply chain. Alternatively, an invoice from the feed manufacturer specifying the origin of the materials being sold to the named livestock producer/reporting company.

Case study

ProTerra's monitoring, reporting and verification of company commitments

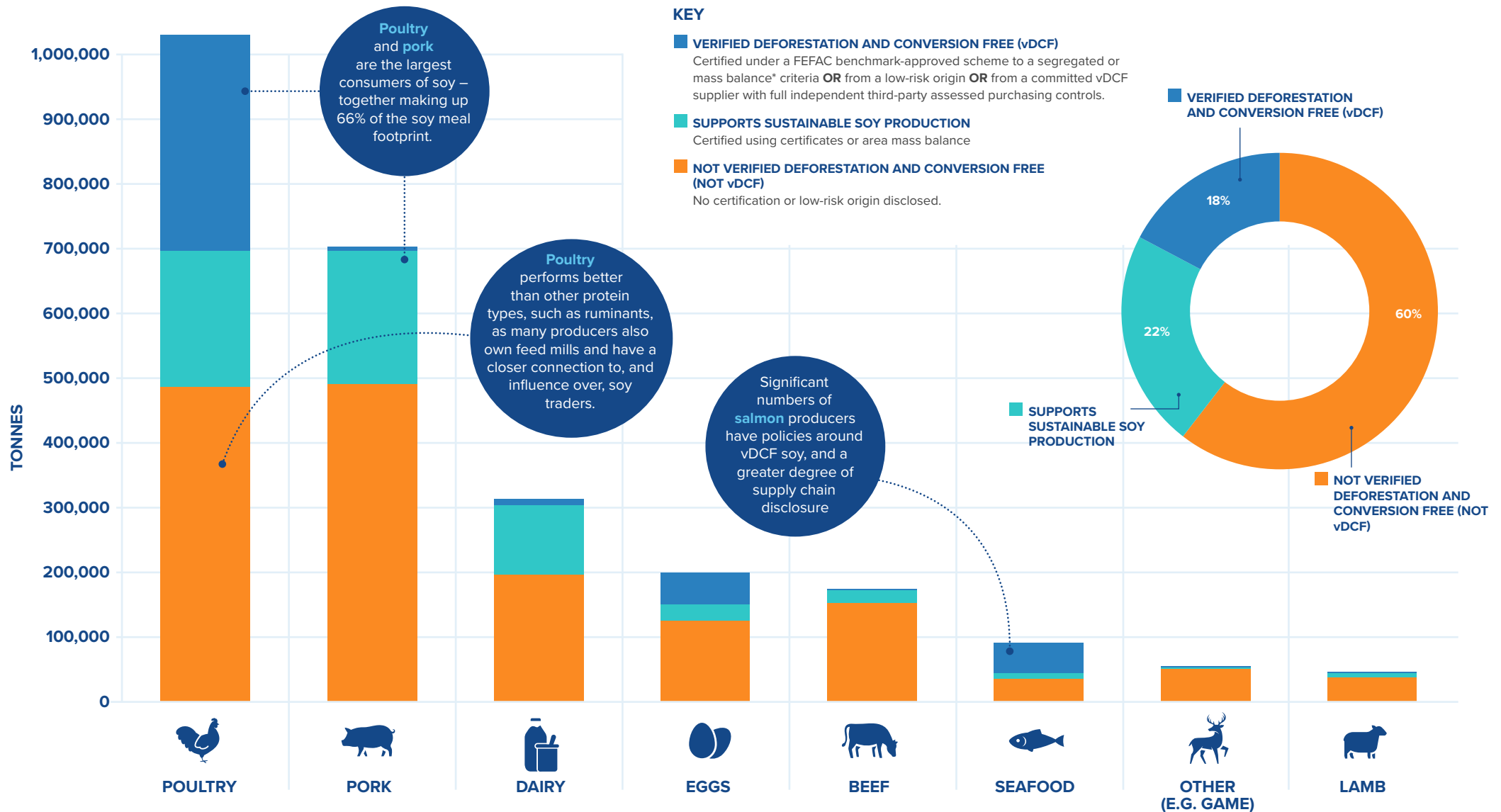
In November 2022, Proterra released details of the approach to monitoring, reporting and verification as they work towards their commitment of achieving deforestation and conversion free soy. Independent auditors annually review of the effectiveness of supplier procurement controls to ensure only approved purchases of soy are made. Companies must have controls against issues such as slave labour and purchasing from indigenous land, as well as monitoring tools such as satellite monitoring and polygon sourcing locations. Reviews and approves competency of auditor and the results. The Proterra Secretariat meets quarterly to review and approve the competency of auditor and the results. Further to this, a Proterra Steering Committee meets at least quarterly to review the findings of outcomes of the auditing process and to develop solutions to implementation challenges.



Results

State of the soy in European livestock feed

2021 Soymeal Footprint – 2.6 million tonnes



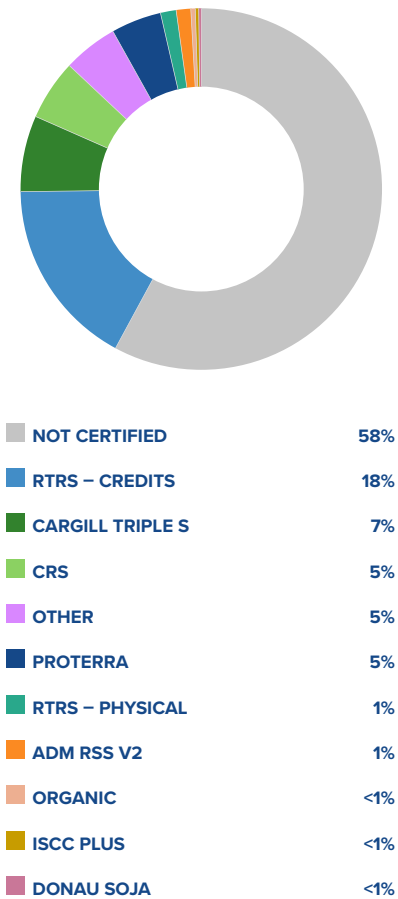
*Mass Balance is often considered a transition route to 100% physically verification.

Certification increases, but with an over-reliance on credits and mass balance

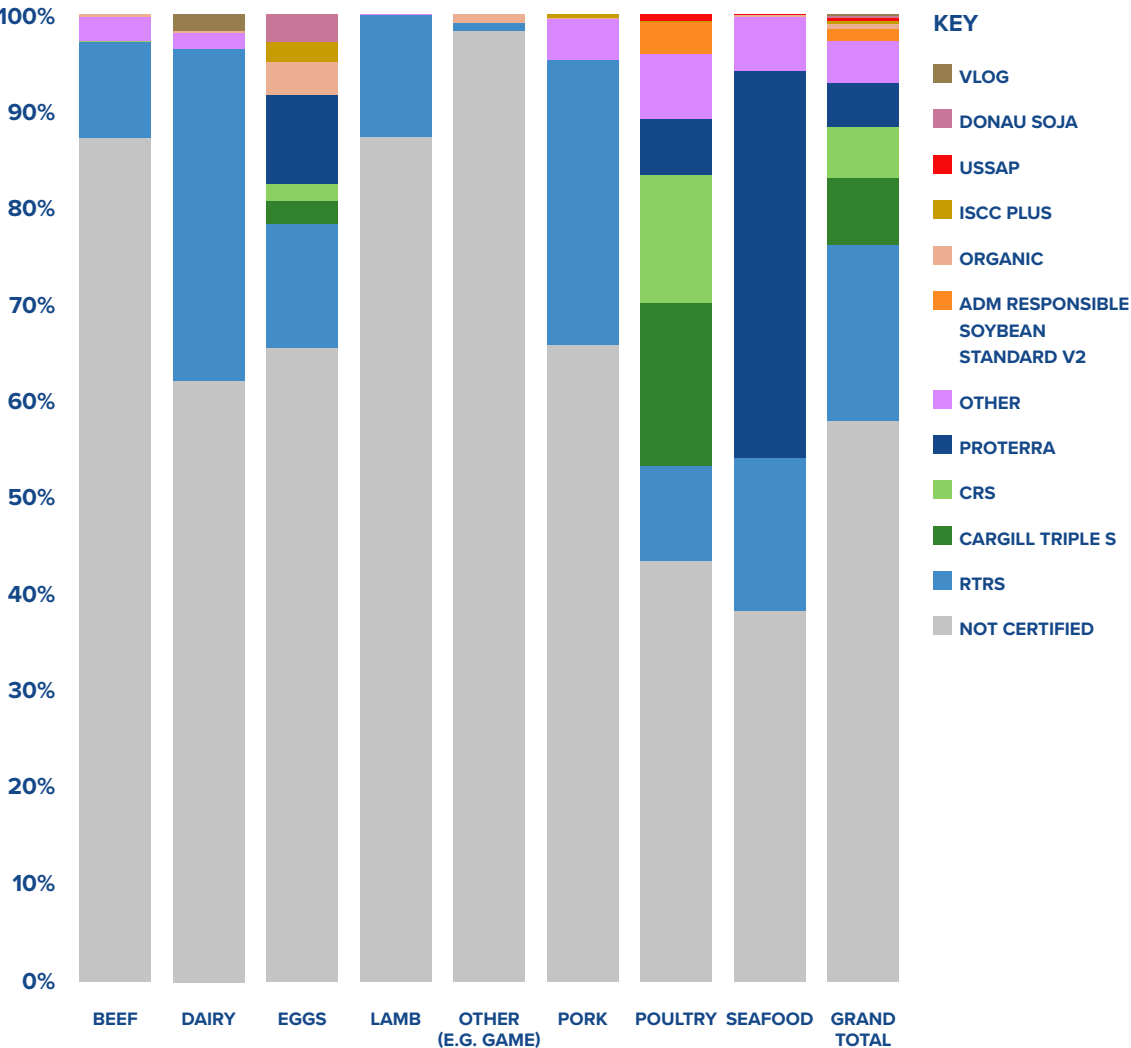
- ➔ Certification levels are increasing: 42% in 2021 compared to 38% in 2020.
- ➔ But most certification is falling under book and claim or area mass balance. Physically segregated certified volumes account for 41% of the total certified soy volumes, and 15% of total soy volumes.
- ➔ The most popular non-segregated forms of certification are RTRS credits and CRS area mass balance, accounting for 17% and 5% of total soy volumes respectively.
- ➔ Only a very small amount of soy is certified segregated under RTRS or Proterra – 0.02% and 0.04% of total soy volumes respectively.
- ➔ Whilst dairy and pork have relatively high levels of certification, this is nearly all RTRS credits (95% of the dairy and pork certified volumes).

Split of volumes claimed as certified by type

Of volumes connected to certification, most are using RTRS credit purchases not connected to the physical supply chain



Claimed certification rates for different animal-based product types



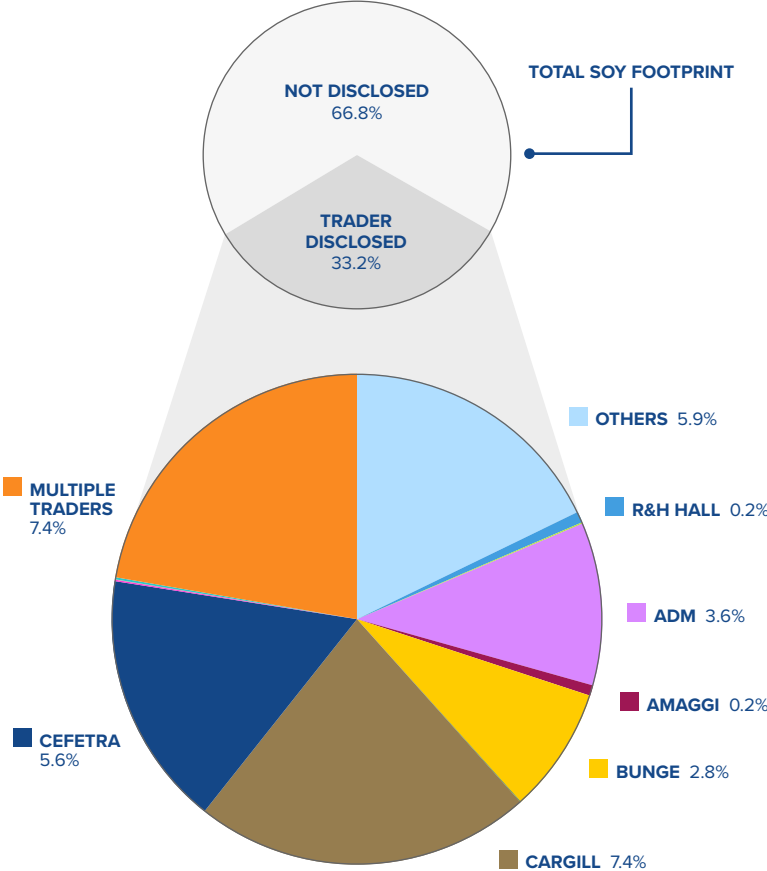
Most soy is of unknown origin, and only 4% was possible to trace back to low-risk countries

Country of soy origin



“ Soy that was traced to a soy trader in the supply chain had a three times greater chance of being certified.

Soy footprint traced to a trader



The soy market is dominated by a handful of traders

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Cargill

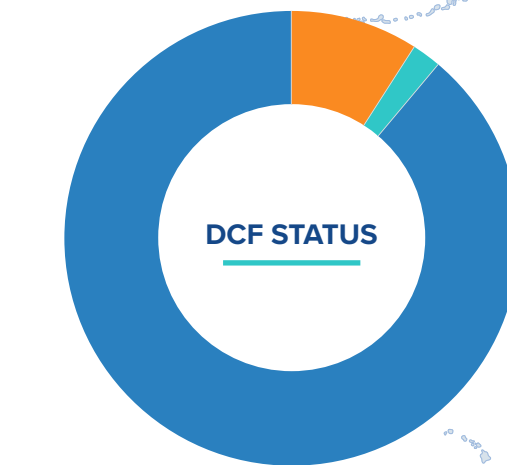
Of the soy that was identifiable to a trader, Cargill dominated. If you exclude the portion of soy that is not traceable to a trader, a large proportion of soy falls to Cargill (22%), followed by Cefetra (17%), ADM (11%) and Bunge (8%).

➔ 193,650 tonnes of soy were traced back to Cargill.

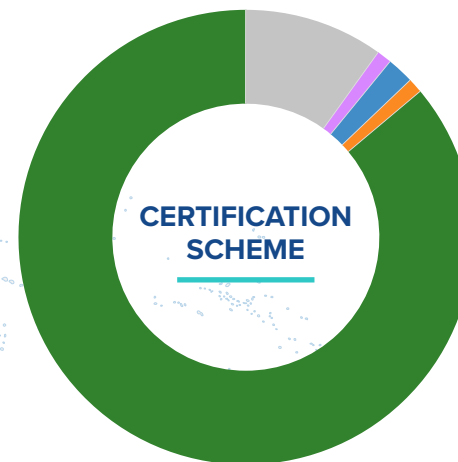
➔ 88% of the soy volumes that were traced back to Cargill is supplied alongside Cargill Triple S mass balance certification. 10% of the remaining traceable volumes are uncertified.

➔ No segregated vDCF volumes were reported to be present within the supply chain.

➔ Virtually all of the soy traced back to Cargill comes from high-risk countries, including 46% from Brazil and 45% from multiple South American countries. Only 1% originates from the USA.

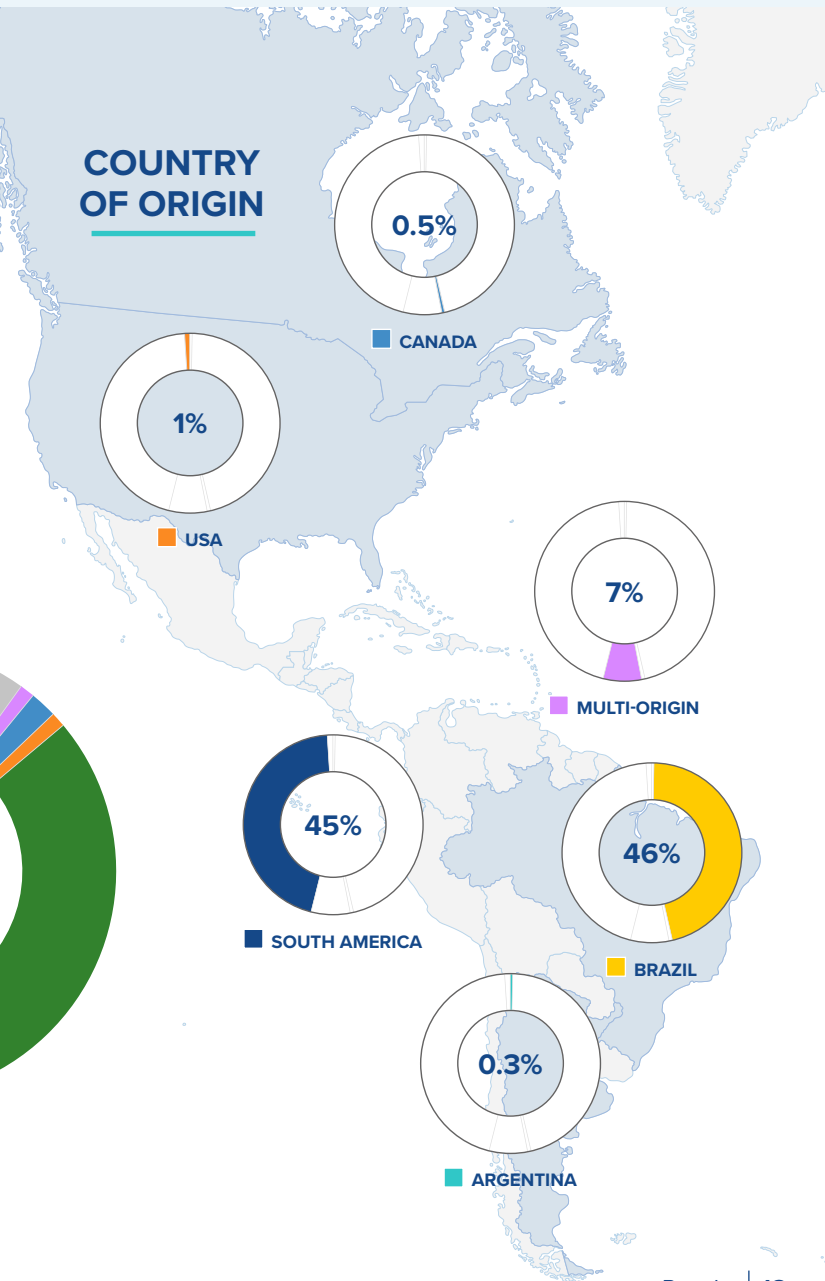


NOT vDCF 9%
vDCF (mass balance) 88%
SUPPORTS SUSTAINABLE SOY PRODUCTION 2%



NOT CERTIFIED 10%
OTHER <1%
RTRS - CREDITS 2%
CARGILL TRIPLE S 87%
ADM RESPONSIBLE SOYBEAN STANDARD V2 <1%

COUNTRY OF ORIGIN



The soy market is dominated by a handful of traders

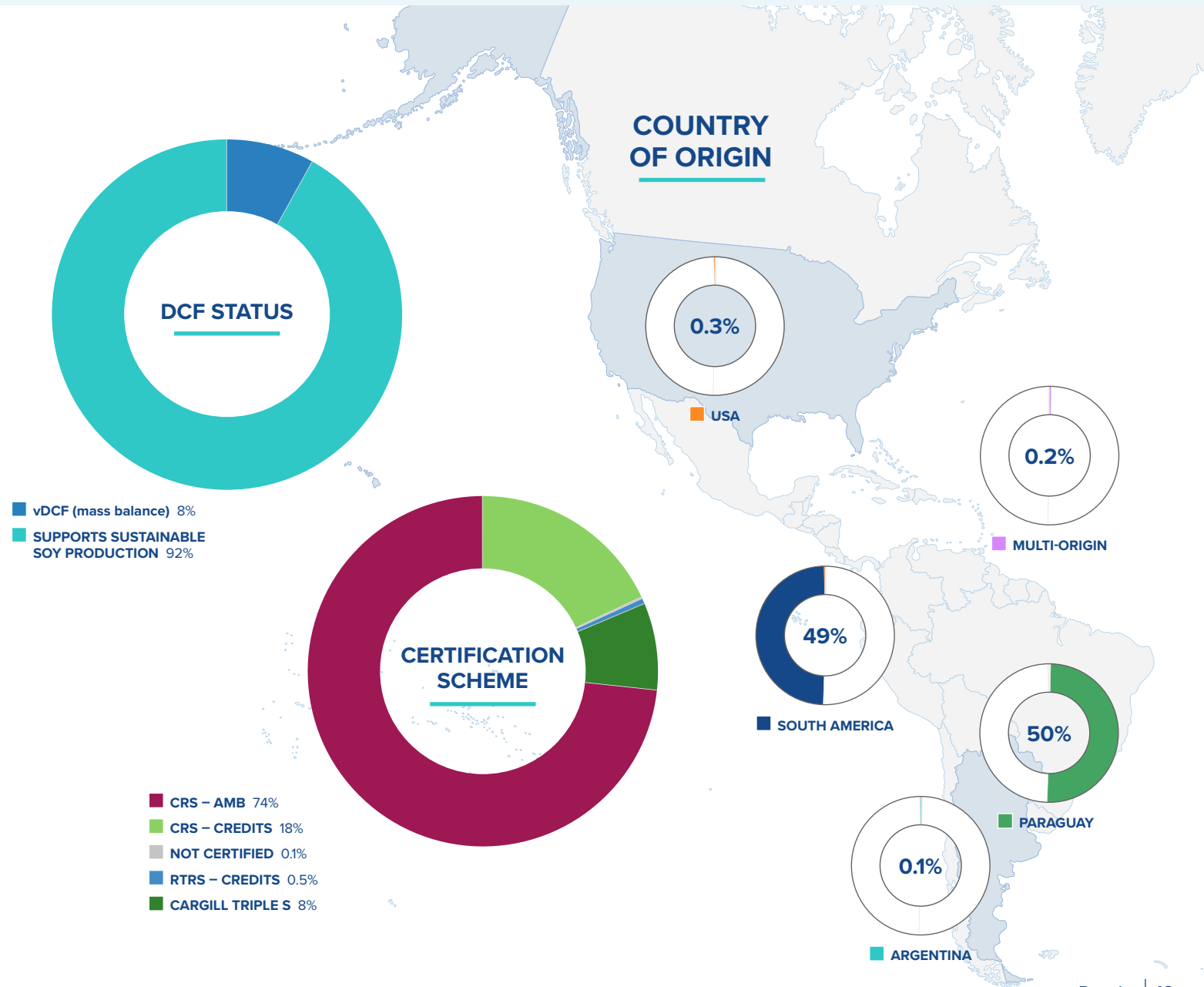
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Cefetra

→ 145,986 tonnes of soy were traced back to Cefetra.

→ Cefetra relies heavily on their own CRS area mass balance and credit certifications – 74% and 18% of total soy volumes – and therefore the majority of its soy is classified at 'supporting sustainable soy production', but not vDCF.

→ Half of the soy traced back to Cefetra originates in Paraguay, whilst 49% comes from multiple South American countries. Only 0.3% of volumes originated from the USA.



The soy market is dominated by a handful of traders

3/4

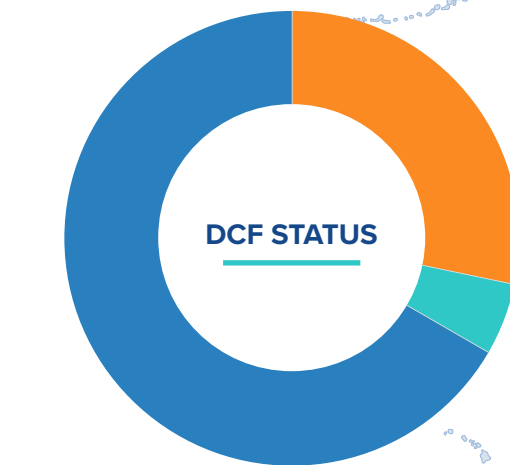
ADM

→ 93,366 tonnes of soy were traced back to ADM.

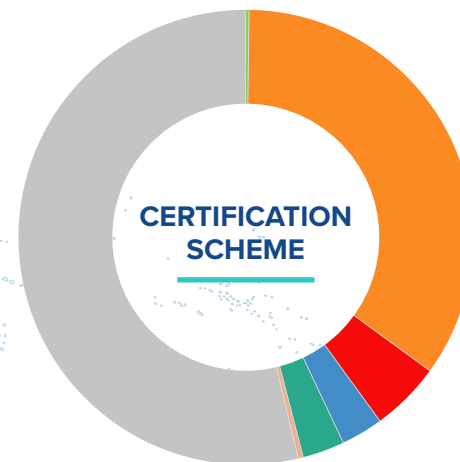
→ Two-thirds (66%) of soy traced to ADM is vDCF. This is partly due to high certification rates under their proprietary ADM Responsible Sourcing Standard (covering 35% of soy volumes), and partly due to a significant amount of soy originating in the USA (31% of soy volumes).

→ 28% of soy traced to ADM has not been claimed to be vDCF by those that have been able to identify them as being the importer. This is due to the majority being uncertified (54%), or originating from high-risk countries. In total, 52% of soy was traced back to Brazil, 11% to multiple South American countries, and 1% to Argentina.

→ RTRS credits purchased by ADM's customers account for 6% of soy volumes traced to ADM.

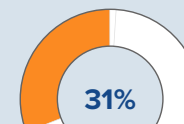


NOT vDCF 28%
vDCF (mass balance) 66%
SUPPORTS SUSTAINABLE SOY PRODUCTION 6%

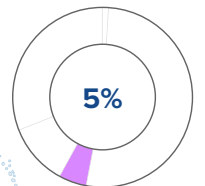


ADM RSS V2 35%
USSAP 5%
NOT CERTIFIED 54%
RTRS - REGIONAL CREDITS 3%
RTRS - STANDARD CREDITS 3%

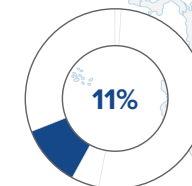
COUNTRY OF ORIGIN



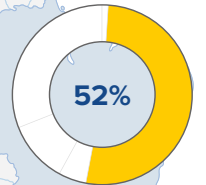
USA



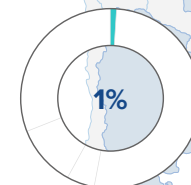
MULTI-ORIGIN



SOUTH AMERICA



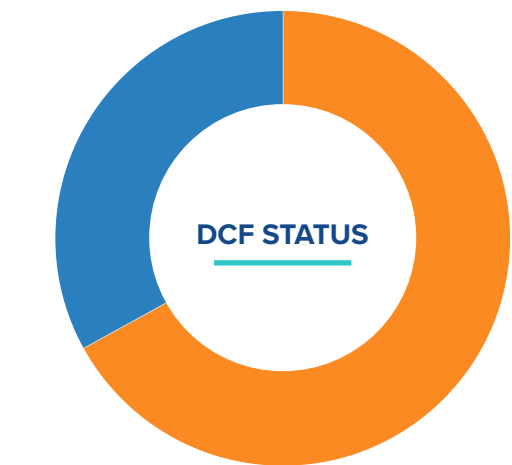
BRAZIL



ARGENTINA

Bunge

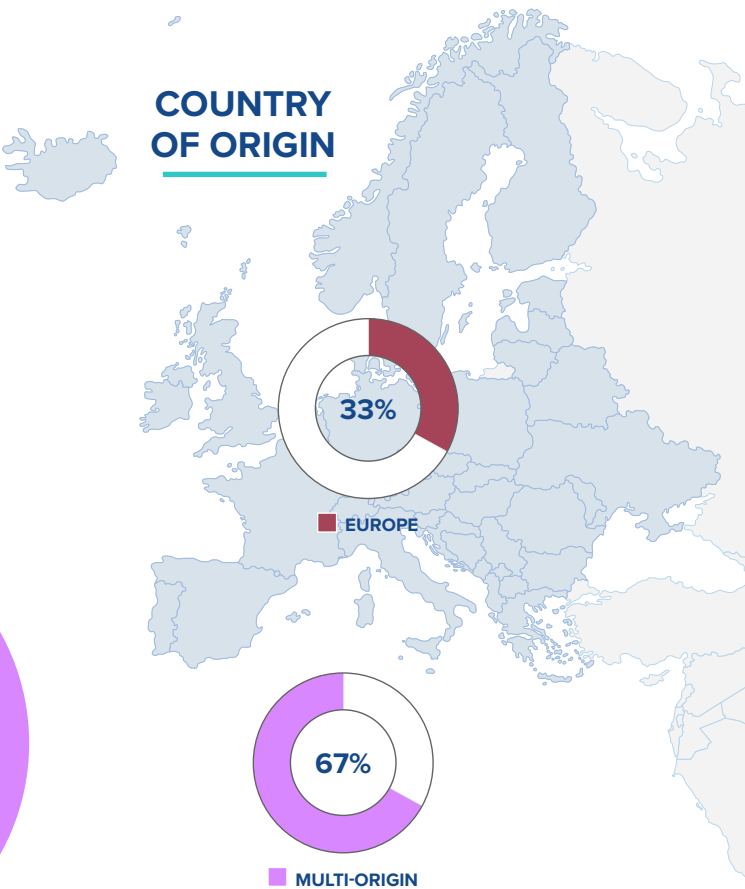
- ➔ 72,191 tonnes of soy were traced back to Bunge. Only 33% was vDCF, with the remaining 67% not vDCF.
- ➔ All vDCF soy volumes are certified under RTRS mass balance or originate from Europe.
- ➔ Similarly, all non vDCF volumes were claimed to be certified, but the certification scheme was only reported as 'other'. The origin was only reported as 'multi-origin'



NOT vDCF 67%
vDCF (mass balance) 33%



OTHER 67%
RTRS - MASS BALANCE 33%



Nearly half the soy in the UK market is not vDCF

UK case study

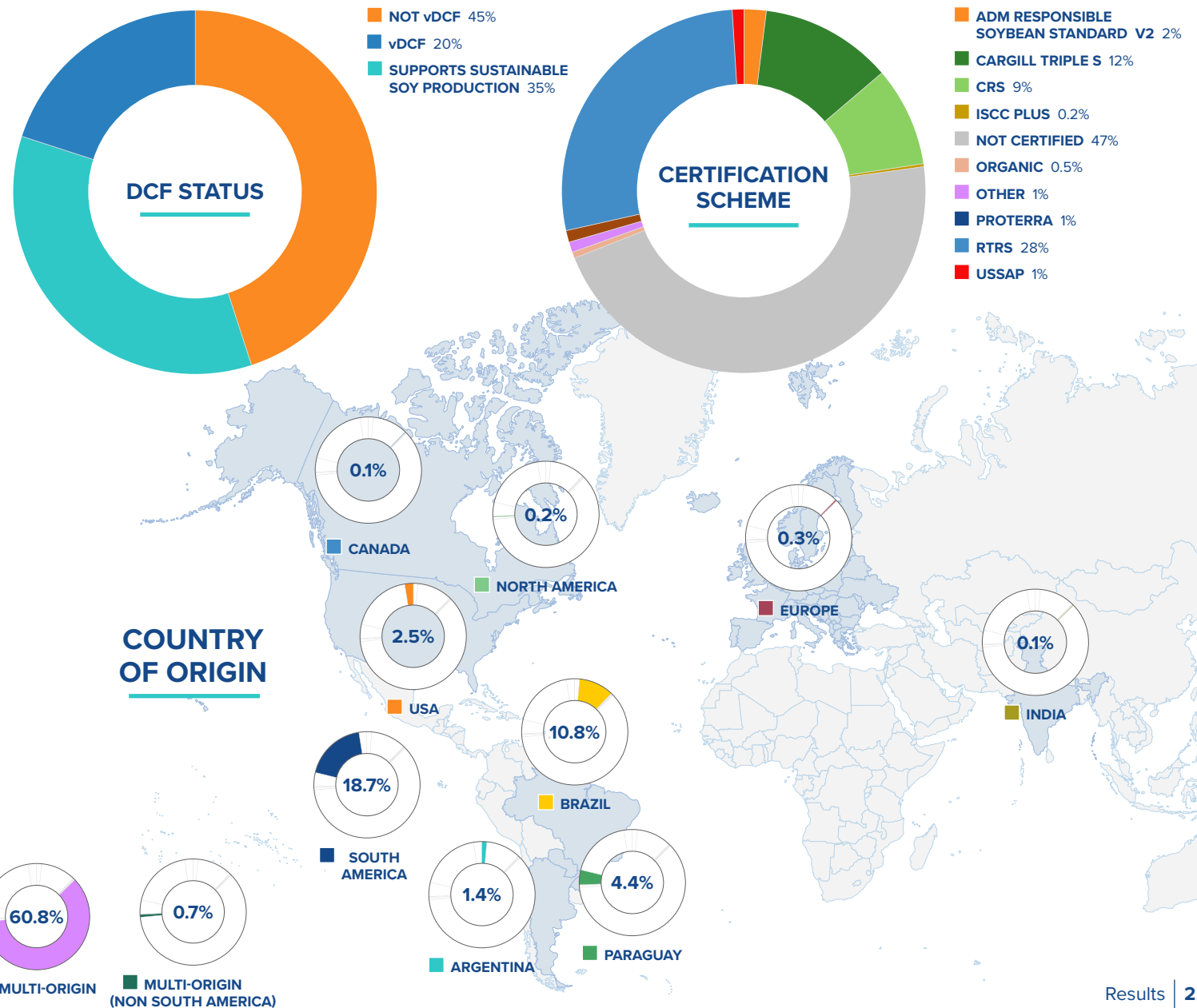
→ 1.5 million tonnes of soy were traced to the UK as their final market. This is 57% of the total amount of soy analysed in this report.

→ Only one fifth of soy in the UK market was found to be vDCF if mass balance is considered a transitional mechanism. Most – 45% – fell into the not vDCF category.

→ Nearly half the soy (47%) in the UK market is uncertified. The most common form of certification is RTRS, although nearly all this volume is credits. Cargill Triple S certifies 12% of the soy traced to the UK market.

→ Most of the soy in the UK market is not traceable back to a country of origin for retailers. Of the soy that is traceable, most originates from South America – 19% from multiple South American countries, 11% from Brazil, 4% from Paraguay, and 1% from Argentina.

→ A very low proportion of soy in the UK market was traced back to low-risk countries. Just 3% was traced to North American countries, mostly the USA, and 0.3% to Europe.



Companies have far to go to meet manifesto requirements

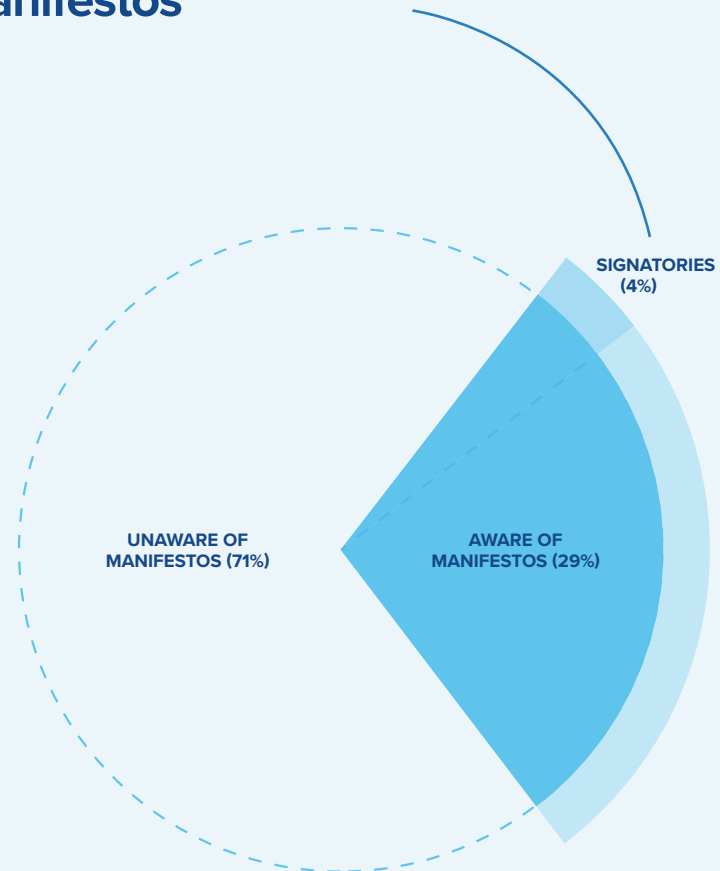
The UK and French Soy Manifestos require member companies to have public zero deforestation and conversion policy, using a cut-off date of 2020. The manifestos have been widely welcomed across the retail sector since their recent establishment, with most of the biggest names becoming signatories.

However further down food supply chains, we see a much lower level of engagement with manifestos and their requirements. When asked if they were aware of the French or UK Soy Manifestos, a worrying majority reported no awareness – 71% of companies. Just 10% of respondents were aware of the French Manifesto, and 27% were aware of the UK Soy Manifesto. An even smaller proportion had become signatories of either or both manifestos – just 4% of companies.

When assessing if company policies aligned with the asks of the manifestos, it was found that 118 companies (12% of the total) reported having a soy zero deforestation and conversion policy. Of these companies, half had set a 2020 cut-off date aligned with manifestos, and a third were publicly reporting on progress.

“

Only 4% of companies had become a signatory of the UK or French Soy Manifestos



Progress towards traceable soy needs to accelerate

In the face of incoming due diligence legislation, many large retailers have set commitments around ensuring soy is originating from low-risk nations or sub-nations. But companies further down the supply chain seem to be flagging in reflecting these requirements.

When questioned around traceability progress, 93% of companies reported no transition plan in place for achieving traceable soy. Of those with a transition plan, just 2% planned to achieve traceability to importer, 3% both importer and origin, and 2% to origin.

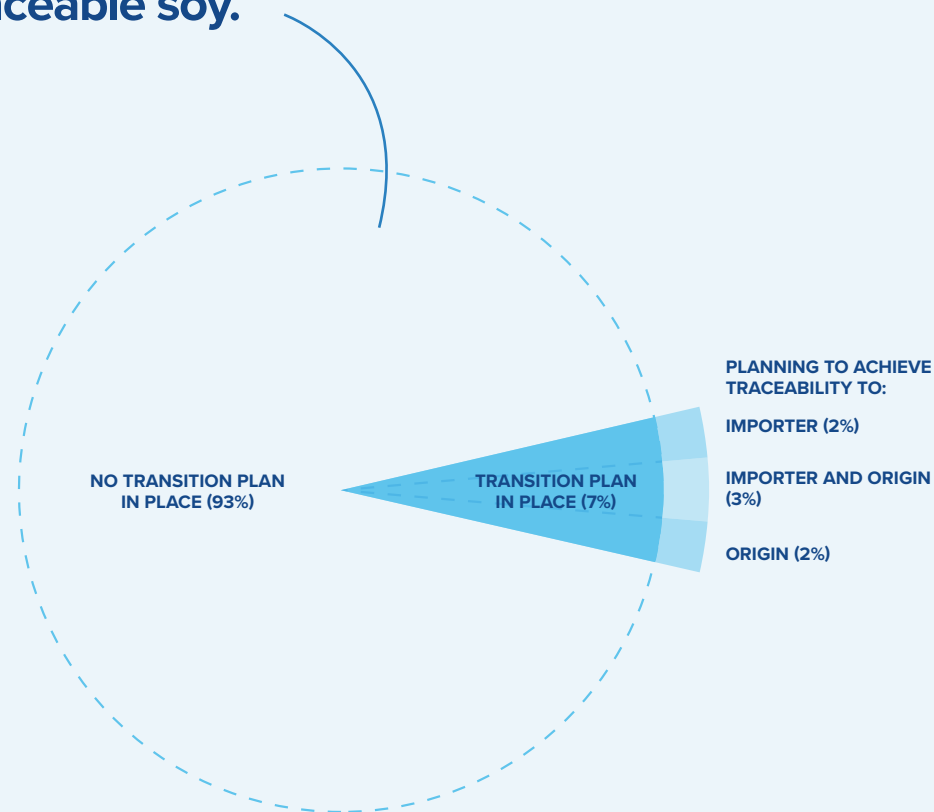
This is noteworthy, since when retailers previously introduced commitments around certified soy, a subsequent shift was seen in supply chains. But barriers seem to be blocking a similar shift occurring on implementing traceability to origin.

The biggest barriers reported by companies is a lack of control around feed buying decisions, and complexity of the supply chain, for example multiple stages/actors or feed mills. One large dairy producer explained that feed purchasing decisions are made by cooperatives or individual farmers who supply them, and that it can be hard to influence or have visibility of these decisions. Other reported barriers include fully understanding what the term traceability meant in practice, higher cost, low availability, and a lack of supply chain transparency.

Linked to this issue, the majority of evidence claims that were made by companies were found to have insufficient levels of evidence. This means that when soy reaches retailers further down the supply chain, origin claims cannot be verified, and therefore would not meet due diligence requirements.

“

When questioned around traceability progress, 93% of companies reported no transition plan in place for achieving traceable soy.



Soy alternatives are improving, but barriers remain

Pressure is growing to find alternatives to soy in animal feed to reduce the environmental impact of livestock farming. The recent Soil association report [Stop Poison Poultry](#) calls for the UK to reduce the soy content of poultry feed from 20% to 10% by 2025, using European grown crops as a replacement. Mighty Earth also call for changes in livestock feed in a recent report *Promises! Promises!*, calling instead for the inclusion of algae and local protein crops in animal feed. Some retailers, such as [Waitrose](#), have succeeded in removing soy from the diets of dairy cows.

Of the companies surveyed, 14% reported that they are testing alternatives to soy, and that 9% have already reduced the soy content in feed.

For those testing alternatives, most common alternatives being tested were sunflower meal (21 companies reported testing), peas or legumes (21 testing), insects (18 testing), rapeseed meal (17 testing), beans or lupins (17 testing), algae or seaweed (8 testing) and synthetic amino acids (7 testing).

When asked what barriers exist to adopting alternatives to soy in feed, common responses were cost, quality, performance and difficulties with legality in certain markets. One company explained that the cost faced is not just an increased market price and high competition,

but investments required at feed mills to create storage facilities that separate a wider range of feed ingredients. And many of those testing insects flagged that legal barriers prevented them from proceeding beyond trial stage.

Promoting alternatives can be a great opportunity for regulators and policy makers to accelerate a transformation in feed. Use of processed animal proteins - now permitted in the EU - is an example of something that can be expanded as a direct replacement for soy.

14% of the companies surveyed reported that they are testing the following alternatives to soy:



Findings and Recommendations

Key takeaways from the results, and what these mean for different industries

Sector key findings and recommendations

Retailers and Food Service

1

Engage supply chain to meet commitments on soy manifestos

European soy manifestos have membership across the food retail and service sector. However, findings show that few companies further down the food supply chain are aware of manifestos – just 29% of companies surveyed have awareness of either the French or UK soy manifestos. In addition, faster progress is needed towards meeting the supply chain requirements for manifesto signatories – just 6% had a 2020 deforestation and conversion cut-off date and 4% were publicly reporting on progress. Retailers must work to cascade awareness of, and commitments towards, soy manifestos down their supply chains.

2

Address information flow blockers in supply chain to meet due diligence requirements

Incoming due diligence legalisation will require companies to verify that soy is vDCF. Yet information is not being passed down the supply chain, particularly around soy origin, to demonstrate whether soy is from a country or sub-nationality considered low risk. Most soy currently is of unknown origin for food retailers and service, with only 11% being traceable to a specific country. Commercial confidentiality has traditionally been the reason given for this lack of transparency, but retailers and food service will need to increasingly challenge this to meet upcoming legal requirements.

3

Go beyond unsegregated certification standards

Certification has become the go-to method for demonstrating sustainability in commodity supply chains. But perceptions around certification, particularly mass balance and credit forms, are changing. NGOs are becoming increasingly critical of forms of certification that are not segregated and cannot be physically vDCF. Retailers must now look at ways of ensuring soy is physically vDCF through segregated forms of certification, such as schemes that are FEAC-benchmarked.

Sector key findings and recommendations

Industry

1

Improve information and evidence flow down supply chain on certification and origin

Retailers, food service, and food importers will increasingly demand information around soy origin and certification to meet vDCF commitments and incoming due diligence legislation. Currently, 89% of soy in the supply chain does not have an assigned country of origin, and evidence of certification claims remains poor. There will need to be a significant push across all industry actors to improve the flow of information and evidence downstream the supply chain to meet due diligence legislation requirements. Industry actors should collaborate with their suppliers and clients to develop standard information exchange structures that facilitate full supply chain communication.

2

Increase supply chain transparency, reporting and assurance

Building on the above, overall transparency should be improved with standardised public reporting. Greater transparency is key to achieving a more sustainable soy supply chain. Industry actors should require suppliers to publicly report volume and origin information, at a minimum to a sub-national level. The next step is to gain third party assurance for reported origin data, along with suppliers.

3

Join European Soy manifestos, and align policies with their commitments

European soy manifestos are a collective industry effort to drive progress towards vDCF soy. Membership is high among food retailers and food service, but flagging further up the supply chain. Joining shows a bold public commitment to work collaboratively to address systemic issues in soy supply chains.



Sector key findings and recommendations

Government

1

Consult further with industry to improve readiness for due diligence legislation

Results show that industry is not yet ready to meet the requirements of incoming due diligence legislation, with a key barrier being the lack of information flow, and poor evidence, for claims around origin and certification. Just 11% of soy had a country origin claim attached to it that was visible to retailers. It is important to understand why barriers exist, and what can be done legislatively to tackle them.

2

Cover all forms of deforestation and conversion in due diligence legislation

Push UK requirements beyond legality to cover all forms of deforestation and conversion. This is important, since firstly the majority of soy-related deforestation and land conversion occurs on land where it is legally permitted, and secondly because it is very time- and cost-consuming for businesses to establish whether deforestation or land conversion incidents were legally permitted or not.

3

Create clear requirements, aligned with other countries, on due diligence legislation

Given that companies are not yet ready to meet due diligence legislation, there is a need to create laws that are very clear in their asks to companies, so that efforts for fulfil requirements can be targeted and efficient. Retailers and food service have supply chains that are complex and often span multiple geographies, so due diligence legislation in different jurisdictions should be as aligned as possible, to minimise the economic and administrative burden on companies to meet them.

Solving the transparency issue - Soy Transparency Coalition



In response to the issues around transparency within the soy supply chain, and the need for system level change, in 2020 3Keel began facilitating a first of its kind trader assessment of the most material soy importers into Europe.

This assessment was run through the Soy Transparency Coalition (STC), a pre-competitive coalition that aims to help supply chain companies and investors overcome transparency challenges in the soy sector to deliver a sustainable production system.

As relatively few companies are present in the soy trade out of South America, focusing on transparency with these businesses will efficiently identify responsible suppliers that are proactively seeking to address key environmental and social issues. The assessment bypasses the visibility

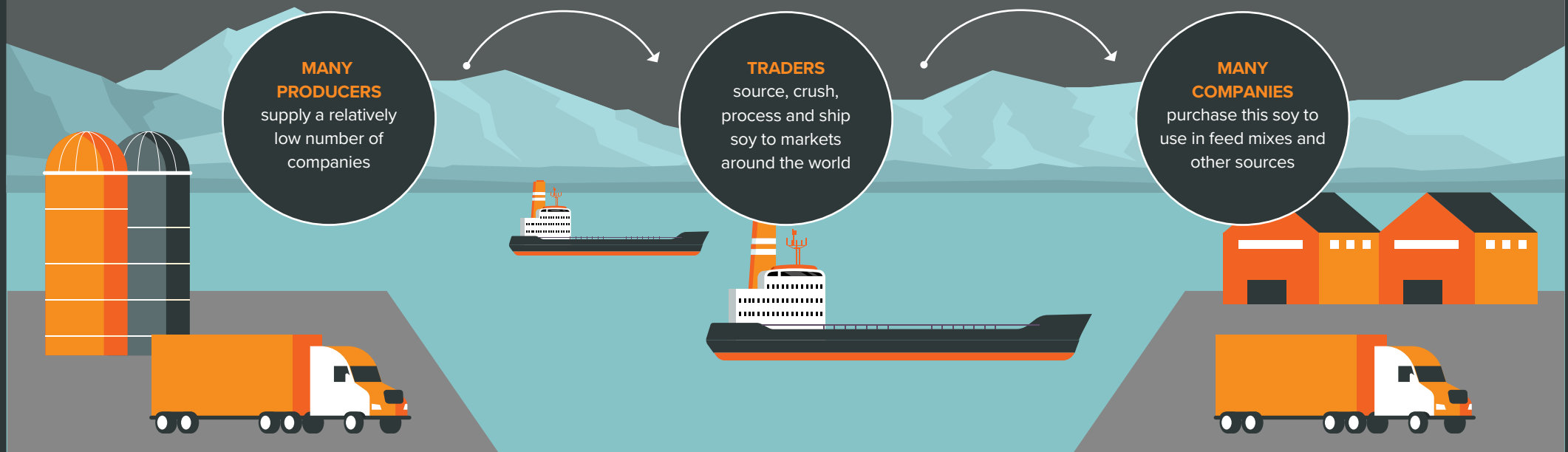
issues downstream of the importers and feed companies, instead gathering information directly from the traders who are exporting and importing soy.

The public report of the results from the first ever assessment is now available to view here. Full STC members also get access to the anonymised report, tailored scorecards and trader summaries. When these outputs from the STC assessment are coupled with the producer and manufacturer level data from the collective retail soy initiative, this gives companies a more complete view of the total soy supply chain. This also gives members a better understanding of progress made and

where to focus future efforts to make the biggest difference.

If you are interested in joining the STC, get in touch with the 3Keel team on info@soytransparency.org.

Soy Transparency Coalition's focus is on the narrowest point in the supply chain



References

Agricultural Industries Confederation – UK Soy Roundtable data 2022

IDH 2022 – European Soy Monitor Report

Mighty Earth 2022 – Promises, Promises!

Proterra 2022 – Delivering deforestation and conversion free soy: Monitoring, reporting, and verifying supply chains

Soil Association 2022 – Stop Poison Poultry

Appendix

Protein summaries

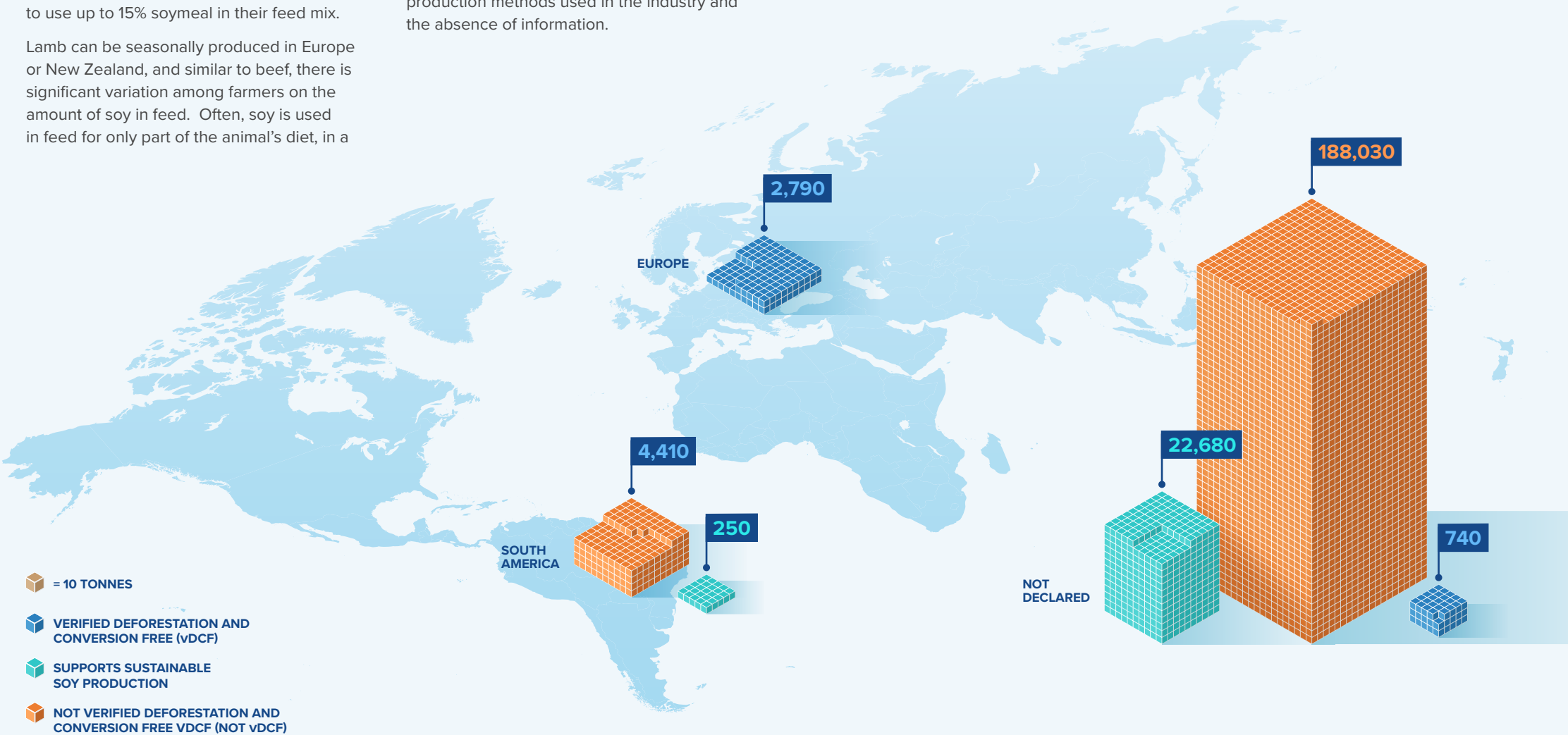
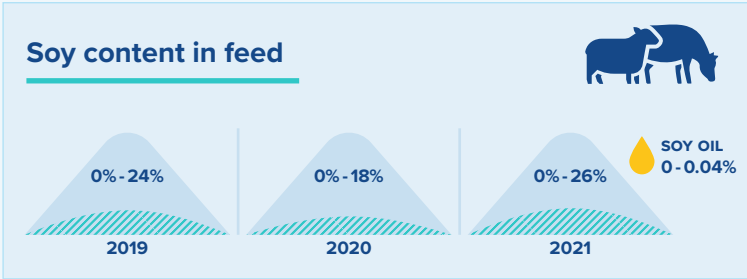
Beef & Lamb

Most of the European cattle industry is a mixture of pasture and grain fed cows in a largely independent producer sector. Farmers are often rearing a mixed herd composing dairy and bull varieties that have variable diets. Some farmers do not use any soy within their feed ration, whilst others have been surveyed to use up to 15% soymeal in their feed mix.

Lamb can be seasonally produced in Europe or New Zealand, and similar to beef, there is significant variation among farmers on the amount of soy in feed. Often, soy is used in feed for only part of the animal's diet, in a

'finishing diet'. New Zealand lamb, however, is produced almost exclusively within a grazing system.

The figures provided in this report have assumed that lamb from New Zealand does not have a soymeal footprint due to the known production methods used in the industry and the absence of information.



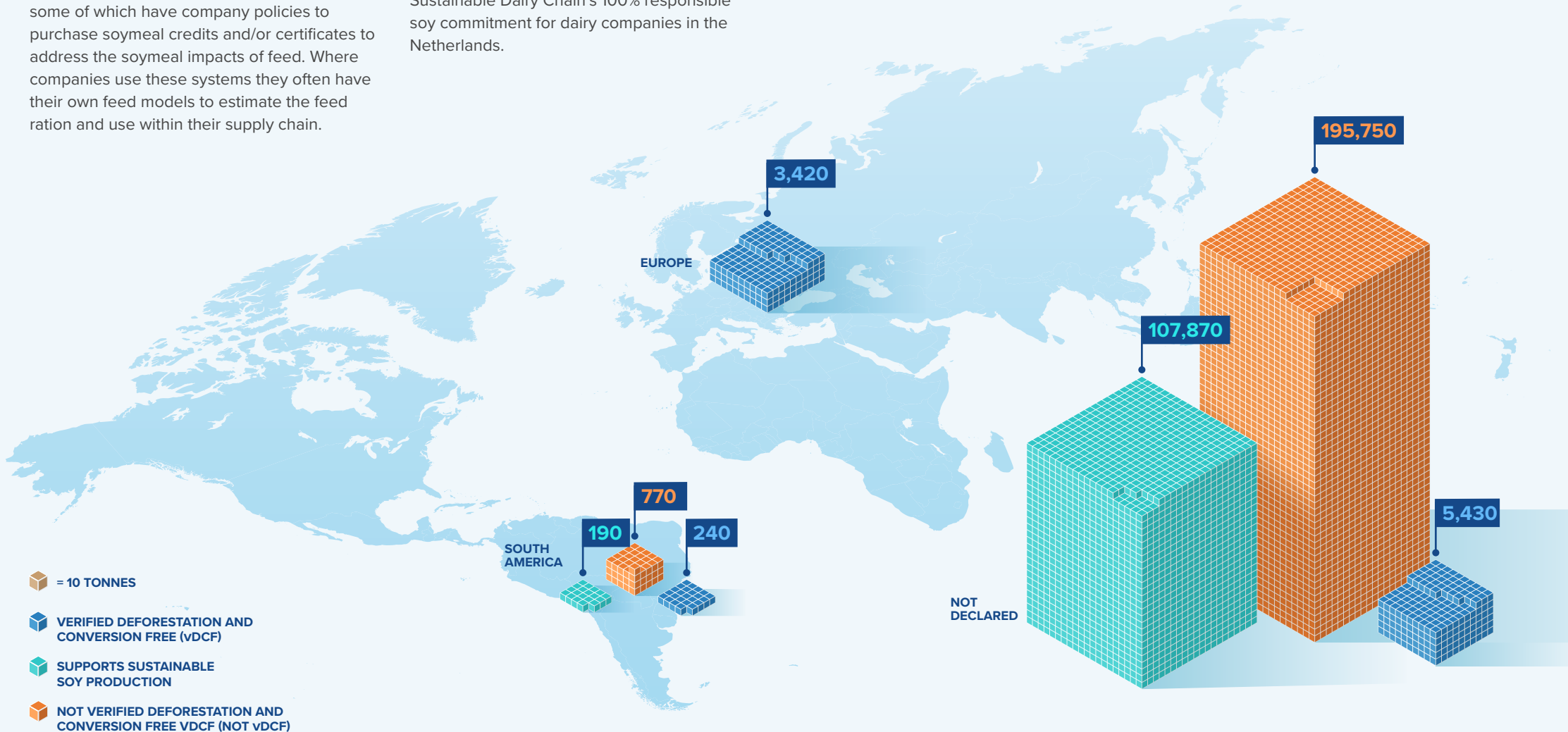
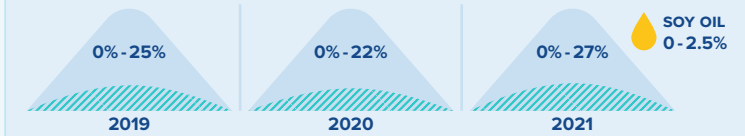
Dairy

A few major dairy producers contract directly with farmers throughout Europe for the majority of fresh milk and dairy supply. Non-European dairy is a small part of the overall supply into European retail and food service markets. The processing sector is consolidated with just a few major producers, some of which have company policies to purchase soymeal credits and/or certificates to address the soymeal impacts of feed. Where companies use these systems they often have their own feed models to estimate the feed ration and use within their supply chain.

Some supply chains have removed soymeal from their dairy production.

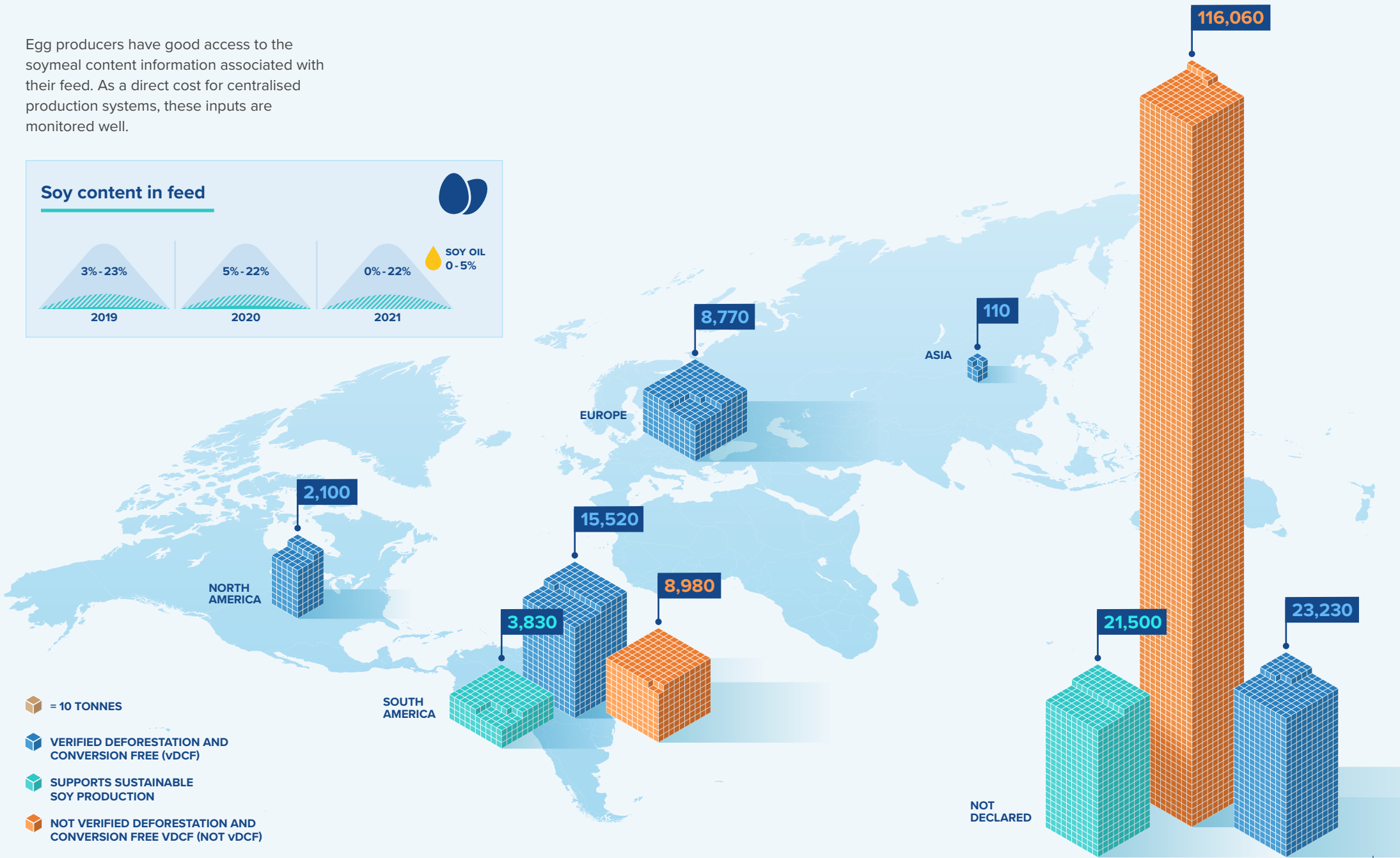
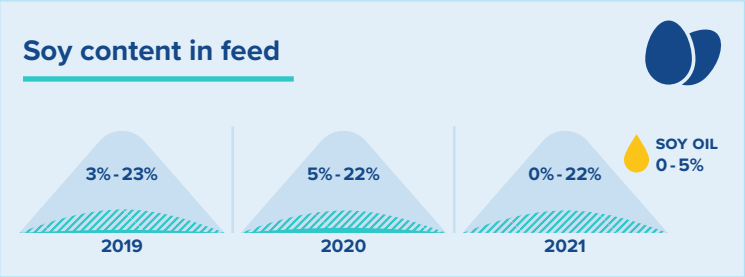
Several country-level soy initiatives and sourcing agreements exist at the country-level, such as the Swedish Soy Dialogue, the Switzerland Soy Network and The Sustainable Dairy Chain's 100% responsible soy commitment for dairy companies in the Netherlands.

Soy content in feed



Eggs

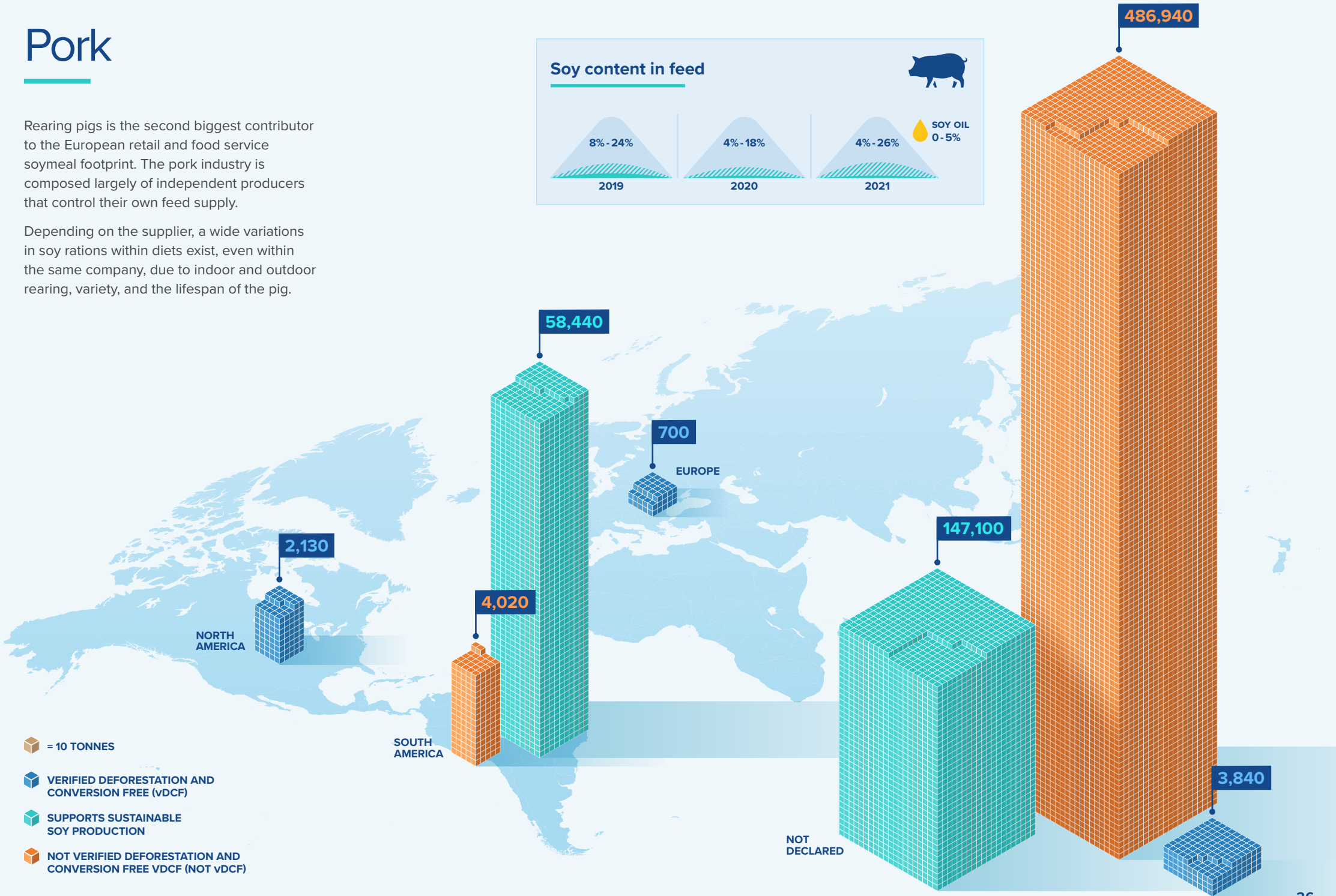
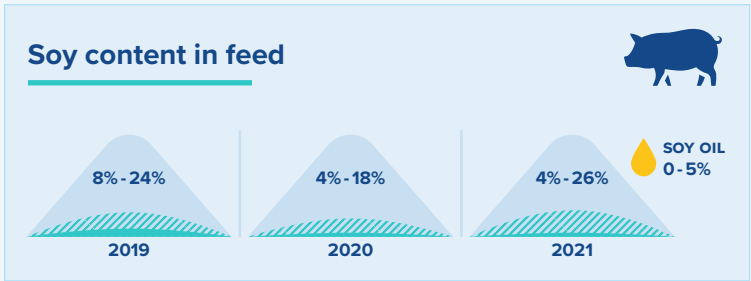
Egg producers have good access to the soymeal content information associated with their feed. As a direct cost for centralised production systems, these inputs are monitored well.



Pork

Rearing pigs is the second biggest contributor to the European retail and food service soymeal footprint. The pork industry is composed largely of independent producers that control their own feed supply.

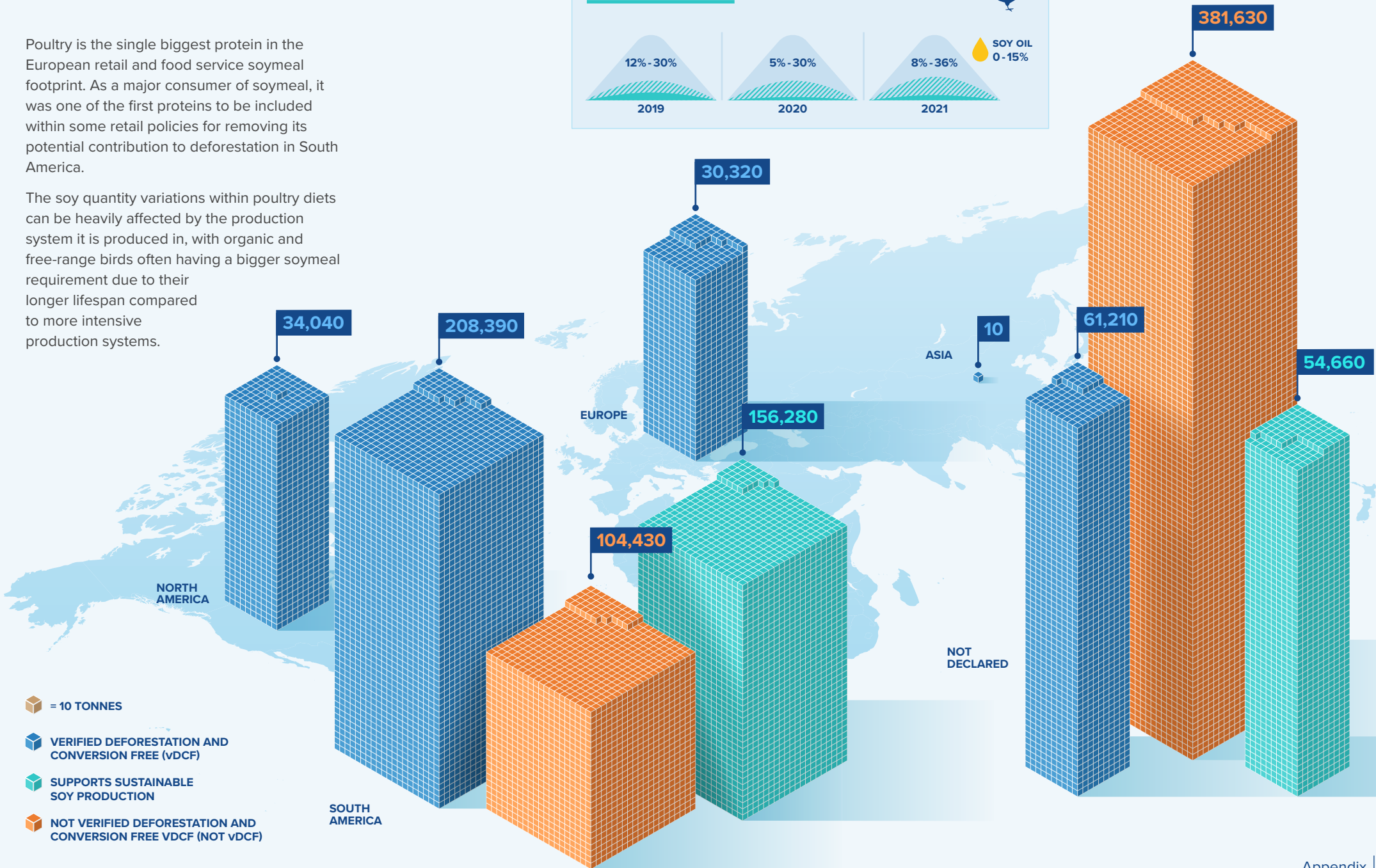
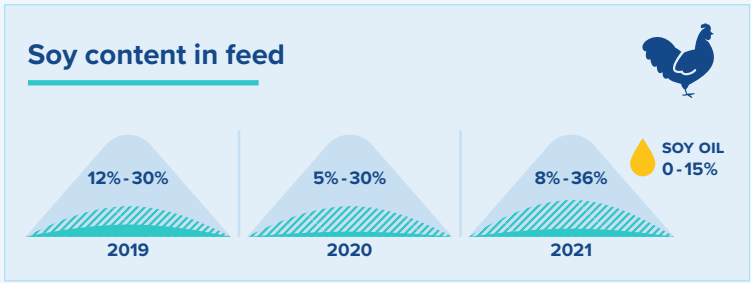
Depending on the supplier, a wide variations in soy rations within diets exist, even within the same company, due to indoor and outdoor rearing, variety, and the lifespan of the pig.



Poultry

Poultry is the single biggest protein in the European retail and food service soymeal footprint. As a major consumer of soymeal, it was one of the first proteins to be included within some retail policies for removing its potential contribution to deforestation in South America.

The soy quantity variations within poultry diets can be heavily affected by the production system it is produced in, with organic and free-range birds often having a bigger soymeal requirement due to their longer lifespan compared to more intensive production systems.

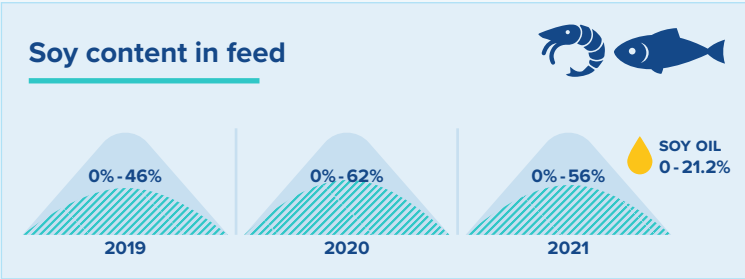


Farmed Fish & Seafood

Aquatic feed manufacturers are largely committed to providing certified soymeal within their feed mixes, thus contributing to the relatively high proportion of feed that is certified compared to other livestock groups.

There is significant variability in visibility and action between different farming systems. Whilst European salmon production is largely using certified soy protein concentrate (SPC), prawns and other species are much more likely to use unverified feed.

Information related to the transparency of this system is also fairly well established with a number of suppliers able to identify the sub-national region of soy production.





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