

A close-up photograph of a person's hand, palm up, holding a large quantity of yellow soybeans. The hand is positioned in the center-right of the frame. The background is a dense, textured surface of many more yellow soybeans, creating a repeating pattern. The lighting is warm and directional, coming from the upper left, which casts soft shadows and highlights the texture of the skin and the individual beans. The overall color palette is dominated by the golden-yellow of the soybeans and the warm tones of the skin.

# Moving to deforestation free animal feed in Europe

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2020 Collective European retail and food service soy initiative to increase  
transparency and sustainability in the global soy market

OCTOBER 2021

**3keel**

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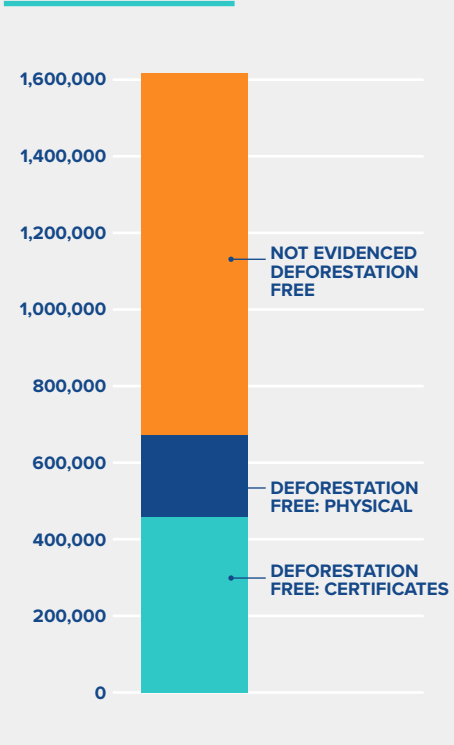


# Soymeal Footprint

Key findings from an assessment of the livestock supply chains from 9 retail and food service companies across the UK and Europe

1.63 million tonnes

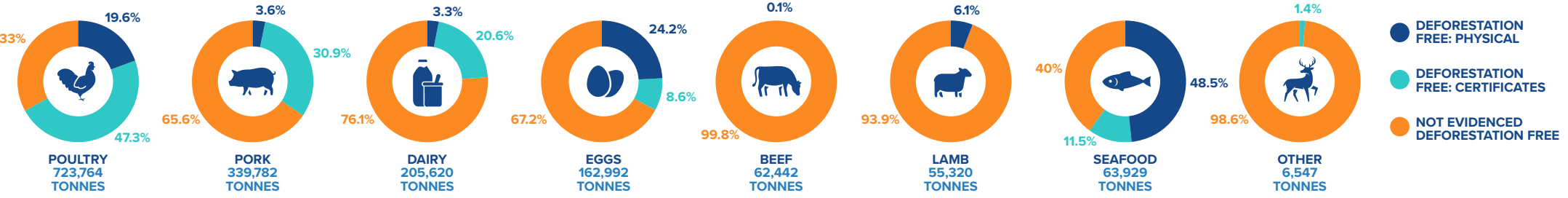
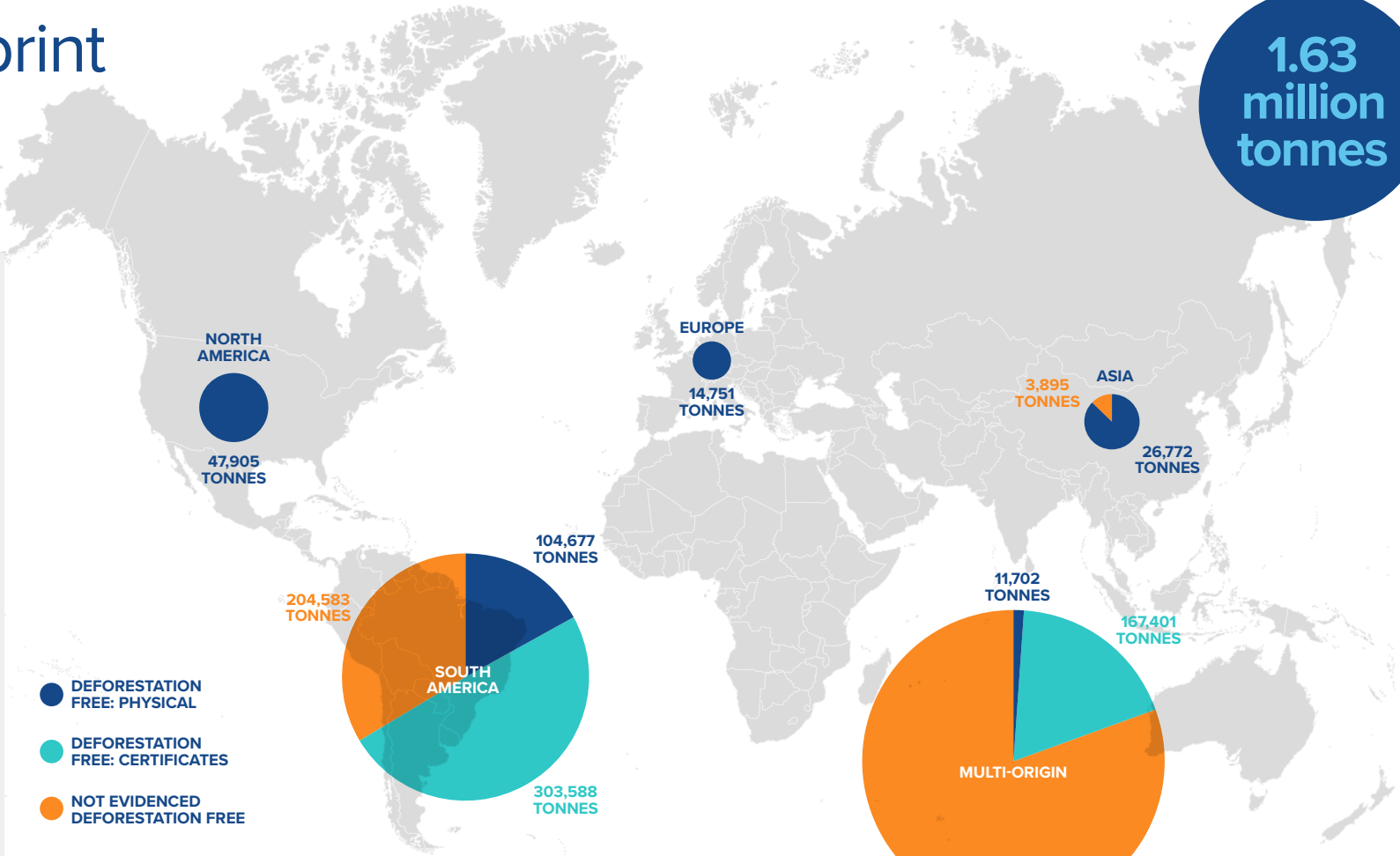
Soymeal footprint - 1.63M tonnes



- DEFORESTATION FREE: PHYSICAL
- DEFORESTATION FREE: CERTIFICATES
- NOT EVIDENCED DEFORESTATION FREE

PHYSICAL – CLAIMS OF SEGREGATED/ MASS BALANCE CERTIFIED MATERIALS OR SOURCING FROM A LOWER RISK REGION

CERTIFICATES – INCLUDING STANDARD BOOK & CLAIM (B&C) AND AREA MASS BALANCE (AMB) SCHEME CLAIMS



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# Background

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Soy: A commodity in the spotlight

# A year of unprecedented challenges, and opportunities

Covid-19 has created tectonic shifts in global commodity markets. Since the start of the pandemic there have been observable changes in the way consumers have access to, and relate with, global supply chains. Soy is no exception. The almost over-night closure of the hospitality industry dramatically reduced consumer demand for particular cuts of meat which, in turn, created a lower demand for soy used within animal feed. Moreover, Brazilian logistics and freight delays (due to a reduced workforce capacity because of Covid-19) plummeted Chinese soy inventories to record lows (UNDP, 2020). This global imbalance of supply and demand had material effects on the environment; after Covid-19 related logistical delays were resolved, there was a sharp rise in Brazilian soybean exports, meaning the potential for deforestation (both legal and illegal) increased (UNDP, 2020).

In November 2020, Brazil's National Space Research Institute released data that showed the highest rate of deforestation in the Amazon Rainforest since 2008 (INPE, 2020). The impact of this deforestation has been compounded by the devastating forest fires of 2019 which have continued to burn throughout 2020, exacerbating biodiversity loss, threatening the rights of indigenous communities and accelerating climate change.

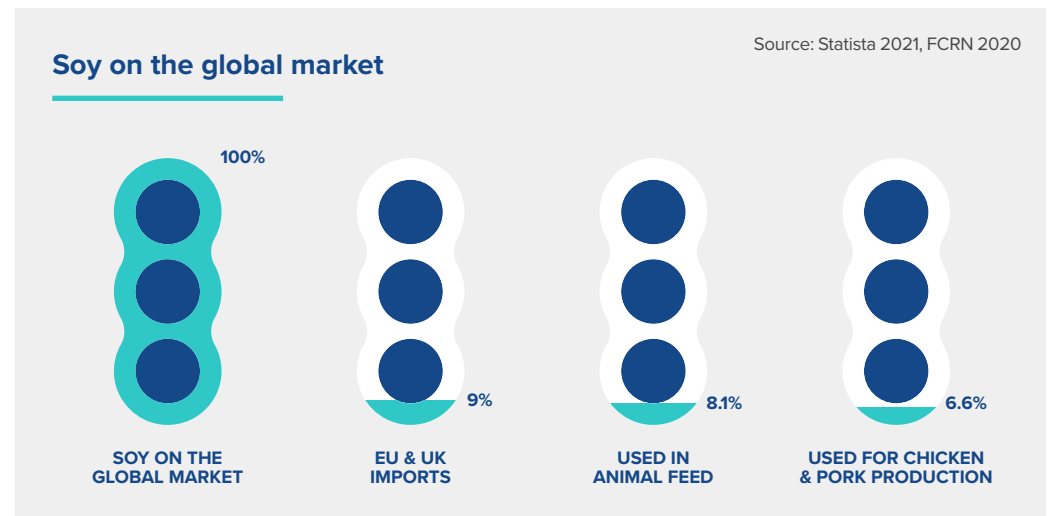
South America is a key continent for soy production, and there have been many studies and reports demonstrating that soy is a significant driver of deforestation and land conversion across the continent. Activists, industry players and politicians across the globe have campaigned for collaborative and systemic

approaches to reduce soy-related deforestation, particularly within key biomes in Brazil and Argentina - such as the Amazon, Cerrado and Chaco. Universal agreements such as the Amazon Soy Moratorium - signed in 2006 to ensure that soy production in the Amazon region only occurs on existing converted agricultural land and not through deforestation of native vegetation (FAIRR, 2021) - have had some success. However, political pressures in the region are putting existing and potential agreements like this at risk.

## What is soy used for?

The majority of soy within Western diets is consumed 'indirectly' through its use as a protein source in animal feed. Over 90% of soy imported into the European Union is used in animal feed, particularly for poultry and pork (see figure in the bottom right).

The EU imports around 9% of the soy on the global market (Statista, 2021), making it the second largest importer of soy in the world after China. Of this, over 60% is sourced from Brazil, Argentina or Paraguay (IDH, 2020). Though each individual country or company only represents a small portion of the overall soy market, UK and European companies and governments are increasingly recognising their responsibility to act to encourage change in the soy system. This is not only through their direct sphere of influence, (e.g. a retailer empowering their suppliers to take action, a government putting in place legislation on soy imports) but also through wider initiatives aiming to transform global soy production by supporting and working with local organisations or communities at a landscape level.



# Approaches (and their perceived credibility) are constantly evolving

There are many theories of change that actors across the soy value chain have been employed to address the issues of deforestation and land conversion associated with soy production. These can be broadly split into two categories (below).

## Direct supply chain approaches



### Certification

Certification can ensure the sustainability of a particular soy supply chain, but currently covers only a small volume of total soy production. The most prominent certification schemes used are ProTerra and Round Table on Responsible Soy (RTRS), which cover 1.2% and 1% of global production respectively.

Whilst certified volumes have been increasing, this is not always matched by an increase in demand for physically certified volumes (RTRS, 2020), which can limit the effectiveness of the certification scheme.

A number of traders have also set up their own certification schemes to certify soy within their supply chains.

Attitudes towards certification have been evolving and recently criticism of this approach has been increasing, with NGOs (Greenpeace, 2021) questioning whether certification, as a standalone mechanism, can fundamentally transform the soy industry.



### Reducing soy usage

This is either through the reformulation of feed, or by looking to encourage the transition away from animal-based products to plant-based alternatives.

Some actors have sought to replace soymeal in animal feed with other protein sources, such as peas, rapeseed or even insects. However, this approach should not be seen as an immediate 'fix' - as soy is such an efficient crop, the environmental impact of any alternatives should also be considered. There is also a need to balance any reduction of soy production with the consideration that soybean producing regions have seen significant economic development from soybean production.

## Industry or landscape-level approaches



### Area mechanisms

Regional approaches have been adopted in some areas by coalitions of public and private actors.

The Amazon Soy Moratorium was set up with the aim of halting the production of soy in the Amazon within areas deforested after 2006. This initiative demonstrates how soy production can be increased without causing deforestation, but relies on the continuing support of law enforcement agencies in Brazil.

Focus has now expanded to the Cerrado, where the Cerrado Working Group (GTC), other local groups, international forums, and NGOs have sought to protect the Cerrado through taking either a biome-wide or municipality specific approach. These different initiatives often involve working with local government, large scale soy traders and farmers, providing financial incentives to use land which has already been cleared.

The aim of these initiatives is to create new 'zero deforestation sourcing areas'.



### Trader engagement

With only 8 soy traders exporting 70% of all soy exported from Brazil in 2018 (Trase, 2020), this narrow point in the soy value chain is one of the most influential both up and downstream.

The Statement of Support for the Cerrado (SoS) group has been focusing on engaging traders in the Cerrado region on implementing deforestation and land conversion cut-off dates for their sourcing in the region.

Recent reports, such as those from the Soy Transparency Coalition (STC), WWF, and Mighty Earth, have focused in on the relative performance of traders in terms of both the environmental and social impacts of soy production in their supply chain.

Transparency and the flow of traceability information on sourcing origin down the value chain will be vital for individual downstream actors to demonstrate that they are sourcing from 'zero deforestation sourcing areas' once more these initiatives are in place.



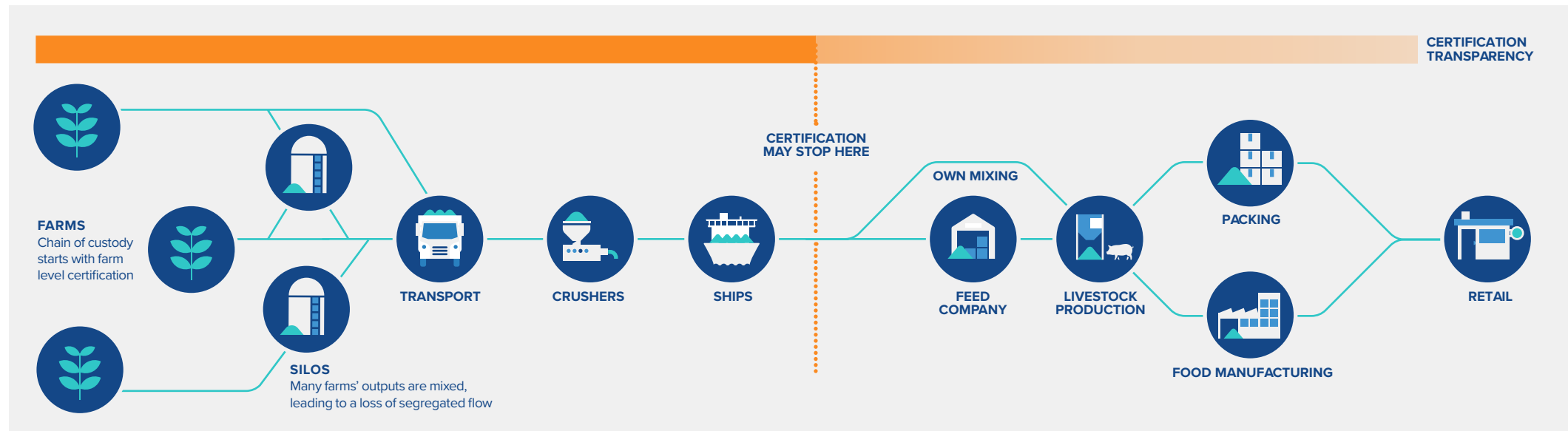
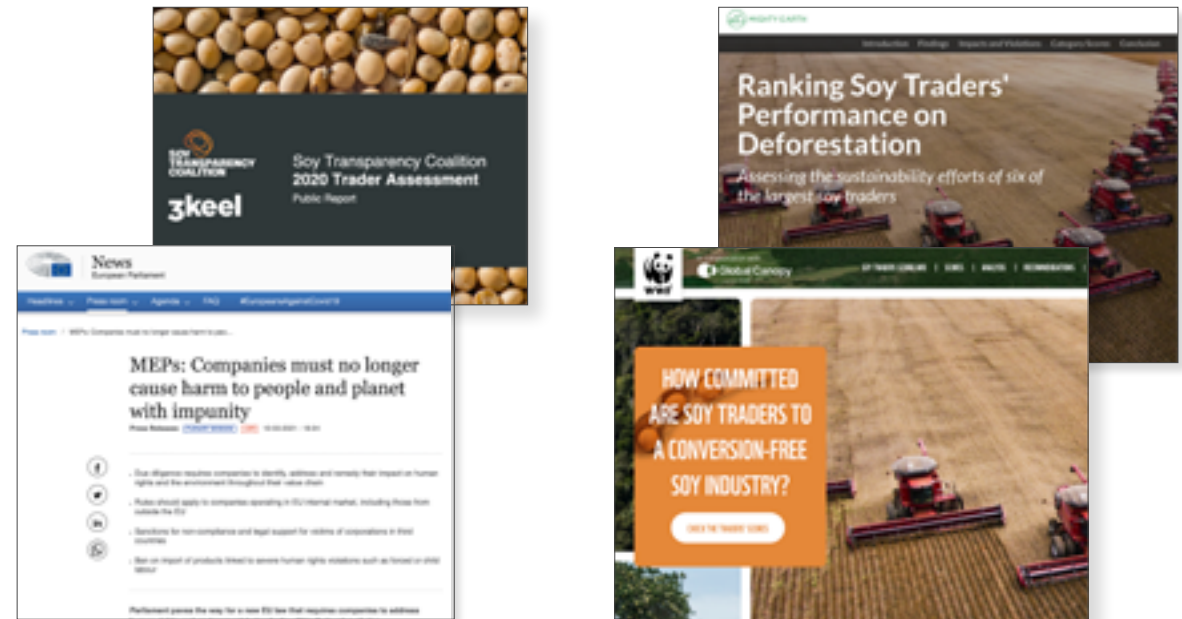
# The transparency challenge is being brought to the forefront

2020 was a year that saw increasing scrutiny for soy traders over the environmental and social sustainability of their operations, and how transparent they are on publicly disclosing their sourcing regions and performance.

With many downstream actors within the soy value chain citing a lack of information flow beyond the point of import (see diagram) as one of the blockers to a more transparent soy system, disclosure by the major soy traders represents an important step in creating a more transparent soy system.

Scorecards from the NGOs (e.g. Mighty Earth, WWF, Forest 500, and Mighty Earth) and business-led coalitions (e.g. Soy Transparency Coalition) aimed to shed more light on the varying commitments, actions and disclosure across the most significant traders in the global soy market.

Increased transparency and traceability is not just something being called for by business and NGOs. With the new European Union and UK due diligence legislation looming, the flow of information through the supply chain is going to become a legal necessity. This will particularly be the case for production origin and certification evidence.



# Aligning the ask across the sector

Retailers and food service companies are expected to provide responsible products.

Unlike other commodities such as palm oil or cocoa, which appear in on-pack ingredients lists, soy is often an invisible ingredient - used in meat, dairy, eggs and fish feed. With deforestation and the destruction of natural habitats increasingly in the public consciousness, it is becoming more important than ever to understand and quantify the potential environmental and reputational risk of deforestation within a retail supply chain.

In order to quantify this risk, a group of UK and European retail and food service companies (referred to as the 'customer' in this report) worked with 3Keel LLP to run an annual, standardised, collective reporting process for their suppliers.

This reporting has given the companies involved a greater awareness and visibility of their

products' soy supply chain, and enabled them to make informed decisions around policy and strategy to progress towards their targets on reducing the deforestation impact of their products. The consistency of the ask from different customers also made this process more efficient for their suppliers, many of whom supply multiple customers.

Looking beyond their immediate supply chain, the knowledge of the most significant soy traders, feed companies and soy origins within their supply chain can help to guide wider-scale engagement and actions. The data also indicates where a retailer could have greater influence on key actors, and therefore the greatest opportunities for driving whole system change.

Now in its third year, the collective data gathering process has expanded beyond retail, to include its first food service business.



## Development of collective process



# Approach

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Methodology, categorisation and scope



# An established and consistent approach to soy meal reporting

This is the third year of a consistent approach by UK and EU companies to gather key information 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, aiming to gather information on three key points:



## QUANTITY

How much soy meal was embedded in the products they sold?



## ORIGIN

Where and who did the soy come from?



## CERTIFICATION

How much of this supply was certified to a zero deforestation standard?

These are each key to both understanding potential risk within the livestock supply chain, and demonstrating their progress towards their ambitions for zero deforestation within their soy meal supply chains.

### Limited, co-ordinated asks

By gathering this information through a collective process, retailers and food service companies are aiming to reduce the number of demands their suppliers (who supply multiple customers) receive, and ensure that the data requested and format used was consistent.

### Scope

The scope for the 2020 data collection maintained the diversity and breadth of livestock-based ingredients.

It is widely reported that the key purpose for growing soy is so that it can be used in animal feed, with approximately 75% of all soy grown globally used to feed livestock (FCRN, 2020). As such, the focus for this report, and all reports in this soy series, was to collect data from suppliers delivering products containing livestock-based ingredients, as either whole animal proteins (e.g. chicken meat, eggs) or where they were used as ingredients in prepared foods (e.g. ham in a ready-to-go sandwich). A sub-set of the participating companies also collected data on direct soy within their own-label products during the reporting period, however this was less than 1% of their total soy footprint. This reinforces that the majority of any soy footprint will originate indirectly, within livestock-based ingredients in Europe.

This year saw several customers increasing the scope of their policies and associated reporting requirements, meaning the number of

participating manufacturing businesses using animal proteins also increased significantly. Across the different customers there was some variation on how to define 'animal protein ingredients' and 'livestock-based products', ranging from only direct use of whole proteins (e.g. chicken on a pizza), to use of processed ingredients (e.g. dairy powders). Due to these inconsistencies in customer policies on disclosure on soy, some data may be missing from this assessment where certain ingredients may have been outside the scope of a particular company's data requirements.

Although some small differences are present, the vast majority of soymeal is included in the assessment due to the relatively small contribution from the materials that were less frequently within scope. Generally speaking, most customer companies included soy in tiers 2, 3, 4a and 4b of the CGF soy ladder (see right), though a limited number of proteins that would be classed as by-products (tier 5) were included by a small number of retailers. This scope ensures that the assessment is focused on the products with the highest impact, and where suppliers are likely to have access to sufficient information to be able to submit the required data.

The data presented in this report is for European retail/hospitality sales only. As not every European food business participated in this work, the full European embedded soy meal footprint is not provided by this research. Any comparisons to 2019 and 2018 results have been made using data only from the companies who were also involved in the 2019 and 2018 reporting process.

## Tier 5

Sundry indirect (embedded) soy and soy derivatives



## Tier 4b

Eggs and dairy in processed food products



## Tier 4a

Meats in processed food products



## Tier 3

Eggs and dairy



## Tier 2

Raw meat feed



## Tier 1

Directly purchased soy and its derivatives



Source: CGF Soy Ladder

# Quantifying the soy embedded within products

The proximity of the reporting company to the soy importer directly impacts on their ability to provide detailed information on the feed content and origin. For livestock suppliers the level of visibility of their soy supply chain is dependent on the particular production system. For integrated feed supply chains, such as those for poultry, there is a close link with the feed supplier, or even the soy trader if they mix their own feed. Conversely, other proteins, such as beef, often source from a large number of independent producers, with very little visibility or control over the feed used.

In some cases where reporting companies had a large number of suppliers, a sampling technique was used to collect the data. The quality of information provided was highly variable. For all animals, the use of different feed mixes throughout the life cycle of the animal also added complexity.

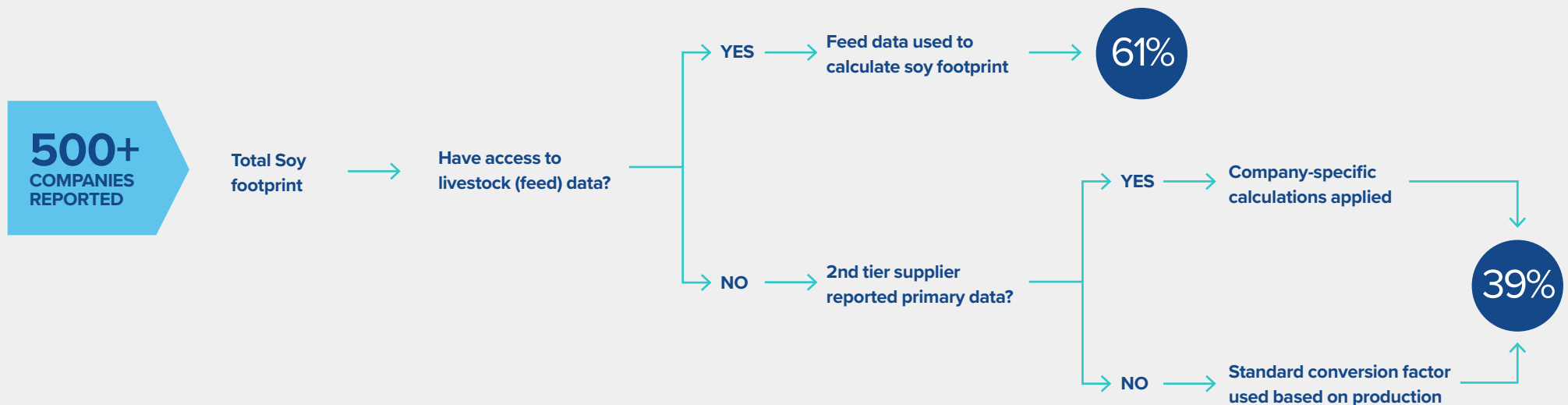
For companies purchasing animal products as an ingredient for a manufactured product, the likelihood of them having any direct contact with the livestock producer is limited. This directly impacted upon their visibility beyond their direct supplier, and therefore, the information reported. In these instances where visibility is blocked, a simplified declaration form was used. This form prioritised key information

such as the total volumes of the livestock-based products sold to the customer within the reporting period, as well as any information about the rearing location of the animal and the feed volumes used to create that volume of product. Where information about feed volumes or supplier information was not disclosed, conversion factors were applied. These were based on information provided by the reporting company, including rearing location.

The ability of key protein suppliers to provide primary data - such as the Feed Conversion Ratio (FCR) and soy content in feed - has remained consistent, with 1 in 5 suppliers providing this data, with improvements in the robustness of sampling data being observed. Overall, the proportion of the total soy footprint derived from primary data has increased from 2020, to 61%. This is due to the consistency of the request to suppliers who have been in scope for multiple years, enabling them to start to collect this information earlier from their supply chain, and the development of a new sampling template for use when sampling particularly large supplier pools (hundreds to thousands of independent farmers).

See protein-specific conversion factor information and sources used in the Appendix.

## More than half of the soy reported has come directly from supplier calculations



# Determining 'deforestation free'



With many companies requiring evidence of 'deforestation free' supply as part of their soy policies, any claims must be supported by evidence that is appropriate to the certification mechanism being used. Therefore, as part of the validation process of the received declarations all suppliers were requested to provide evidence of the origin of the soy or certification claims.

Some companies, especially those with consolidated supply chains, were able to provide comprehensive evidence. However, other companies were not able to provide this. There were many reasons given for not being able to provide the requested documentation, though this was often due to documentation not flowing through the supply chain for certain certification mechanisms, rather than a lack of desire to provide the evidence.

Five classifications were therefore used to reflect the degree of certainty associated with claims (see right). The requirements to meet a classification differ according to the certification standard claimed, as on the following page. This is consistent with the 2019 classification of evidence, but with some new requirements for RTRS Credits to reflect the updates to their claim requirements.

## Standards addressing land conversion

Over 50 certification standards are offered for soy, and a large number of these are used widely within industry. This is in contrast to other commodities such as palm oil, for which very few certification standards are commonly used and accepted.

A number of assessments have been carried out between 2015 and 2021 to assess the degree to which soy certification standards deliver on 'zero net deforestation', with a lack of consensus over which standards meet the criteria for 'deforestation and conversion free'. Within this report, the named certification standards are those which are accepted within the policy of at least one of the retailers or food service companies involved in this reporting process.

## Categories for classification of certification evidence

### PHYSICALLY DEFORESTATION FREE

This category is only available for mechanisms that show physical flows of materials, whether due to certification or low risk origins. In the case of Mass Balance or Segregated claims, evidence must be shown to prove chain of custody of the certified materials. This is demonstrated through site certification and exclusive allocation of certified materials to a retailer or customer.

### DEFORESTATION FREE

For mechanisms which do not demonstrate physical flow, this is the highest category available. This covers claims from credit /certificate systems where sufficient evidence can be shown that these credits have been exclusively allocated to that retailer. In the case of RTRS credits, this is only the case when these have been transferred to the named retailer's account on the RTRS system.

### COMPANY CLAIM WITH EVIDENCE

The reporting company has supplied some evidence which demonstrates certified materials/credits have been purchased, however it is not clear that these have been exclusively allocated to a specific retail customer.

### COMPANY CLAIM

Evidence chain of certified materials breaks at the 2nd tier supplier level, with insufficient documentation provided to show flow to the reporting company. Alternatively, public statement of intent to show that credits are purchased to cover entirety of supply.

### NOT DEFORESTATION FREE

Insufficient evidence/no evidence has been provided by the reporting company to back up any certification claims. This also covers any other claims that fall outside of the list of accepted standards (e.g. FEFAC, Non-GMO) as they do not have provisions for protecting against legal and illegal deforestation.



# Classification of certification evidence

			PHYSICALLY DEFORESTATION FREE	DEFORESTATION FREE	COMPANY CLAIM WITH EVIDENCE	COMPANY CLAIM	NOT DEFORESTATION FREE
	Mechanism	Evidence					
RTRS	Credits	Transferred to Retailer		✓			
		Reporting company RTRS account			✓		
		Supplier RTRS Account - linked to reporting company			✓		
		Supplier RTRS account - not linked to reporting company (eg. 3rd tier supplier)				✓	
		Sector Initiative				✓	
		Statement of Intent				✓	
	Mass Balance / Segregated	Site Certification of reporting company	✓				
		Exclusive allocation from certified supplier to reporting company (non-soy handler to retailer)	✓				
		Exclusive allocation from certified supplier to reporting company (soy handler)			✓		
		Indirect supplier site certification only				✓	
ProTerra Danube ISCC Plus Cargill Triple S	Mass Balance / Segregated	Site Certification of reporting company	✓				
		Exclusive allocation from certified supplier to reporting company (non-soy handler to retailer)	✓				
		Exclusive allocation from certified supplier to reporting company (soy handler)			✓		
		Site certificate provided				✓	
CRS Bunge Pro S	Credits / Area Mass Balance	Reporting company purchased certificates		✓			
		Supplier purchased certificates - linked to reporting company			✓		
		Supplier purchased certificates - not linked to reporting company				✓	
Organic		South American Origin					✓
		Other Origin	✓				
Origin		Trader or feed supplier declaration	✓				

# Providing evidence of soy origin

Additionally to certification, many soy policies include sourcing from lower risk origins as a route to compliance. As such, the ability for suppliers to provide evidence of their soy sourcing locations is becoming increasingly important for them to be able to demonstrate they are meeting requirements.

As such, for the first time we introduced a section in supplier declarations this reporting cycle asking them to provide evidence of their soy origin claim.

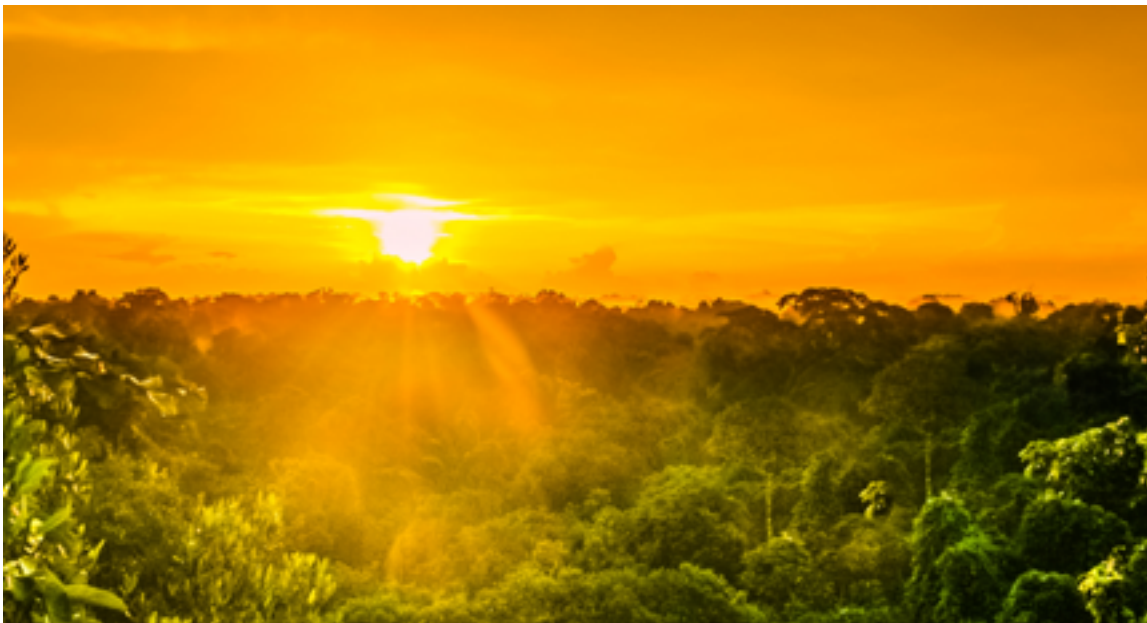
The aim of this request was to gather information on the type and quality of evidence currently available. This will also help to inform customers on how they can work with their supply chains to improve the robustness of evidence in the future.

The rating of this evidence was based on 5 categories (see right).

## Understanding the barriers to providing evidence

Where companies were not able to provide any evidence of the origin of soy, we asked what the barriers were to their company providing the evidence. Again, the aim of this was to provide customers with a greater understanding of the transparency issues within their supply chain, and how they might be able to work with suppliers, feed manufacturers and the soy traders to ensure the flow of this information down the supply chain.

The most commonly quoted barriers to providing traceability documentation are detailed in the results section.



## Categories for classification of origin evidence

### 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.

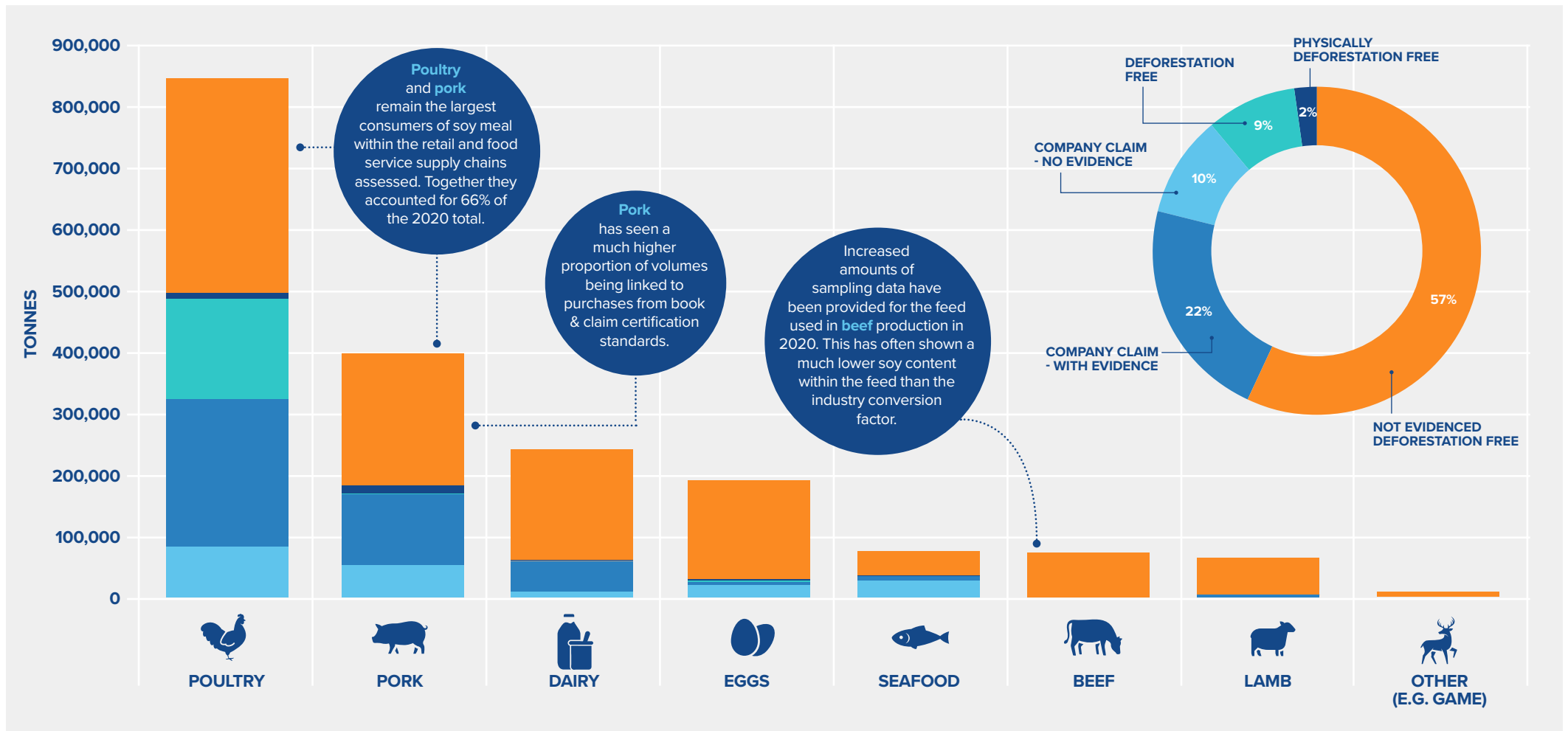
# Results

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Origin, Certification, Importers and Risk posed by soymeal in European supply chains



# 2020 Soymeal Footprint - 1.63M tonnes



→ Despite the global pandemic leading quite significant changes within individual supply chains (increased demand for certain foods vs counter closures), the overall picture in terms of the lead animal-based products for soy meal use remains consistent with previous years.

→ The distinction between the different production systems (integrated vs disaggregated) is lessening when viewing the much higher level of claimed certification for pork compared to previous years. However, the evidence level for these volumes remains lower than poultry.

→ This trend for increasing proportions of certification has not extended to other disaggregated supply chains such as beef and lamb.

# Certification levels have increased but an evidence gap still persists

→ The total proportion of the soymeal volumes with a deforestation free certification claim attached to it was 38% in 2020, with an additional 5% being claimed to come from areas not at risk of deforestation.

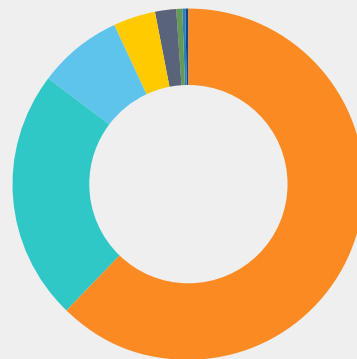
→ Pork has seen a particularly significant increase in the proportion of soymeal with RTRS credits associated with them, accounting for 34% of the total pork volumes. This is in line with ongoing engagement between some retailers and pork producers focusing on increasing certification in the sector.

→ The graph to the lower right shows how overall certification levels have changed year on year for the retailers who were involved in all three years of this reporting process, showing a significant increase between 2019-20. This increase was most likely driven by customer policies, with many retailers using the end of 2020 or 2021 as target dates for their deforestation policies. The impact of these is likely to be more visible in the 2021 results, where the difference made by the post 2020 requirements will be seen in full.

→ 24% of the certification claims made were able to be evidenced to the highest level ('deforestation free' or 'physically deforestation free').

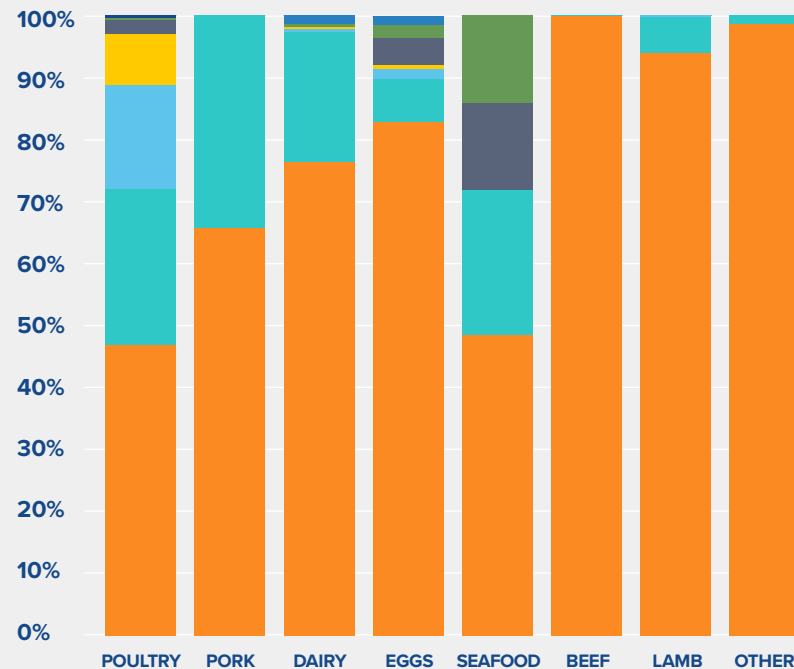
## Split of volumes claimed as certified by type

Most volumes are claimed against the RTRS and CRS credit schemes

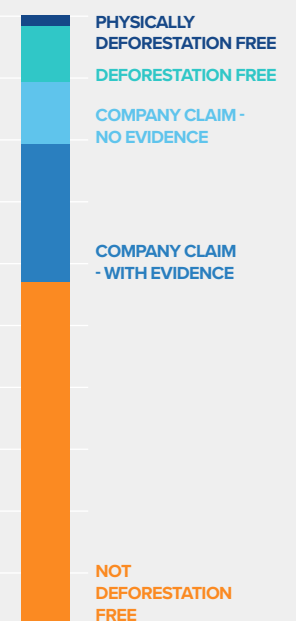


NOT EVIDENCED DEFORESTATION FREE	62%
RTRS	23%
CRS	8%
CARGILL TRIPLE S	4%
PROTERRA	2%
ORGANIC	0%
DANUBE SOY	0%
ISCC PLUS	0%
BUNGE PRO S	0%

## Certification rates for different animal-based product types

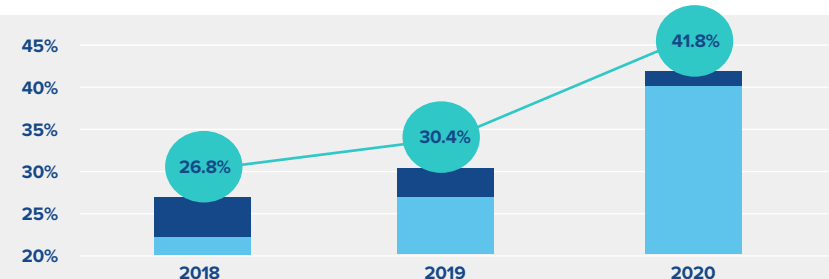


## Evidence of certification



## Year-on-year comparison

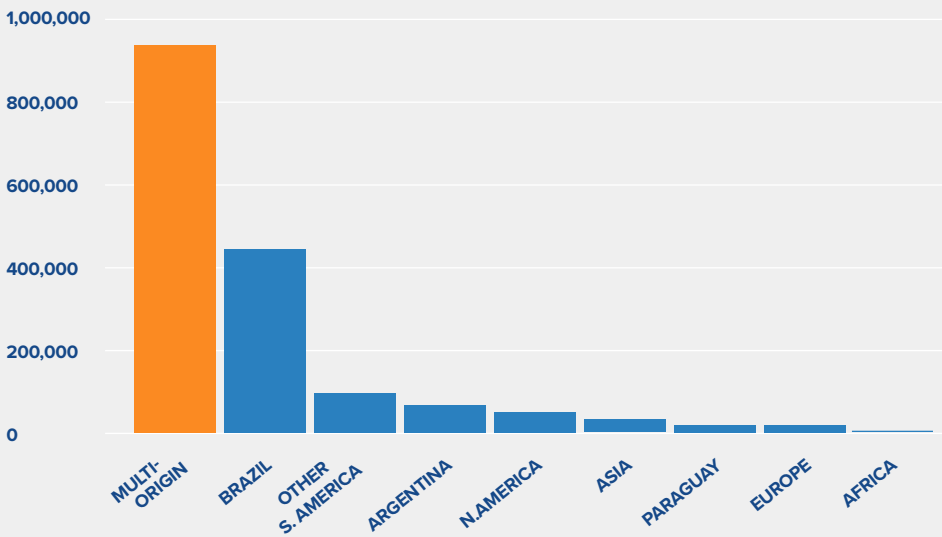
As the scope of the data request increased to new categories (e.g. prepared meals), the proportion certified to a physical scheme decreased



# A small number of origins and importers still dominate soymeal supply

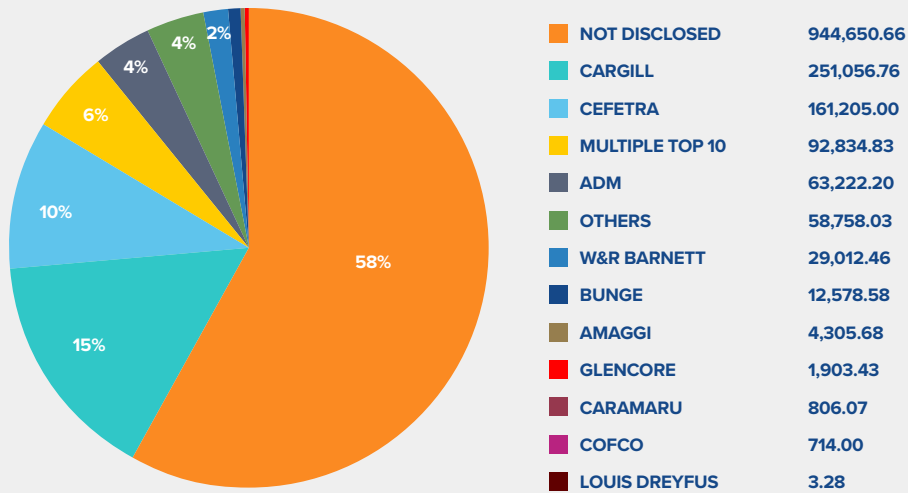
## Origin

- 57% of the total soy volumes for 2020 were classed as 'multi-origin'.
- Brazil remains the largest contributor to the soymeal volumes for the participating supply chains, making up 27% of the total soymeal volumes (20% in 2019), or 62% of all of the volumes linked to a single origin. This is most likely driven by the high levels of transparency within poultry supply chains, where the high-pro soymeal provided by Brazil is a significant feed ingredient.
- South America dominates, collectively contributing 38% of the total volumes (36% in 2019), or 87% of all of the soymeal with a declared single origin.
- Of the sub-national regions named, areas such as Mato Grosso, Matopiba, Para, Goias and Maranhao appear frequently.



## Importers

- 2020 saw some diversification within the top named importers, with Cefetra now representing 10% of declared volume (5% in 2019) and ADM now 4% (1% in 2019).
- Cargill remains the most significant single importer across all of the participating supply chains, contributing to 15% of the total soymeal volumes (19% in 2019).
- The proportion of the total footprint being associated with two or more of the largest importers, but where the reporting company is unable to split the volumes per trader ('Multiple Top 10') has remained similar. This suggests that achieving this attribution of volumes is still difficult for many suppliers, even when they have visibility of the named soy traders present in their supply chain.



# Transparency has been increasing over time...

When compared across the retailers who have been involved in the past three collective assessments, transparency up the soy value chain has been increasing year-on-year.

## Importers

Over 41% of the soymeal from 2020 reported by the companies in these supply chains was linked back to a trader.

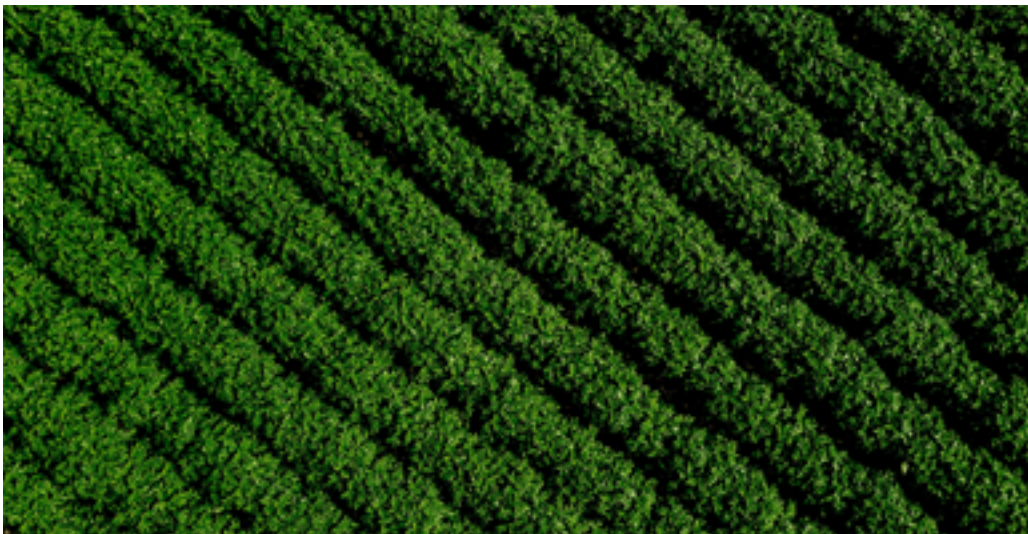
The greatest increase was between the first two years of this data collection, with knowledge within the supply base increasing on what is being required for reporting.

## Origin

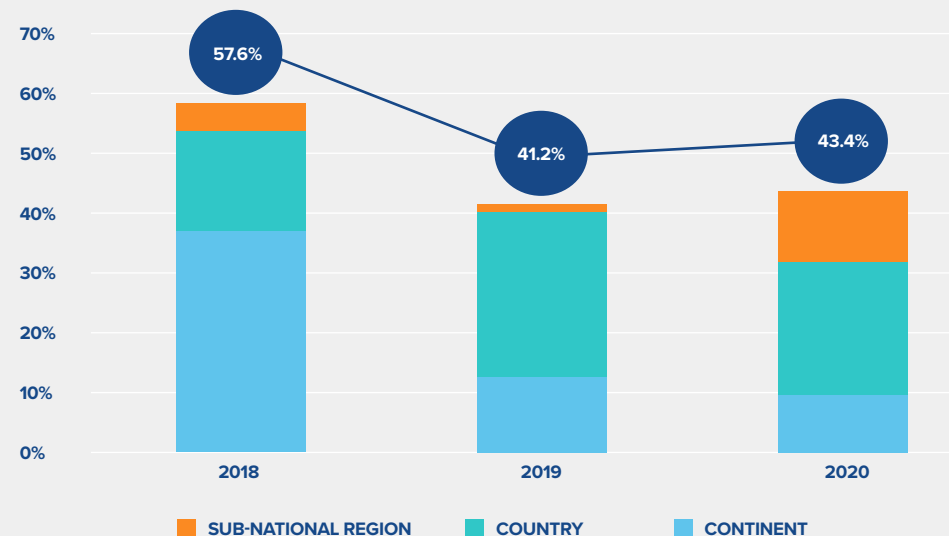
In contrast, traceability to country of production is a more inconsistent. The changing reporting scopes have had a much higher impact on the overall percentage traceable compared to the 2018 baseline.

With the expansion of several of the retailer's scopes to include animal proteins used as ingredients in processed foods, as well as other types of products beyond poultry and pork, the percentage of the overall footprint traceable back to a named origin actually decreased in 2019. However, of what was reported, a slightly higher proportion was linked to a specific country, compared to a higher proportion just to continent in 2018.

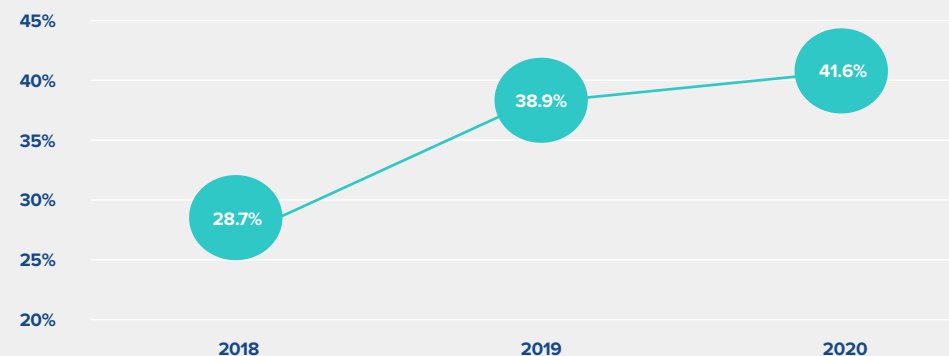
2020 saw an increase, both in terms of proportion of soymeal footprint traceable to origin and, more notably, a sub-national region of production which has increased to 12%.



## % of soymeal with traceability to origin



## % of soymeal with traceability to importer



# ...But it is still limited in more disaggregated supply chains

## Origin

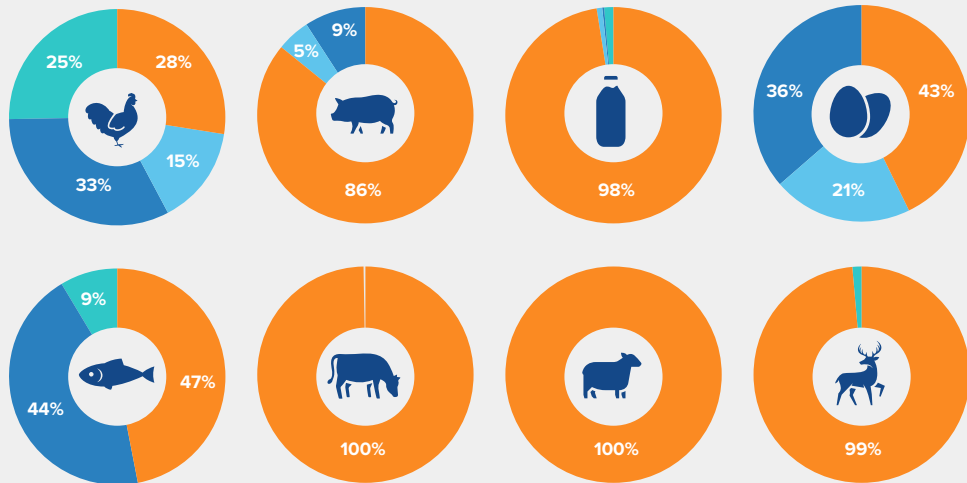
Animal-based proteins with more integrated feed systems, such as Poultry and Eggs, and those with large-scale industry level initiatives around soy within feed, in the case of Salmon, remain the supply chains with the most visibility back to origin.

Poultry is showing a significant increase in the percentage linked to sub-national regions, from <1% in 2019 to 25% in 2020. This has been driven in part by changing requirements within specific customer policies, requesting greater visibility beyond country of origin.

In contrast, the supply chains that are far more disaggregated - where producers rely on feed compounders or source from hundreds/thousands of independent farmers - continue to have no/low visibility back to soy origin. Some slight progress is shown by the proportion of the overall pork volumes with a known origin, however this is still very low. In some cases this is because the origins were known, but these were not able to be allocated to volumes of supply. In these cases, the volumes had to be recorded as 'Multiple origin'.

### On location of origin

NOT KNOWN/ DECLARED   CONTINENT LEVEL   COUNTRY LEVEL   SUB-NATIONAL REGION



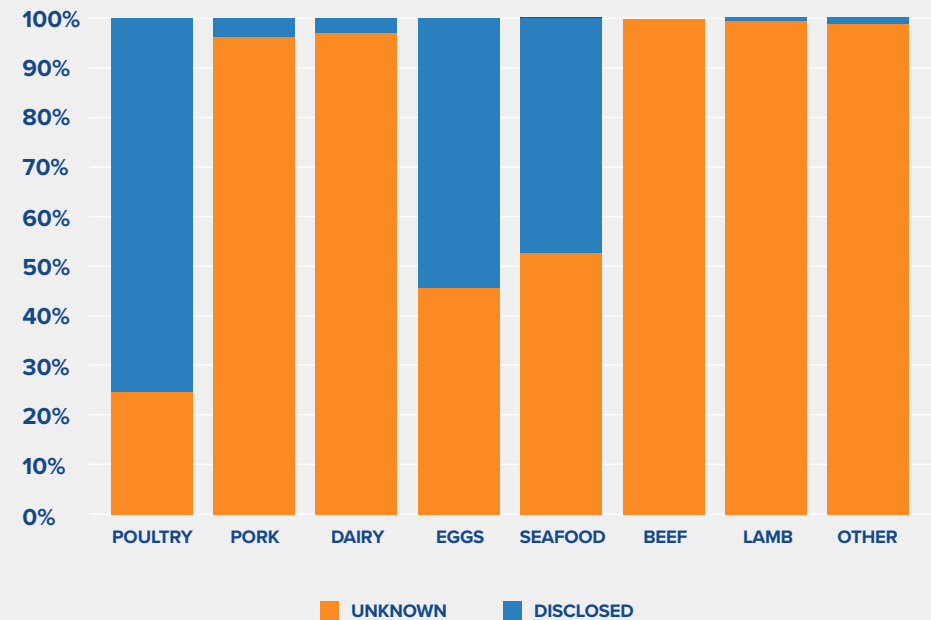
## Importers

This same pattern can be seen with importer disclosure, with those same integrated supply chains having a far higher proportion of their overall volumes linked back to a specific soy trader.

This is particularly the case for poultry and eggs, where the use of integrated Poultry Units (IPUs) for feed production means that producers are far more likely to purchase soy as a material, and therefore have a direct relationship with the soy trader. Poultry saw a significant increase in soy meal linked with a disclosed trader, increasing to 75%, compared to 67% in 2019.

Eggs and seafood remained relatively stable, both increasing by 2%.

Again, as with origin, trader disclosure remains low with disaggregated supply chains, particularly in beef and lamb with <1% of volumes linked to an importer. For pork, though some information on traders present in supply chains was provided, again this was unable to be attributed to specific volumes.





# Unblocking the flow of information down the value chain

## Link between transparency and certification

Of all of the soy meal volumes being linked to a specific origin, 70% also have certification claims attached to them.

In fact, for those volumes where a physical form of certification was being claimed, 94% were linked to an origin of soy production and 72% to importers. This compares to just 22% and 26% respectively of uncertified volumes.

This is indicative of several things:

- Certifications that provide a physical link to the soy supply chain, as well as providing the flow of materials, also enable the flow of other information down the soy value chain. Certification is therefore being used as a form of traceability.
- Production systems which are set up in a way that means a greater direct influence on traders (such as poultry) for gathering this information also happen to have higher certification levels which are able to be compliant with retailer policies.
- More aggregated supply chains, with less actors and therefore less dilution of information, are both more effective at flowing information down the supply chain, as well as being more suited to implementing chain of custody flows for certification.

## Evidence of origin

2020 was the first year where companies were asked to provide evidence of any soy origin claims.

Of all of the soy meal volumes that were linked to an origin, just over 68% also had some form of evidence provided.

The robustness of this evidence varied significantly, but usually took the form of:

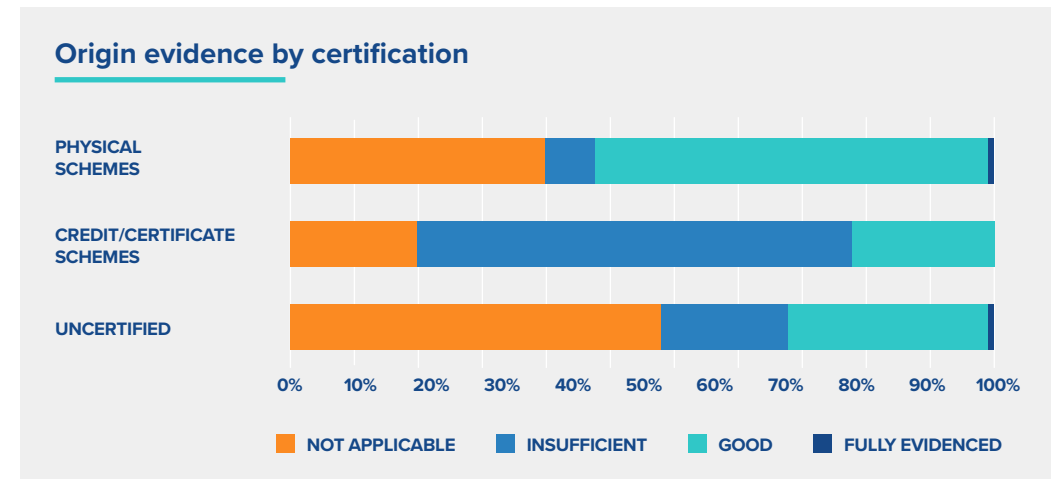
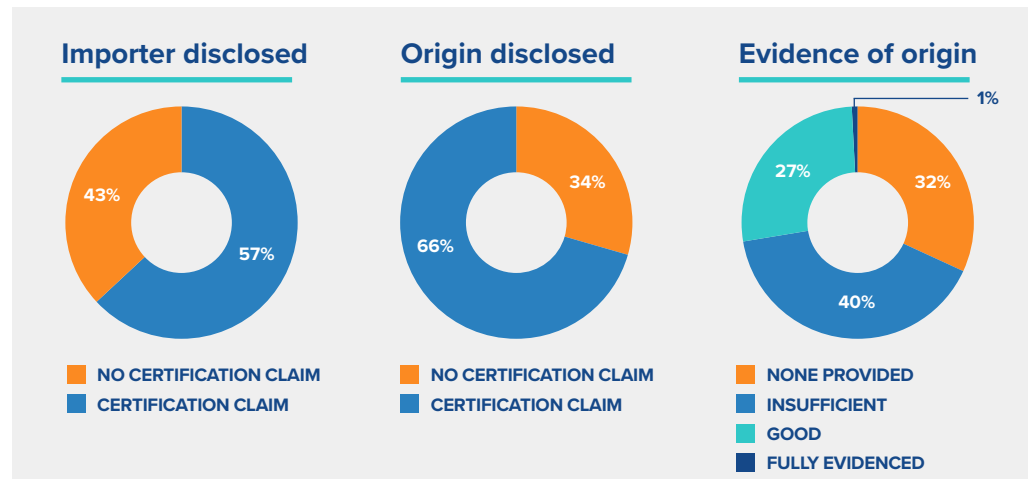
- Certificates of physical certification stating country of origin
- Emails or letters from feed manufacturers and/or importers stating countries of origin
- Visibility of soy deliveries to feed manufacturers, showing the origin of each specific load

When looking at the evidence provided where origin was declared, this was generally stronger for physically certified soy volumes, with proportionally higher levels of 'good' rated evidence than those certified to credits or with no certification claim attached.

## Barriers to providing origin evidence

When asked why they were able to provide any evidence, companies gave a range of answers:

- **Caution around commercial confidentiality** – many stated that either their suppliers, or they themselves, were unable to share any documentation as these were considered to be commercially sensitive. This is not a view that was shared uniformly across the respondents however, suggesting it is not an insurmountable barrier.
- **Feed/raw materials suppliers not providing documentation** – some fed back that their suppliers only sent emails through confirming the origin of the soy, but didn't provide any more robust documentation.
- **Information held at the farmer level** – for those sourcing from a large number of farmers, we had some responses that the information had been provided to the farmers by the feed merchants, but that information had not yet flowed back to the reporting company. Large numbers of producers, and use of feed compounders were also mentioned as barriers to being able to collect this evidence.



# Findings

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

# Key Findings



1.

## **Levels of certification are climbing, though physically certified volumes remain low**

With many customer policies requiring large scale suppliers of soy meal to transition to the use of credits as a minimum form of certification by the end of 2020, we have seen an increase in claims against Book and Claim (B&C) certification schemes, particularly linked to pork volumes. However, there has not been the same rate of increase with physical forms of certification, which remain almost wholly claimed within the more integrated supply chains where chain of custody schemes are able to be implemented. The rise in B&C also hasn't been seen across other animal products that rely on compound feed mixers, such as beef or lamb.

2.

## **Increases in transparency are limited to certain sectors**

There is a link between companies claiming certification and the relative level of transparency back to importer and country of origin, however it is not clear if this is causal, if it is only reflective of the level of complexity and the number of actors in the specific supply chains, or if it is being driven by customer policies requesting all three.

3.

## **Evidence flows remain blocked by caution around commercial confidentiality**

Based on responses from those unable to provide evidence of soy meal origin, there is a resistance within the supply chain to provide documentation, and an inconsistent view as to whether this information is too sensitive to request from their suppliers/pass on to their customers. Where the evidence flows currently exist, the most robustly audited and evidenced of these tend to be where physical certification (e.g. segregated materials, non-GMO), or origin specific certifications (e.g. USSEC, Donau Soja) is also in place.



# Retailers & Food Service



1.

## **Certification is increasing due to customer policies, but growth is mostly in Book & Claim**

Many retailers and food service businesses had targets for minimum certification levels by the end of 2020 or 2021, with suppliers being asked to choose from a suite of different accepted standards. With the availability of physically certified soy so low within certain supply chains – such as those for feeding pellets – many suppliers have relied on B&C certifications, in the form of credit or area mass balance (AMB) schemes in order to demonstrate compliance. This has meant that the current policies have had little impact in terms of capacity building for the flow of MB or SG materials into the market. The exception of this is for non-GMO certified materials flowing into some EU supply chains.

2.

## **Evidence levels insufficient for upcoming due diligence regulations in the EU and UK**

Though the mechanisms for evaluating compliance are yet to be set, the current level of origin disclosure and evidence are unlikely to provide the information that will be needed to demonstrate sufficient rigor for due diligence checks. The remaining 53% of volumes not linked to an origin – either due to this not being collected by the reporting company, not being able to be proportionally split between different sourcing regions, or choosing not to disclose this information – is a significant gap which will require engagement with the supply chain, feed manufacturers and soy importers to solve.

3.

## **Variation in the scope of retailer policies is causing confusion**

Pork, beef and dairy remain low on levels of disclosure, due to the complexity of collecting data or disseminating feed requirements within these supply chains, where ‘any origin’ soy or compound feed purchases are the norm. As a result of this complexity, more holistic, whole industry approaches are needed to drive large scale change, and engaging further up the soy value chain (e.g. feed manufacturers, soy traders) will be essential.

4.

## **Need to consider capturing actions beyond certification**

As the view of a responsible soy user expands beyond direct supply to look at how a company is taking action that impacts on the drivers of deforestation, there is a need to switch from a focus on clean supply chains to clean suppliers. The way that actions are being taken in the supply chain to drive greater change in the industry will therefore become increasingly important to capture. Though this is being done by some retailers through this process, there is an opportunity for this to be more widely used to measure and encourage progress.



## 1.

### **Resolution of information back to farm is increasing**

Where the level of robustness of the sampling data submitted for reporting company has increased, we have often seen significant changes in their calculated soy meal footprint verses the standard industry conversions. This has been most often observed either where there is significant variation in potential soy inclusion rates in feed dependent on their rearing style (e.g. beef or lamb that can be wholly grass fed) or where the company is making commitments to reduce soy inclusion within feed.

## 2.

### **Quality of evidence provided for certification and origin is highly variable**

For certain certification mechanisms such as CRS or Cargill Triple S, certificates are readily provided demonstrating a clear connection between the final product and the claim. However, for physical chain of custody mechanisms, there were sometimes issues with these volumes being linked to feed manufacturers who are certified to handle the materials, or evidence to show that these certified feed volumes flowed to the livestock producer. The new mechanism for claiming RTRS Credits on behalf of another company introduced in 2020 is also being inconsistently used, which has lead to many claims being rated lower than they potentially could be in the 'company claims' classification rather than in the confirmed 'deforestation free' one.

## 3.

### **Lack of consistency in what information is seen as 'commercially confidential'**

Particularly in the case of trader disclosure and evidence of origin, there seems to be differences in what information is seen as being too sensitive to be shared, either by companies further up the supply chain, or by reporting companies. As far as we are able to determine, this lower level of disclosure does not seem to be linked to a single importer or feed company, with companies linked back to the same soy importer providing different levels of disclosure. This suggests that in many cases this barrier to transparency can be overcome, particularly as this is likely to be key to demonstrating compliance with due diligence requirements and customer policies in the future.

## 4.

### **Knowledge gap for food manufacturing businesses remains**

Companies who are several steps removed from the feed manufacturer within the supply chain are still mostly unable to provide any information on the soy within the feed, including origin or certification, despite many of them being requested to complete this information across multiple years. This includes companies such as bakeries, food-to-go or ready meal suppliers.



# Recommendations

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For key stakeholders in the downstream soy value chain

# Leveraging your area of influence for change



## Feed Industry

- Create standard processes for capturing and sharing origin information with customers, regardless of their relative size.
- Work with producers, retail, food service and policy makers to assure that the evidence approach for due diligence is fit for purpose.



## Supply Chain

- Engage feed suppliers and traders on your requirements around traceability and disclosure to ensure any blockers on the flow of information are fully understood.
- Communicate expectations for evidence and data to your direct suppliers early to ensure sufficient time for them to compile the information, particularly where 'any origin' use is common.
- Standardise public reporting approaches to increase transparency.



## Retailers & Food Service

- Engage further up the soy value chain (e.g. traders and feed manufacturers) to address the barriers to evidence flowing through the supply chain.
- Set clear expectations for producers in supply chains where physically certified soy is not currently available.
- Standardise public reporting approaches to increase transparency.



## Policy Makers

- Create clear requirements for documentation needed for a company to fulfil due diligence requirements.
- Promote data transparency at the industry level to ensure the needed disclosure of data at each part of the soy value chain.
- Push planned UK due diligence requirements beyond legality to all forms of deforestation and land conversion.

# 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.

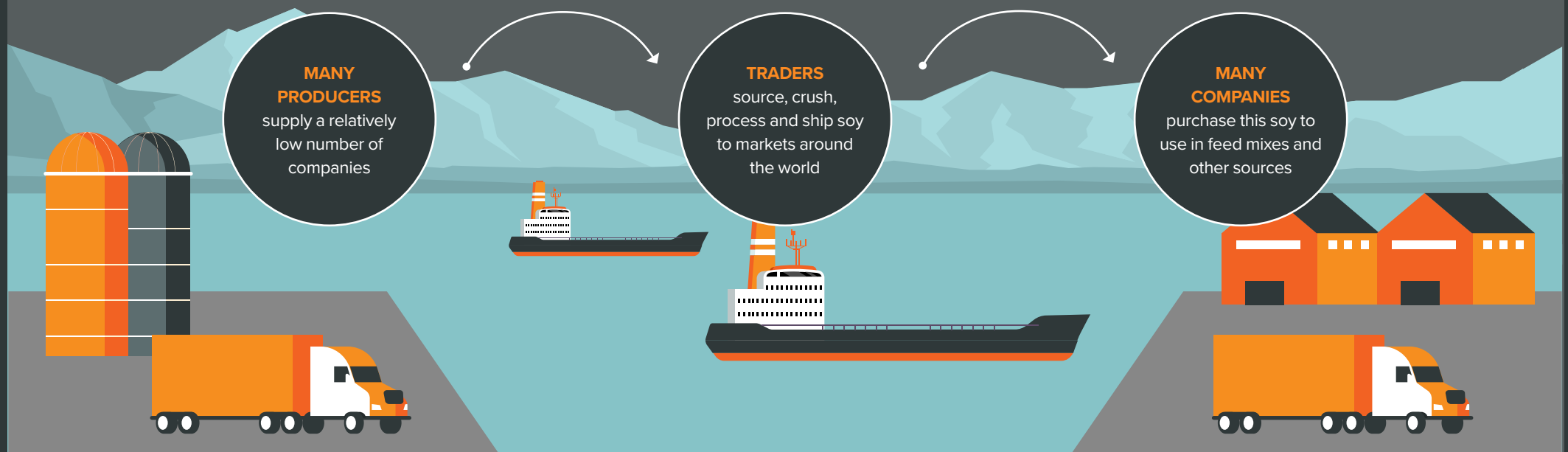
As relatively few companies are present in the soy trade out of South America, focusing on transparency with these businesses will efficiently identify responsible suppliers that are proactively seeking to address key environmental and social issues. The assessment bypasses the visibility

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](mailto:info@soytransparency.org).

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



# References

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**Instituto Nacional de Pesquisas Espaciais (INPE), 2020** – TerraBrasilis

**FAIRR, 2021** – Engagements: Amazon Soy Moratorium

**Statista, 2021** – Soybeans import volume worldwide by country

**IDH, 2020** – IDH European Soy Monitor

**Round Table on Responsible Soy (RTRS), 2020** – 2019 Management Report

**Greenpeace, 2021** – Destruction: Certified

**Soy Transparency Coalition, 2021** – 2020 Trader Assessment: Public Report

**WWF, 2021** – Soy Traders Scorecard

**Mighty Earth, 2020** – Ranking Soy Traders' Performance on Deforestation

**FCRN, 2020** – Soy: food, feed, and land use change

**The Consumer Goods Forum (CGF), 2016** – The Sustainable Soy Sourcing Guidelines: Second Edition

# Appendix

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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.

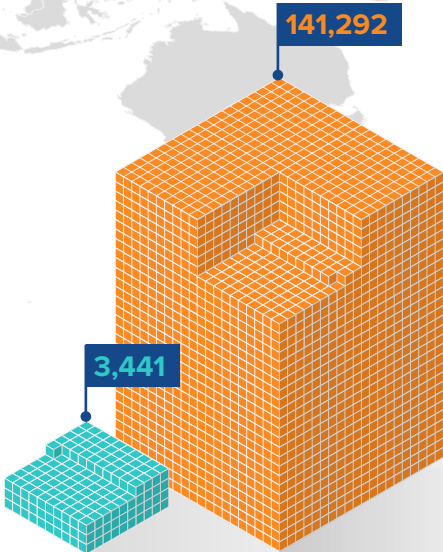
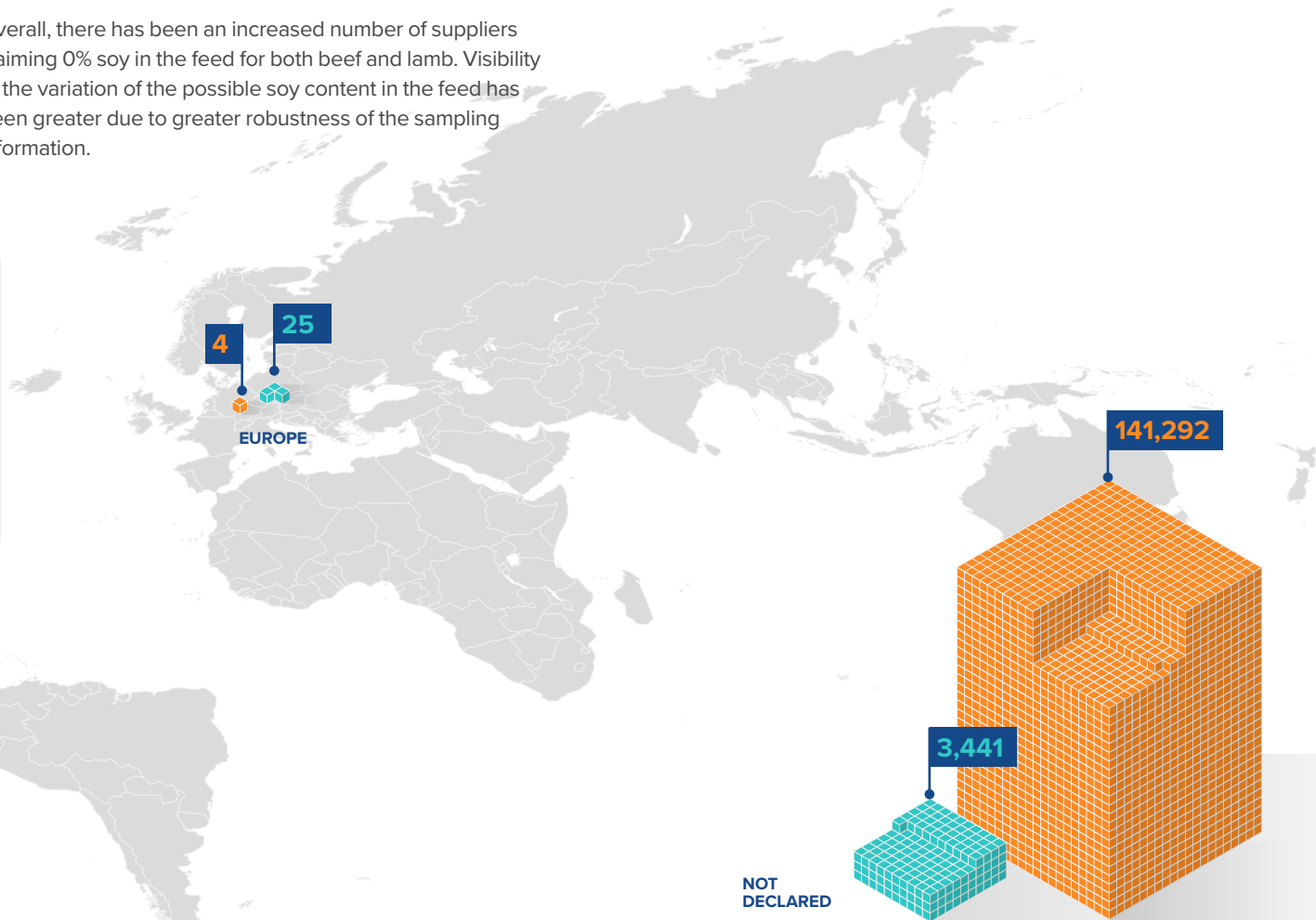
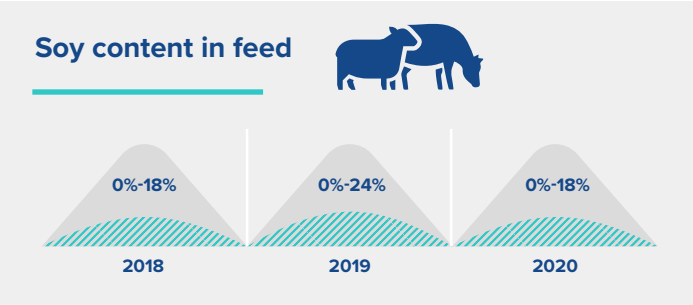
Lamb can be seasonally produced in Europe or New Zealand. Some information was provided from farmers and feed, which showed significant variation among farmers, with some using no soy and others using up to 18% soy within their feedmix. Often, soy was used in feed for only part of the animal's diet, 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. This is a knowledge area that should be improved by supply chain actors; where soymeal was estimated to be present, very few suppliers were able to provide information regarding its origin or certification status.

Overall, there has been an increased number of suppliers claiming 0% soy in the feed for both beef and lamb. Visibility of the variation of the possible soy content in the feed has been greater due to greater robustness of the sampling information.

 = 10 TONNES OF DEFORESTATION FREE CLAIM

 = 10 TONNES OF NOT CERTIFIED DEFORESTATION FREE

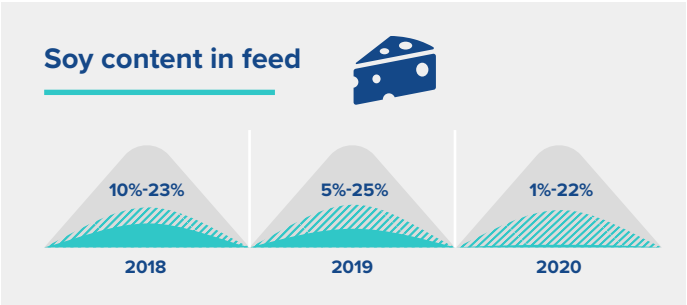


NOT  
DECLARED

# Butter & Cheese

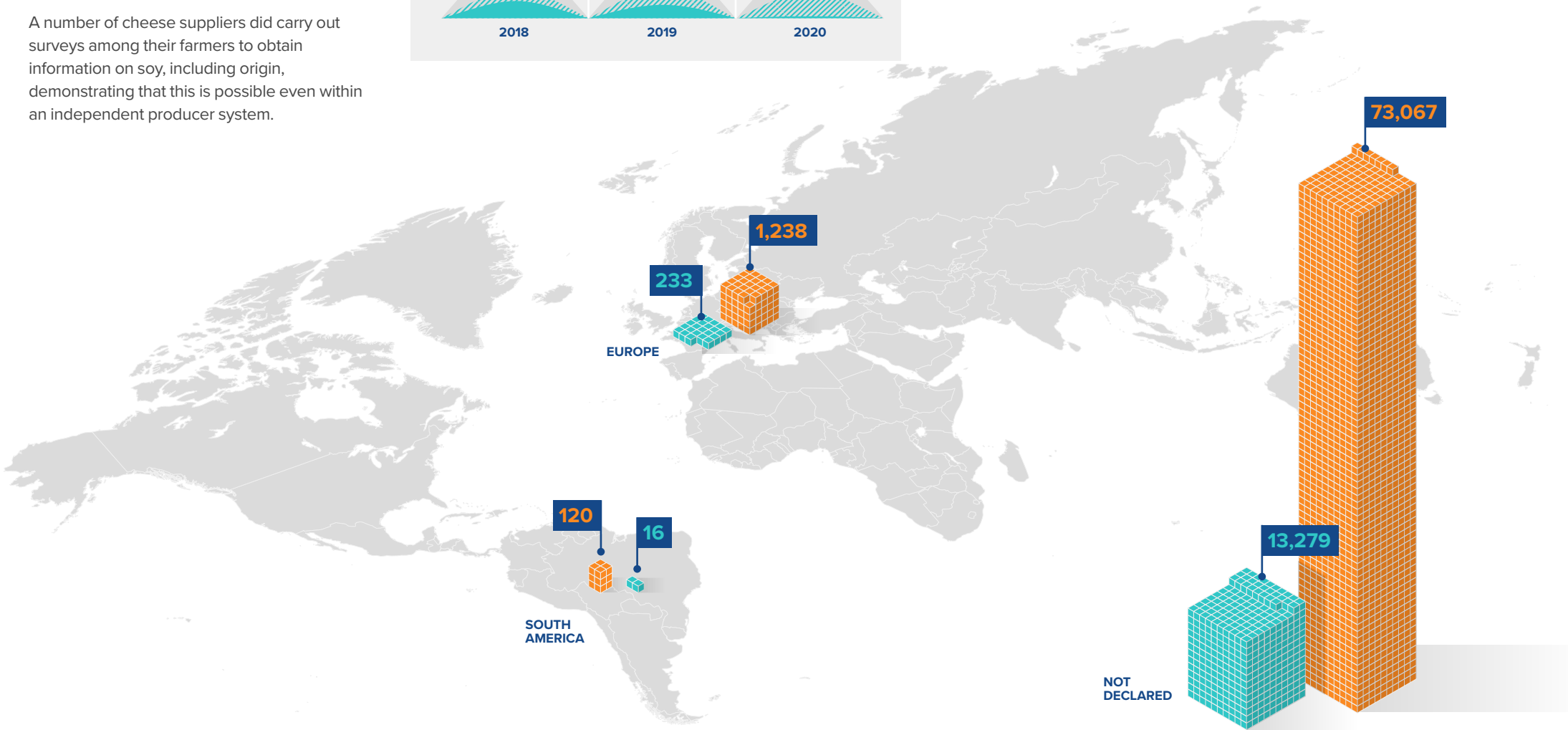
Limited information was able to be provided from suppliers of butter, cheese, cream and yoghurt. The companies that are responsible for reporting this information may make dairy products from a variety of sources that may not always be able to link back to the independent producer system they originate from.

A number of cheese suppliers did carry out surveys among their farmers to obtain information on soy, including origin, demonstrating that this is possible even within an independent producer system.



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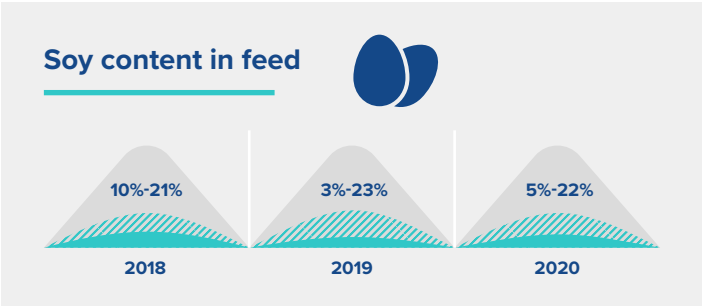
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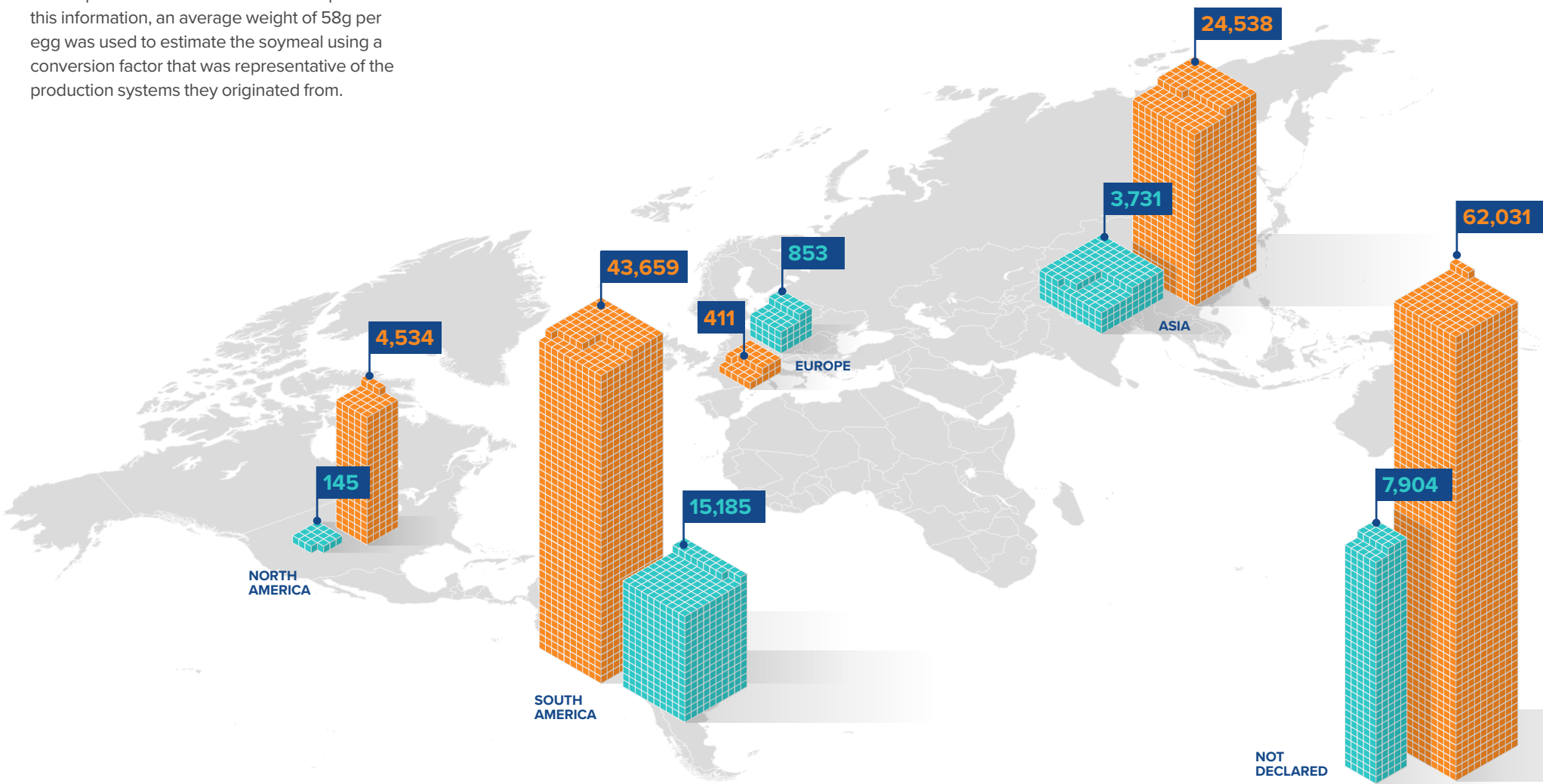
# Eggs

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.

Where producers haven't been able to provide this information, an average weight of 58g per egg was used to estimate the soymeal using a conversion factor that was representative of the production systems they originated from.



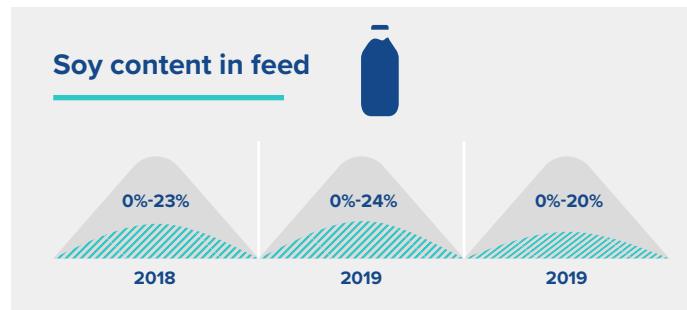
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# Milk

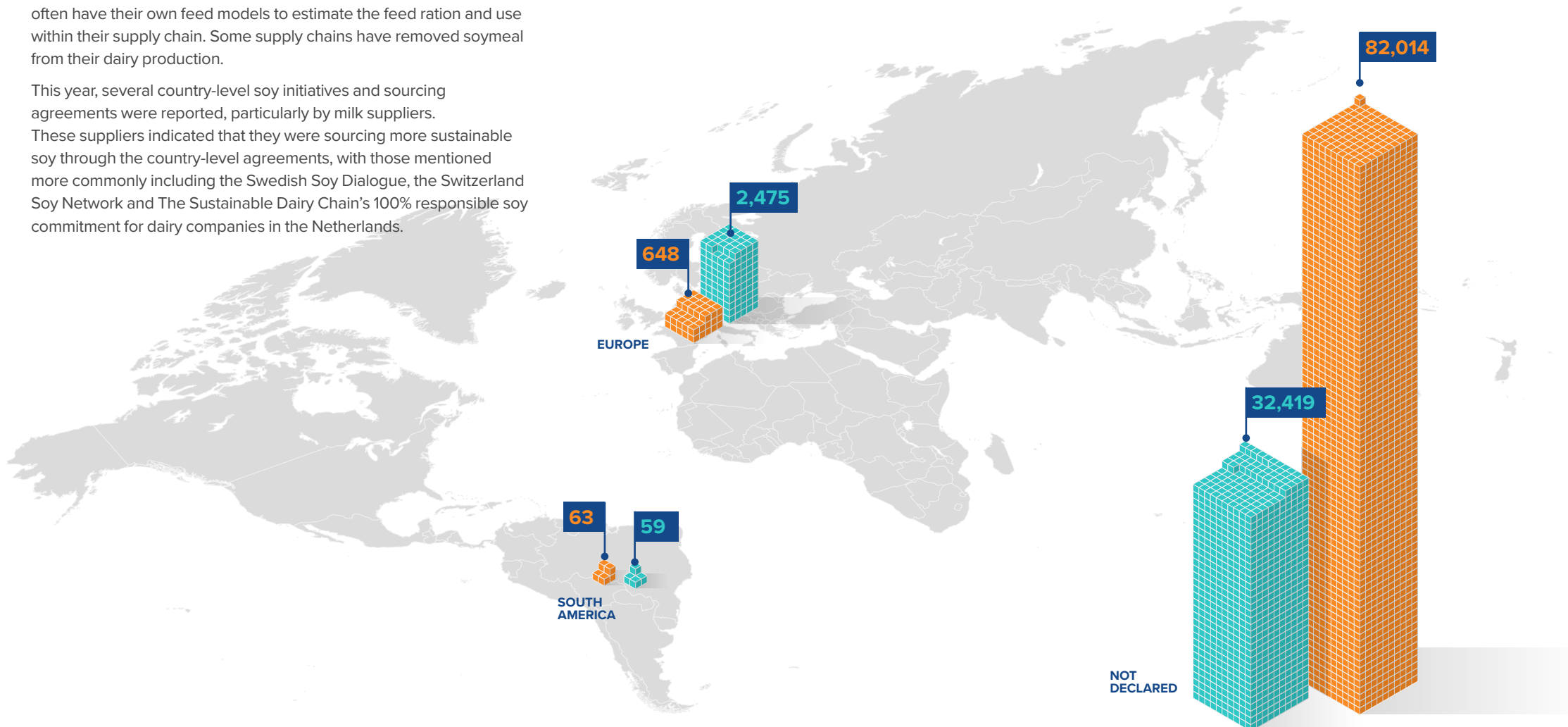
A few major dairy producers contract directly with farmers throughout Europe for the majority of fresh milk and dairy supply. Non-European dairy is a small part of the overall supply into European retail and food service markets. The sector is largely consolidated with just a few major producers, some of which have company policies to purchase deforestation free 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.

This year, several country-level soy initiatives and sourcing agreements were reported, particularly by milk suppliers. These suppliers indicated that they were sourcing more sustainable soy through the country-level agreements, with those mentioned more commonly including the Swedish Soy Dialogue, the Switzerland Soy Network and The Sustainable Dairy Chain's 100% responsible soy commitment for dairy companies in the Netherlands.



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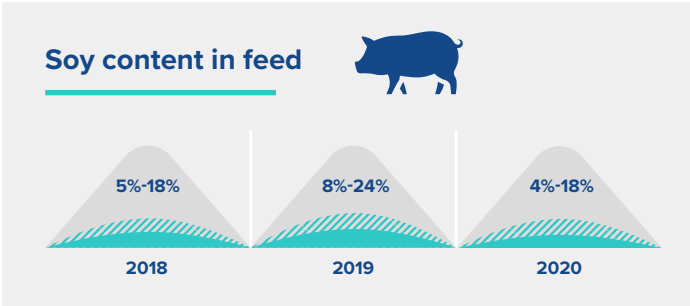
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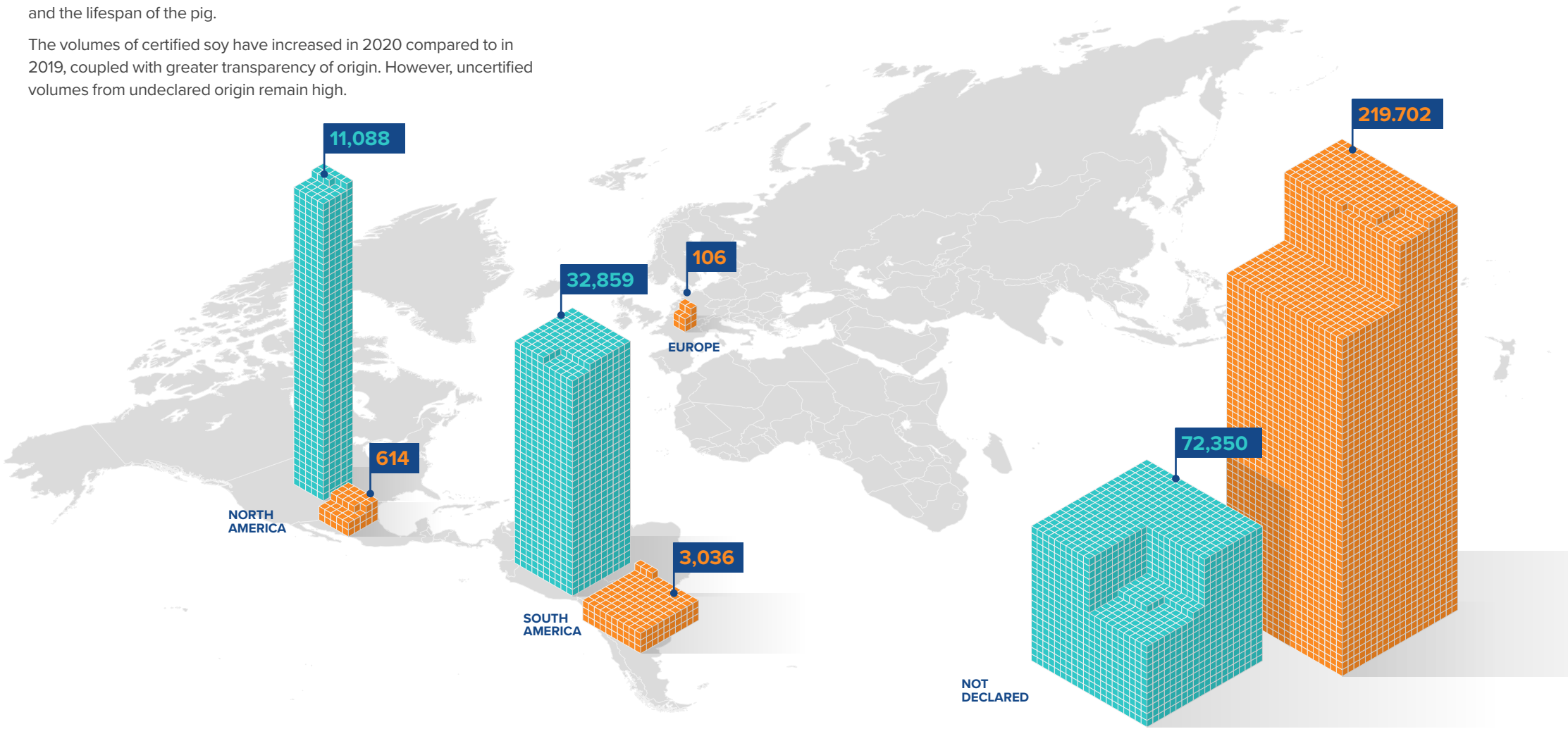
# Pork

Rearing swine 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. Suppliers reported that they are investing time in feed innovation and engaging their farmers on feed practices. Depending on the supplier, fairly wide variations in soy rations within diets were reported, even within the same company, due to indoor and outdoor rearing, variety, and the lifespan of the pig.

The volumes of certified soy have increased in 2020 compared to in 2019, coupled with greater transparency of origin. However, uncertified volumes from undeclared origin remain high.



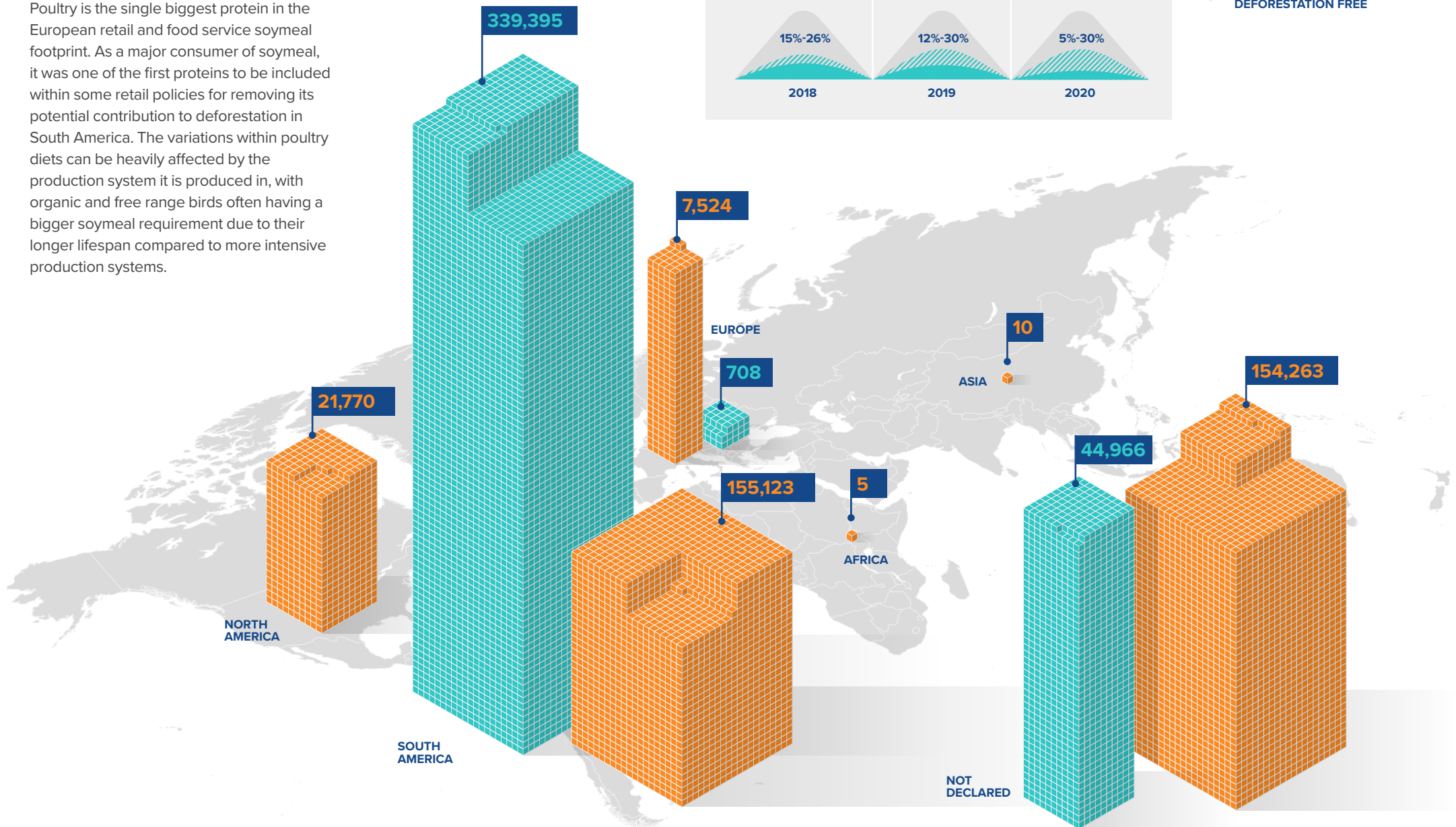
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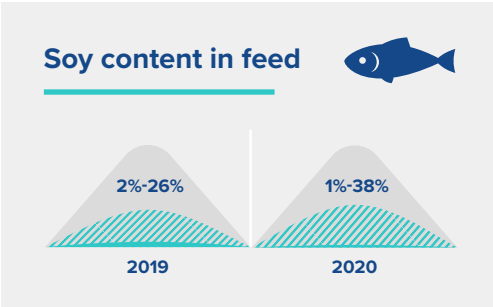
# Poultry

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 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.



# Salmon

The European salmon production industry is highly consolidated with just a few key feed suppliers. These 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. 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 soya production. However, as with other proteins, little evidence was able to be provided with the salmon producer's name linked directly to the soymeal supply. As such, this livestock group has a large proportion of company claims associated with its supply.



= 10 TONNES OF DEFORESTATION FREE CLAIM

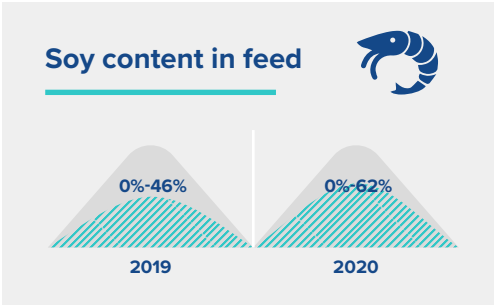
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# Other seafood

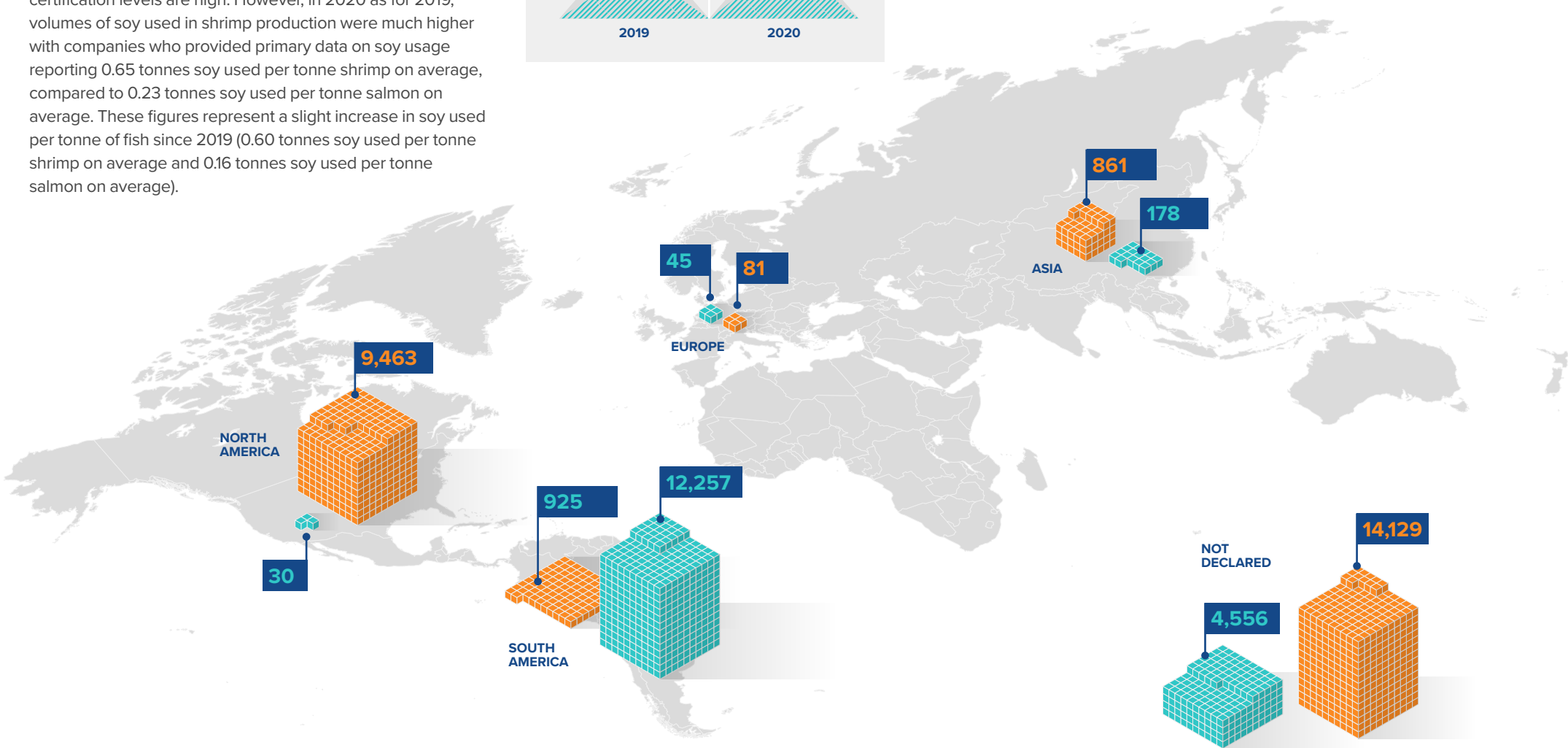
Soy is used in the diets of some farmed fish in addition to salmon, most notably shrimp, suppliers of which made up the vast majority of companies surveyed.

Shrimp production is largely concentrated in South East Asia, and use feed companies based in the region. Similarly to salmon, only a small number of feed suppliers are used, and certification levels are high. However, in 2020 as for 2019, volumes of soy used in shrimp production were much higher with companies who provided primary data on soy usage reporting 0.65 tonnes soy used per tonne shrimp on average, compared to 0.23 tonnes soy used per tonne salmon on average. These figures represent a slight increase in soy used per tonne of fish since 2019 (0.60 tonnes soy used per tonne shrimp on average and 0.16 tonnes soy used per tonne salmon on average).



= 10 TONNES OF DEFORESTATION FREE CLAIM

= 10 TONNES OF NOT CERTIFIED DEFORESTATION FREE





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