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Study on the Soy beans market for Italy

A desk research report by Kantar TNS Business Intelligence

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SOY CANADA

Canada

Growing Forward 2

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1 PROJECT METHODOLOGY

This study was based on both primary and secondary sources. Due to the nature of the market and product, interviews with representatives of the soy importers and representatives of industry associations were identified as being the most important source of information.

The project was conducted in the following stages:

1. **Secondary research:** Secondary sources part of the research comprised of available financial statements of companies, local language specialist newspapers, business press, reports, information published by government bodies and non-government organizations, documents released by major market players, official financial statements, and official statistics.

2. **Primary research:**

- Creation of a database of potential respondents and research tools (discussion guide, questionnaire). The database was based on the secondary research findings.
- **Two (2) in depth interviews** with selected market experts and key opinion leaders: Interview with the president of Assitol Association and manager in Assalzoo Association.
- **Four (4) in-depth interviews** with representatives of the companies identified as relevant and suitable (Ital Green Oil, Docks Cereali, GTrade Systems, Borsari).

3. Data analysis and report writing.

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2 OVERVIEW OF THE ITALIAN AGRI-FOOD SECTOR AND INTERNATIONAL TRADE

- Agriculture is a rather important sector of the Italian economy. The sector employs around 850,000 people and the country is in the top three EU countries for agricultural production. Fruit and vegetables, viticulture and olive crops are the main sectors of Italian agriculture.

- In 2016 the gross value added of the agricultural sector at current prices was USD 35 B, 2.1% of the overall national value added. Compared to 2015 it decreased by 5.4% in current prices and by 0.7% in volume. With more than USD 35 B in 2016, Italy was the first EU28 country regarding gross value added in agriculture.

- Around 65% of Italian agricultural exports go to European countries. Germany is the most important destination for agricultural exports from Italy and by far the biggest trading partner - **about ¼ of total agricultural exports are destined for Germany**. Outside of EU, important export destinations are North America, Japan and Switzerland.

- In 2016, the EU-28 area represented 70% of Italian purchases abroad. At the same time, North America has been strengthening its role as a supplier to the Italian market, reaching around 12% in 2016. Asia also has been growing as a partner with about 8% both in terms of import and in terms of agri-food export.

- In general, Italy is especially dependant on imports in the primary sector where the imports are twice as big compared to the exports (USD 15.3 B as opposed to USD 8.1 B). Other import dependant sectors include meat, dairy products, oils and fats, as well as animal feed. The biggest export products from Italy include cereal derivatives (pasta), fresh fruit, processed vegetables, and wine.

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ITALIAN SOYBEAN MARKET

- According to data from ISMEA, Italy imported **1.8 MT** (Million Tons) **of soybeans and 2.06 MT of soybean meal in 2016.** Most of the imports were intended for domestic consumption.

2.1 Import

- Italy is one of the biggest European producers of animal feed, and accordingly it imports large quantities of soybeans and soymeal. Soybeans are predominantly imported from the U.S., Brazil, and Paraguay, while the biggest source of soy meals had traditionally been Argentina and to lesser degree Paraguay and Brazil.

- Italian soybean **imports from the US** have increased dramatically since 2012, when there were almost no imports. Since, the imports reached more than 300,000 tons.

Soybean import to IT [000 T]	2012	2013	2014	2015	2016	Jan-Jul 16	Jan-Jul 17	Var.% JanJul 17/JanJul 16
Brazil	21	338	417	294	519	372	348	-6.4
USA	2	82	240	148	308	172	76	-55.6
Ukraine	597	391	215	70	65	0	95	+++
Paraguay	174	225	187	142	183	102	170	67
Argentina	13	6	29	38	59	41	0	-
Slovenia	206	24	43	40	17	7	41	+++
Other	190	322	249	275	304	170	208	22.5
Total	**1,203**	**1,388**	**1,380**	**1,007**	**1,455**	**864**	**938**	**8.6**

Source: ISMEA 2017

- This trend has been opposite for Ukraine and Slovenia, which in 2012 exported 597 and 206 KT while in 2016 these countries exported only 65 and 17 KT respectively. The main reason for such a major decrease of imports from Ukraine was stated to be low quality and the lack of transparent contractual terms as the rest of export countries sell via CBOT (Chicago Board of Trade), while Ukraine has its own standards.

Soymeal import to IT [000 T]	2012	2013	2014	2015	2016	Jan-Jul 16	Jan-Jul 17	Var.% JanJul 17/JanJul 16
Argentina	1,018	873	1,124	1,133	1,443	797	990	24.3
Paraguay	127	150	336	345	326	193	188	-2.4
Brasil	160	250	251	226	140	67	36	-46
Other	666	534	389	492	154	109	61	-44
Total	1,971	1,807	2,100	2,196	2,063	1,165	1,275	9.5

Source: ISMEA 201

- **Argentina is responsible for roughly 70% of the total imported soymeal in Italy** and only in 2016, the country exported 1.4 MT of soymeal to Italy.

- When it comes to the perception in Italy, **South American soybeans are considered to be of the highest quality**, especially the ones coming from Paraguay and Brazil, which have protein content: 35-36%, 19.5-20% of oil, according to the interviews. **Argentinian product is considered to be on the same quality level with Canadian.**

- The vast majority of soybeans and soymeal are GM products and are used in the feed business. At the same time, Italy also imports small quantities of non-GMO soybeans. The scale of these imports are is much lower and in 2016 Italy imported around 5 KT of such product.

Import to IT [000 T]	2012	2013	2014	2015
Non GMO Soybean	0.7	2.0	1.0	5.0

Source: SINAB (2018)

2.2 Crushing

- **The total availability of soybean in Italy was more than 3.2 MT in 2016** (domestic production plus imports). There is no exact information of the split for different uses, but the interviews revealed that around 100 KT from the domestic production (non-GMO) goes to food sector, around 500 KT goes directly to feed sector, as an ingredient of feed but not transformed into meal, while the rest of the imported and domestically produced soybeans go to industry (crushers for oil and meal production, energy-biodiesel etc.). According to these calculations. **Over 2.5 MT end up in the crushing facilities around the country.**

- The main crusher is Cereal Docks crushing 2 KT/day of non-GMO beans, from local production and 3 KT/day from the U.S. and other origins.

2.3 Export

- Italy does not export a lot of soy products, as the **domestically produced non-GMO soybeans are mostly used in the food sector and the growing bio animal feed segment**, while the imported GMO soy bean and meal is used for the best part to produce animal feed which is used in the country.

- According to data from ISMEA, Italy exported only USD 23 M of soy bean and USD 51 M of soy meal, compared to USD 595 M of imported soy bean and USD 767 M imported soy meal.

2.4 Processing and feed sector

- Italy is a major European animal feed producer, and in 2016 the country produced **over 14 MT of animal feed.**

- According to information from Assalzoo, there were 429 active producers of animal feed in the country. Most of these establishments were located in Emilia Romagna (129), Lombardia (74) and Veneto (36).

	Units	2014	2015	2016
Production	MT	14.1	14.1	14.2
Value	EUR, M	6,360	5,860	6,020
Production prices	Change %	-13.5	-9.0	2.1
Labour cost	Change %	1.5	1.3	1.9
Plant utilization	%	60	60	60
Employees	Units	8,500	8,500	8,500
Exports	EUR, M	480	577	596
Imports	EUR, M	774	785	767
Trade balance	EUR, M	-294	-208	-171

Source: Assalzoo (2018)

- The large production of animal feed (only Germany, Spain and France have significantly higher production in the EU, while UK and Holland produce on similar level) provides Italy with high independence and guaranteed domestic animal feed self-supply. However, the country depends significantly on raw materials (soybeans and meal included) which could become a major issue taking into consideration the limited supply and the price volatility of raw materials.

- This is one of the major reasons why Italy was one of the countries that wholeheartedly supported the European Soy Declaration which aims to promote the European soy production. However, the **experts do not see Europe becoming a major producer and the dependence on imports will remain in long term.** Italy, as the biggest producer, has some more potential to increase the production (mostly as a replacement for maize in the country), and in mid-term the annual production of soy in Italy could grow to 1.5 MT, which will still provide lots of opportunity for exporters.

- Additional problem for the animal feed industry, that went under the radar but increased in relevance roughly in the last year, has been the changed position of the country in the GMO affairs. For years, Italy was vocal and opposed production of GM crops, but abstained from voting in the EU on topics of GMO imports. This has changed in 2017 when Italy voted against for the first time on GMO imports, on products that have received approval from EFSA (European Food Safety Authority) as safe. Taking into consideration the vital importance of the GMO crops in the feed sector, this is seen as a major reason for concern in the industry.

Livestock in IT	Livestock production (000)	Industrial compound feed production (kT)
Pigs	8,478	3,598
Dairy Cows	6,315	2,365
Buffalos		120
Cattle		751
Sheep	7,285	265
Broilers	631,500	2,920
Lying hens		1,929
Turkeys		980
Other	1,563	1,298
Total		**14,226**

Source: Assalzoo (2018)

2.5 Food sector

- The food sector is one of the most important Italian industries, employing around 385,000 people and generating a total turnover of more than USD 150 B in 2016, with both domestic and export sales being robust. There has been a modest increase in turnover since the fourth quarter of 2016 after years of rather stagnant domestic consumption. Many Italian food businesses (especially in the pasta and bakery segments) benefit from the strong international reputation of the “Made in Italy” trademark.

- Italian food sector production, processing and retail remain heavily fragmented, with a very competitive business environment. Even the biggest Italian food retail businesses are small compared to other major international players. The average size of food producers is typically small, which often hampers international expansion.

- Soy in the food sector is used increasingly. Due to the ban on GM in the food sector, the vast majority of soybeans used come from domestic production or non-GM imports from other EU countries or Serbia. It is estimated by the experts that around 100,000 T from domestic production end up in the food sector in the country.

- To provide some data on the trend - **in 2015 the consumption of soya food increased by 62% and soya drinks by 27% comparing to 2014**. Between 2015 and 2017, soya drinks increased by further 16% and reached sales of almost USD 226 M.

2.6 Production

- **Italy is the biggest soy producer in Europe** and according to the information from the market, is responsible for **47% of the total European production** which has been estimated at 2.3 MT in 2016. The total production in Italy in 2016 was estimated at 1.1 MT and the domestic production is three times bigger than the second EU producer – France.

- The majority of the production is located in the North of the country, and two regions are leaders in soybeans cultivation – Veneto with 134,000 ha and Friuli Venezia Giulia with 54,000 ha. The total surface of cultivated area in the country amounted to 288,000 ha in 2016.

Soybean area and production (2017)	Area [hectares]	Total production [quintals]	Harvested production [quintals]
North	321,046	10,598,032	10,162,667
Center	1,258	32,406	31,772
South	113	3,370	3,370
TOTAL	**322,417**	**10,633,808**	**10,197,809**

Source: ISTAT 2018

- The soy cultivation area in Veneto region has doubled since 2012, and based on the information from the market, it is expected that the soy production in Italy will continue to grow in the future. Accordingly in 2017, the total cultivated area increased by additional 34,000 ha.

- Italy has signed the European Soya declaration which aims to increase the EU soya production, and this will have positive impact on the further production growth in the country. Accordingly, it is expected that in 2018/19 there will be further growth in soya production which is estimated at 5%.

Production of meal [MMT]	2010	2011	2012	2013	2014	2015
National meal production	1.3	1.1	1.2	1.2	1.2	1.1
Production from imported soybean (subcategory of national meal production)	1.0	0.8	0.7	0.8	0.8	0.6
Production from national soybean (subcategory of national meal production)	0.4	0.4	0.4	0.4	0.5	0.5
Imported meal	2.1	2.3	2.0	1.8	2.0	2.2
Exported meal	0.2	0.2	0.1	0.1	0.2	0.1
Total availability of meal	3.3	3.3	3.0	2.9	3.1	3.2

Source:ASSALZOO (National Association of Meal Producers); based on data from ISTAT and ASSITOL (Association of Crushers)

- The production growth in Italy is expected to come not only from increase in the cultivation area but through innovation, research, and increased productivity. For example, Sipcam Italia invested EUR 5 M into genetic research aiming at Italian soy production in the Po valley, with a goal for the region to become area of excellence in soybean production. This includes efforts to obtain high quality soybean varieties as well as the development and dissemination of **new technologies** capable of optimizing the agronomic choices in soybean cultivation.

- Other methods mentioned for increase of the production are precision farming and strip-till techniques in agriculture.

2.7 Prices & quality specifications

- In the Italian market, Bologna **functions as the benchmark for soybean prices**. The Bologna Merchandise exchange (AGER) serves as a point of reference for anyone operating in the sector and the processing industry of cereals, oilseeds and raw materials for animal feed.

Medium prices of soybean [€/ton, IVA TAX excluded]	Soybean seed- OGM (foreign production)	Soybean seed- Biological agriculture (for food sector) national	Soybean seed- Biological agriculture (for feed sector)- national	Soybean seed- Biological agriculture (humidity 13%: min feed sector and max food sector) national	Soybean seed- national production	Soybean seed- foreign production	Soybean seed- Biological agriculture (national production)
2007	no data	no data	no data	no data	302	300	449
2008	no data	no data	no data	no data	396	409	467
2009	no data	no data	no data	no data	338	340	400
2010	no data	no data	no data	no data	346	352	472
2011	no data	no data	no data	no data	381	393	489
2012	no data	no data	no data	no data	455	473	751
2013	no data	no data	no data	no data	473	463	655
2014	no data	no data	no data	no data	404	411	651
2015	no data	662	642	no data	363	368	643
2016	387	634	611	no data	no data	no data	no data
2017	383	650	630	638	no data	no data	no data
2018*	375	655	635	645	no data	no data	no data

Note: "no data" means that category name has changed over time (regulatory changes); *March 2018

Source: http://www.agerborsamerci.it/

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Medium prices of soybean [€/ton, IVA TAX excluded]	Wholegrain toasted soybean meal- national (44% protein content)	Wholegrain toasted soybean meal- foreign (44% protein content)	Wholegrain toasted soybean meal-national (no GMO)	Wholegrain toasted soybean meal- foreign (no GMO)	De-hulled, toasted soybean meal- national	De-hulled, toasted soybean meal- foreign	De-hulled, toasted soybean meal- national (no GMO)	De-hulled, toasted soybean meal- foreign (no GMO)	Wholegrain toasted soybean meal- national (44% protein content)
2007	268	264	290	288	278	274	304	301	268
2008	339	336	358	356	347	344	378	375	339
2009	342	340	364	362	350	347	384	381	342
2010	334	332	352	350	343	340	384	381	334
2011	323	321	346	344	334	331	382	379	323
2012	445	443	457	455	456	453	503	500	445
2013	460	458	503	501	473	470	561	558	460
2014	430	428	476	474	444	441	551	548	430
2015	371	369	405	403	383	380	476	473	371
2016	355	353	383	339	364	362	452	461	355
2017	333	330	420	no data	341	338	479	no data	333
2018	396	395	449	no data	403	402	508	no data	396

Note: "no data" means that category name has changed over time (regulatory changes); *March 2018

Source: http://www.agerborsamerci.it/

- The table above shows the historic prices for soy beans and other products and their evolution from 2012.

- **AGER is also responsible for establishing the quality specifications in the country**. The organization, together with Granaria Milano set minimum parameters of oil content (around 18% for national seeds, while for example Brazilian soybean has a higher level normally around 20-21%) and water retention (around 13%).

- Oil level, protein level and water retention are so called commercial parameters included in contracts. In case of other parameters, such as sanitary requirements (maximum level of undesirable substances) are regulated by EU legislation, hence there is no need to include them in the commercial contracts.

- **The commercial parameters are not mandatory,** they are suggested by these two institutions to facilitate commercial exchange, though each contract may be different, and it depends on the parts what quality standards they apply.

Non-GM soybeans and certification

- According to European Natural Soy and Plant Based Foods Manufacturers Association (ENSA) in the EU, rules are put in place on the labeling of foodstuffs to enable European consumers to get comprehensive information on the contents and the composition of food products. **GMOs in Italy are regulated at the international, European Union**, **national, and local levels.**

- Italy is very strict when it comes to the GMO, and the position is becoming even more firm, as the country started to actively vote even against GMO imports in the EU (March and May 2017 latest examples).

- The EU legislation requires that GM seed varieties have to be approved and authorised in the EU for cultivation under Directive 2001/18/EC of the European Parliament and of the Council (OJ L-106 17/04/2001) (CELEX 32001L0018) on deliberate release in to the environment of genetically modified organisms before they are marketed in the EU.

- **In 2013, Italy was one of the EU countries that banned the production Monsanto's MON810 maize,** and as of now GMO cultivation in Italy is taking place at an experimental level only.

- Authorisation is only granted, after a positive scientific assessment has concluded that no unacceptable risks to the environment or human health is likely to appear. All GM seeds variety have to be labelled as such.

- In a major breakthrough against the rigid legislation in Italy and something that could be a potential game-changer in the future, The European Court of Justice ruled in 2017 that EU member states do not have the right to prohibit the use of genetically modified seeds unless there was evidence that they pose serious risks. More precisely, the ruling was on a case from Italy where a farmer planted genetically altered crops. He was not only fined by the government but also saw his crops destroyed by anti-GM activists.

- The demand for non-GM soybean is relatively high in the European Union, compared with other parts of the world. A legislative framework regulates the import and food/feed **use of GM crops in the EU, requiring the mandatory labelling of food/feed ingredients that contains more than 0.9% of GM material.** Therefore, the introduction of GM soybean in the supply chain has generated a system of segregation and identity preservation that is intended to make sure that the "non-GM" identity of soybean is preserved through the whole supply chain for those food/feed processors and final consumers that are demanding this characteristic.

- According to FEDIOL (EU Vegetable Oil And Protein meal Industry Association) and FEFAC, the EU feed industry has proactively responded to the EU political request to ensure consumer choice by importing non-GM soybeans and soybean meal and supplying them as a niche product to specific domestic market segments at high premiums over GM soybeans. **Total EU imports of non-GM soybeans and soybean meal for feed were at around 2-3 MT**, **yet the aggregated EU demand for livestock products from farm animals fed with non-GM feed has not increased**. Overall demand for certified non-GM soybean has largely remained at 3-4 MT or about 10% of the total EU demand for soybean meal.

- According to Science and Policy Report by the Joint Research Centre, **retailers are defining the future of the non-GM soybean markets**, since their decision on to the type of products offered to consumers at the end will impact all the operators within the supply chain. Retailers usually decide which type of animal products will be offered and what will be the production standards for the non-GM feed. It is worth mentioning that retailers' decisions in this area are influenced not only by economic gain considerations but also by the opinion of other organizations, such as consumers' or environmental ones. Yet taking into consideration that the EU is highly dependent on the situation in Brazil, the evolution of this market will depend on its ability to secure the supply of non-GM IP soybean from Brazil at affordable prices and the search for alternative suppliers. Otherwise interest in non-GM soy may be withdrawn (if the availability of non-GM soybean for the EU market becomes difficult). In general view, production, collection, transportation, storage and processing of GM soybeans, adventitious mixing is difficult to prevent, and cleaning of the respective capacities between charges is complex and time consuming, and therefore costly. Additionally, contracting with the farmer and exporting soybeans and soybean meal to Europe are at least four or five months apart, during which price conditions can change (due to changes in demand). More crucially, farmers need to know the price premium they will be offered for growing non-GM soybeans prior to sowing and this needs to be sufficiently high to encourage them to switch away from planting the otherwise more profitable GM soybeans. This also means a **risk premium has to be paid to the supplier in addition to the higher price offered to farmers**. From a trader/crusher perspective, it has to be kept in mind that the price of non-GM cannot be guaranteed also because weather conditions as well as seasonality of supplies have an effect on yields, leading to better or worse results than average. Given the modest size of the overall non-GM soybean market, this could lead to significant price swings. **The premium paid by EU importers of non-GM IP soybean meal is not necessarily linked to soybean meal market prices and is highly volatile** - the average has been in range of USD 100 – 240 (2014/2015). The rapid increase of GM crops production at global level will make the industrial management of non-GM IP compound feed even more complex and costly. In recent years, testing has been adding an extra USD 300 to USD 1,500 (the former for a simple test and the latter for a specific GM test). Altogether, the need for dedicated silos, rinsing, cleaning, analysis and administrative costs for compound feed producers add another USD 35/t to the above-mentioned trade-related non-GM premium. The increased GM share of total production in recent years, especially in Brazil, suggests that current and recent non-GM price premia have been insufficient to maintain supplies of non-GM soybeans and would have to rise if additional supplies are to be secured.

- While the government and the agriculture sector take a pragmatic approach toward the import and use of GM products, public opinion is divided as to whether GM foods pose health risks, and the complex regulatory environment and effective pressure from environmental groups have worked to hamper the commercial manufacture of genetically modified organisms. Awareness of GM foods is relatively high in Italy, and slowly there is a change in the public opinion towards use of GM foods.

- The public is aware that the country imports and uses GM crops as animal feed, and the opinion is divided as everywhere to whether GM foods are good for people. **According to a survey that was done after the ban of the Monsanto maize in 2013, nearly 80% of Italians were in support of the ban.** Since 2013, the stance of the public seems to soften, but the topic is still a polarizing one.

3 MARKET STAKEHOLDERS

- The **value chain** in the soy market in Italy is complex and differs depending on the fact whether the product is domestically produced or imported. It also varies significantly on the vertical integration of the importer, and last but not least, there are differences depending on the product (soybeans, meal or oil).

- In case of **national production,** the supply chain is not overly complicated. There are wholesalers which operate locally collaborating with agriculture sector on one hand and crushing/food industry on the other hand and serve as middlemen. There are two main grain trade associations: Associazione Granaria di Milano and AGER di Bologna that organize weekly exchange meetings, managing quotations, and set the conditions for the trading by elaborating model-contracts between parties, which are not mandatory. The meetings occur weekly, in Milan each Tuesday and in Bologna each Thursday.

- When it comes to imported products, there should be a distinction between the type of product., There are two typical ways of soybeans entering the market, and this mainly depends on the vertical integration of the importer.
    - The first one is when the importer has no crushing capacity (Cofco for example) --> crushers (directly or via intermediaries/brokers)/food sector if it is not GMO/feed sector--> from crushers to feed/industrial sector (end clients)
    - in case of Bunge/Cereal Docks, which are importers and crushers in one (they import by themselves for themselves): Own import--> own warehousing in the port (Ravenna)--> own processing--> end clients (feed/industrial/food sector)

- In the case of imported meal, the value chain looks fairly simple and importers deal directly with the feed sector via intermediaries/brokers--> end clients

- Soybean oil for industrial use like biodiesel is not imported in large quantities from outside of the EU as the cost of soybean oil for energy and biodiesel is rather high compared to sunflower, rapeseed or palm oil which is preferred. If the imported product is refined oil, then the importer sells it to food/feed industry via intermediaries/brokers--> end clients. On the occasions when the imported product is raw oil, the value chain has one more stakeholder. Importer--> refining companies (ASSITOL member) --> food/feed industry

- The typical process of purchasing soybeans is done via traders who engage other entities within supply chain (distribution, storage, processors). These companies may be present in each level of supply chain, and their role differs from transaction to transaction.

- The soybeans are sold to large international traders which in turn sell the soybeans to the crushing plants. Large part of this stage, including collecting and transport of the harvest to the processing companies, is dominated by only a few international corporations such as **Bunge, Cofco, Cargill, Dreyfus and ADM**. They also regulate the transport from Latin America to the European manufacturers. Besides offering loans, these traders provide the farmers with agricultural inputs like fertilizers and seeds in return for soybeans. **The shipped soybeans into Italy are processed by some of them,** while others sell them without processing.

- When it comes to traders, it is difficult to estimate their market share and the level of involvement, as in many cases the biggest importers handle everything on their own. There is significant vertical integration on the market (Cargill owning a feed production business):
    - **G Trade System** is a Swiss company that is active on the Italian market and a member of ANACER. They also work in other EU countries as well as in North Africa. They offer typical brokerage services, and most of their products originate from the Black Sea region, Canada, USA, and Australia.
    - **Grain Services Srl** is a leading Italian company in the commercial intermediation of cereals and derived products nationally and internationally. The company supports 750 customers operating in over 50 countries worldwide. Grain Services has been on the market for over 60 years dealing with supply plans for the major food industries in central and northern Italy and is positioned at the top of the European market as a market share for the quality and completeness of the consultancy services offered.
    - **Ital Bras**, based in Milano is another typical broker that focuses on agricultural products. They work internationally and mostly import products in Italy, Spain, Belgium, Germany, India, Bangladesh, and Turkey.

- Entities engaged, in the storage of grain, soybeans, rapeseed and other bulk agricultural products include:
    - **Terminal Rinfuse Italia** handles agribulk for import and export and operates three more dry bulk terminals in France, Germany and Spain. The one in Venezia has 4 main berths and is well connected via rail, road and inland waterways. In the total open-air storage space amounts to 149,100 m^2, while the terminal offers 42,000 m^2 covered warehouse space. The silo on-site can accommodate 100,000 tons of agribulk products, totalling USD 45 M revenues in 2016.
    - **Multi Service Srl** is the second handling company located in the port of Venice, thus enjoys the same connecting infrastructure. They are able to handle all types of goods in particular iron and steel packaged products and bulk products - cereals, grains, fertilisers, sand etc. Their revenues total USD 19 M in 2016.
    - **Docks Cereali** is based in Ravenna port and operates the biggest terminal for storage and handling of bulk dry goods of the Mediterranean area. It was mentioned by all of the interviewees as a key player in storage of soybeans. The terminal covers an area of 215,000 m^2. The quay is 650 m long with a draft of 9.45 m. It has two gantry cranes fitted with grabs with a capacity of 750 T/h each, 3 pneumatic towers for cereals and flour with a capacity of 300 t/h each, 1 mechanical tower with capacity of 900 T/h and 3 mobile towers with a capacity of 500 t/h each. The terminal has about 400,000 tonnes of storage capacity for cereals handled at a rate of 600 t/h during discharging and 300 T/h during loading. The storage facilities include 118 silos, 71 warehouses and large areas for open storage. A fleet of 13 tyred shovels is used for the handling. Docks Cereali has facilities for grinding, mixing and bagging raw materials in bags and big-bags, it is also equipped with a flour sterilisation system, two crushing machines for slice goods or pellets and a plant for fertilizers bagging and packing.
      Additionally, Docks Cereali is the main crusher in Italy, crushing 2 KT/day of non-GMO beans, from local production and 3 KT/day from the U.S. and other origins. The company is active in crushing oilseeds, marketing oils and vegetable meals as well as in originating/marketing grains in Italy and Europe. The company also has strong connections with overseas suppliers in all North and South America. Docks Cereali is supporting Italian farmers on non-GM crops of soybeans and corn in the northern part of Italy

where the company has its roots and assets. Cereal Docks is also leader in sustainability and traceability programs for the crops production in Italy, with a total of EUR 16 M revenues in 2016.

- **Eurodocks** is a major multipurpose dry bulk terminal operator in the port of Ravenna It is capable of handling 2 MT per year and covers an area of over 170,000 m^2. The company has a 545-meter long quay equipped with 1 bridge crane and 5 self-moving cranes with a capacity of up to 60 tons. The company has particular experience in the handling of grains/seeds/flours and aggregates as it runs a wide and comprehensive logistics platform equipped with modern and efficient clod machines. Their revenues totalled USD 14M in 2016.

- Two feed producers were mentioned in the interviews as key players in the Italian industry:
  - **Veronesi** is the largest feed producer in Italy, producing more than 3 MT of feed annually. The company has around 25% of the domestic market. Veronesi feed is sold through retail distribution chains and supplies farmers in the parent company's other holdings which include poultry and pork producer Agricola Italiana Alimentare (AIA) and pork producer Negroni. In addition to strong domestic sales, Veronesi has grown its European export business which reached nearly USD 22 M in 2016.
  - **Amadori** is the second largest company in feed and meat production in Italy. The plant produces 50,000 tons of feed and 10,000 tons of full fat soy monthly. All feed production is used for their own consumption in poultry and livestock, as the company is fully integrated.
  - **Ital Green Oil** is one of the major crushers and oil producers in Italy. The plant in San Pietro di Morubio (VR) is specialized in oil seed processing. Extracting plant processes around 1,000 T/day of soybean and 25 T/day of soybean and sunflower oil. The plant produces also soybean meal and lecithin. All the products are GMO free. The warehouse has 80,000 tons capacity of oilseeds and 6,000 tons of oil.

- All of the experts interviewed for the purpose of the report stated that a new potential supplier that wants to enter the Italian market should approach importers, as they are the most important stakeholders in the value chain. The main importers are associated in the ANACER association. Another way to meet potential partners is to become a member of ASSITOL association (crushers). ASSITOL represents 95% of crushing companies present on the Italian market. Investors may also contact the Trade associations of Milano and Bologna. However, the most common way for extra-EU countries to enter the market is to participate in European assemblies of FEDIOL and FEFAC.

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4 SHIPPING AND CONTRACTUAL TERMS

4.1 Standard shipping requirements in Italy

- In general, there are no major limitations in regard to shipping requirements, and three major ports of entry are currently being used for import of soybeans.

- **The port of Ravenna** is the only port in Emilia Romagna and the leading port for handling of cereals, flour and fertilizers; it is also an important commercial stopover for various goods and containers. Its strategic geographical position allows for the Port of Ravenna to be a leader in Italy for trade with the Eastern Mediterranean and the Black Sea markets and thus plays an important role for trade with the Middle and Far East.

- **The port of Venice** acts as the main entry point to a vast area of Central Europe - including amongst others North-Eastern Italy, Austria and Bavaria - in addition to Eastern Europe. The Port of Venice is also located at the intersection of three main European corridors: Scandinavian – Mediterranean Corridor, Mediterranean Sea Corridor and Adriatic – Baltic Corridor. It is one of the major European ports for project and general cargo and one of the main ports in the Adriatic for the number of containers handled. Being a leader in many traffic segments, it is the only port in Italy to benefit from a river port providing freight transport by barge along the river Po.

- The port of **Genoa (Genoa, Savona and Vado)** ranks as the premier Italian gateway port. The leading manufacturing and consumer centres of Europe sit within a 600-km range of the port, over 30 specialised terminals handle annually over 60 MT of all types of cargo and are equipped to accommodate the latest generation of mega ships due to the natural deep water. When it comes to cereals, they are handled mostly in Savona.

- The interviews revealed that the vast majority of soybeans is imported in bulk totes, thus the maximum weights are not relevant. Rarely there is usage of containers.

- **Incoterms.** The preferred model is FOB and according to one of the experts interviewed it is used in 90% of the imports, while CIF only in 10%. This also varies between the sources as Canadian companies prefer CIF (Richardson), while all of the others usually use FOB. Another company that stated that CIF is prevalent for their imports was Cereal Docks.

- International importers use NAFTA, GAFTA and FOSFA contract models. For oils in particular the clauses of European Federation FEDIOL are often used. Once a commodity arrives in Italy, the intermediary can decide if still applying international contracts or national contracts by Milan or Bologna Associations.

4.2 Control measures and import requirements

- Seed trade is subject to quality and variety control in accordance to EU regulation. National **phytosanitary import requirements** are based on the plant health regime of the EU. Importers may be inspected by the Plant Protection Service, usually at the place of delivery. A phytosanitary certificate issued by the authorization body in the country of origin declares that the crop seeds are healthy and free of diseases. In some cases, additional declaration may be required, depending on the origin and product.

- EU legislation harmonises and simplifies pesticide MRLs (Maximum Residue Limits) and sets a common EU assessment scheme for all agricultural products for food or animal feed. In general, MRLs apply to 315 fresh products and to the same products after processing, adjusted to take account of dilution or concentration during the process. Legislation covers pesticides currently or formerly used in agriculture in or outside the EU (around 1,100). A general default MRL of 0.01 mg/kg applies where a pesticide is not specifically mentioned. **For soybeans the pesticide residues and maximum residue levels is 20 mg/kg (glyphosate).** All pesticide residues can be checked on: http://ec.europa.eu/food/plant/pesticides/eu-pesticides-database/public/?event=pesticide.residue.selection&language=EN

- On November 2017, EU member states agreed on a five-year renewal period for the herbicide glyphosate, used by Monsanto in its Roundup product. After several indecisive votes, a technical committee of the European Commission approved a 5-year license renewal. The license was scheduled to expire on 15 December. The chemical's commission license expired in June 2016. But the commission's Standing Committee on Plants, Animals, Food and Feed (PAFF) made up of representatives from the commission's 28-member nations, couldn't agree on the length of a renewed license. PAFF initially proposed a 15-year renewal, then a 9-year renewal, and eventually settled on an 18-month extension.

- The consumer risk assessment is first carried out by the competent authorities for the application of MRLs in member states in the form of an Evaluation Report and then, upon request of the Commission, finalised by the European Food Safety Authority (EFSA) in the form of a Reasoned Opinion. The Commission, who is in charge of the risk management phase, prepares a draft proposal for a Regulation to implement the MRLs in the Annexes to Regulation (EC) No 396/2005. The proposal is based on the Reasoned Opinion of EFSA and is discussed and voted at the Standing Committee on Plants, Animals, Food and Feed (PAFF) with experts from the 28 member states of the Union.

- According to MRL setting procedure, in case of decisions on applications concerning MRLs, the Commission shall prepare either a regulation on the setting, modification or deletion of an MRL or reject the application without delay and at the latest within three months from the publication of the reasoned opinion:
    - Increase of the existing MRL - the application will be addressed by a routine MRL proposal which will become applicable 20 days after publication. Such proposals are trade facilitating measures and are therefore not bound to be notified to WTO via the SPS procedure. However, for the sake of transparency, those proposals may be grouped in batches and notified to WTO for information only.
    - Decrease of the existing MRL - any decrease of MRLs might lead to a trade barrier. The proposal must therefore be notified to WTO for a commenting period of 60 days. The application date of the regulation is deferred for 6 months to permit member states, third countries and food business operators to prepare themselves to meet the new requirements which will result from the modification of the MRLs. Moreover, the regulation provides for a transitional arrangement for products which have been produced before the modification of the MRLs and for which information shows that a high level of consumer protection is maintained. In view of the different procedures, in most cases the Commission deals with such applications in a separate proposal. This is also to avoid that applications, which lead to an increase of the MRL, are delayed by the process.
    - Import tolerances - specific issues regarding the setting of MRLs following import tolerance requests in accordance with Article 6(2) and (4) of Regulation (EC) No 396/2005 (In principle, all parties mentioned in Article 6(2) of Regulation (EC) No 396/2005 can apply for an import tolerance. Due to the data requirements, especially in cases where the active substance has never been notified or authorised in the EU, it is advisable that the producer of the active substance applies for the import tolerance).

- Farmers, traders and importers are responsible for food safety which includes compliance with MRLs. Member state authorities are responsible for control and enforcement of the MRLs. To ensure that this is done in an adequate and uniform way, the Commission has three instruments:
    - The co-ordinated EU multi-annual control programme sets out for each member state the main pesticide-crop combinations to monitor and the minimum numbers of samples to take. Member states have to report the results which are published in an annual report.
    - Community Reference Laboratories co-ordinate, train staff, develop methods of analysis and organise tests to evaluate the skills of the different national control laboratories.
    - The Food and Veterinary Office of the Commission carries out inspections in the Member States to assess and audit their control activities.

- According to EU-28 Agricultural Biotechnology Annual 2017 report published by U.S. Department of Agriculture, the EU plant breeding sector is focusing their efforts on Innovative Biotechnologies whose regulatory status is still to be defined. Public and private initiatives in EU member states differentiate themselves by using voluntary genetically engineered (GE)-free labels. This increases the bloc's demand for non-GE soybean meal and discourage GE corn cultivation in the EU which since 2017 is limited to two Member States. While conventional GE research is still being conducted, programs are often limited to basic research inside laboratories and, in the past few years, **several major private developers have moved their research operations to North America**. The private sector's interest in developing varieties of GE plants suitable for cultivation in the EU has waned given the unattractive and uncertain investment environment. Open-field testing is permitted in eleven member states, although in 2017 only six member states carried out open field trials on a variety of biotech crops. EU research is not likely to lead to the commercialization of new GE plants in the short term. **Most of the EU member states' plant breeding sectors are now focusing on Innovative Biotechnologies** (IBs), whose regulatory status is in a grey area and its legal analysis has been put on hold until the European Court of Justice (ECJ) rules on the four questions raised by the French Supreme Court. Politically, the debate is still at an early stage. A few member states are active on this subject but in most countries the debate has not yet emerged. In most EU countries the general public is not aware of agricultural applications of IBs.

- Commercial cultivation of GE crops in the EU is limited to just over 130,000 hectares of MON810 corn in Spain and Portugal. Regulatory constraints that prevent this area from further growth include a cultivation ban in eighteen member states, strict coexistence rules, and a mandatory field register. As per agronomic reasons, the single GE crop authorized for cultivation does not fulfil the needs of the majority of the EU farmers. Additionally, the threat of protests or destruction by activists, the increased interest in non-GE products, retail requirements, and public/private initiatives, such as the **EU Soy Declaration** (signed i.a. by the Netherlands), discourage the cultivation and marketing of GE crops in the EU. The regulatory procedures for approving biotech plants in the EU takes significantly longer than in supplier countries. This has led to situations where some GE plants are produced outside the EU but cannot be commercialized in the EU. As a consequence of the zero-tolerance policy on the adventitious presence of unapproved GE crops, shipments can be stopped at the EU border if they contain traces of products that have not yet been approved in the EU. This represents a challenge for commodity trading companies as it limits their sourcing options and increases their risk. European feed manufacturers have repeatedly criticized the EU policy, as it has resulted in price increases for feed and a loss of competitiveness for the EU livestock and poultry sectors. The EU does not export any GE products but it is a major importer of soybeans - the share of GE products in total imports is estimated at around 85% for soybeans**. Demand for GE-free soybean meal in the EU-28 is estimated at 20% of consumption and is anticipated to continue to grow.** While not binding, the European Soy Declaration, signed by twelve EU MS, aims to boost soy production in the EU and support the further development of markets for sustainably cultivated non-GMO soybeans and soybean products.

- Acceptance of GE crops in the EU varies greatly among countries. Member states can be divided into three categories. Eight member states including Denmark, The Netherlands, Finland, Estonia, Romania, Spain, Portugal, Czech Republic, England (within the United Kingdom), and Northern Belgium produce GE crops or would do so, if more were approved for cultivation in the

EU. Governments and industries in these countries mostly favor biotechnology. In seven member states including France, Germany, Ireland, Sweden, Lithuania, Poland, and Bulgaria as well as in Southern Belgium, Northern Ireland, Scotland, and Wales forces willing to adopt the technology (mainly scientists and professionals of the agricultural sector) are counterbalanced and usually outmatched by forces rejecting it (retailers, consumers and governments, with activists holding significant sway over the public discourse). In the ten other member states (Austria, Slovenia, Slovakia, Italy, Greece, Croatia, Latvia, Hungary, Cyprus, and Malta) most stakeholders (politicians, governmental decision makers, farmer organizations, and consumers) reject the technology.

- As for animal biotechnology, the EU is particularly active in basic medical and pharmaceutical research. Some member states are also active in research for agricultural purposes, focusing their efforts in improving livestock breeding. No GE animal is commercialized in the EU, and market acceptance is low due to ethical and animal welfare concerns. No foods are produced from animal clones in the EU. Commercial cloning in the EU is limited to elite horses. In the absence of progress with the discussions on the legislative proposals on animal cloning released by the European Commission in December 2013, such foods would be covered by Regulation (EU) 2015/2283 until specific regulations on animal cloning are passed.

- EU regulations (EC) No 1829/2003 and (EC) No 1830/2003 require food and feed produced from or containing GE ingredients to be labeled as such. These regulations apply to products originating in the EU and imported from third countries. Bulk shipments and raw materials must be labeled as well as packaged food and feed. In practice, consumers rarely find GE labels on food because many producers have changed the composition of their products to avoid losses in sales. Indeed, although products undergo a safety assessment and labels are simply there to inform consumers, they are often interpreted as warnings, and producers expect labeled products to fail in the market.

- The products **exempt from labeling obligations** are:
    - Animal products originating from animals fed with GE feed (meat, dairy products, eggs);
    - Products that contain traces of authorized GE ingredients in a proportion no higher than 0.9%, provided that this presence is adventitious or technically unavoidable;
    - Products that are not legally defined as ingredients according to Article 6.4 of Directive 2000/13/EC, such as processing aids (like food enzymes produced from GE microorganisms).

- Labeling regulations for food and feed products are presented in Regulation (EC) No 1829/2003. Where the food consists of more than one ingredient, the words “genetically modified” or “produced from genetically modified [name of ingredient]” must follow in brackets immediately after the ingredient concerned. A compound ingredient with a GE component should be labeled “contains [name of ingredient] produced from genetically modified [name of organism].” For example, a biscuit containing soy oil derived from GE-soy must be labeled “contains soy oil from genetically modified soy.”

- The traceability rules defined in Regulation 1829/2003 require all business operators involved to transmit and retain information on GE products (ingredients/identifiers), in order to identify both the supplier and the buyer of the product. For a period of five years after every transaction within the supply chain, all operators must keep a record of this information and be able to

identify the operator from whom they bought the products and the one to whom they supplied them.

- There is no EU-harmonized legislation on GE-free labeling. GE-free labels are allowed on a voluntary basis, provided they do not mislead the consumer. Such labels are mainly found on animal products (meat, dairy products, and eggs), canned sweet corn, and soybean products. The Netherlands have guidelines in place to facilitate GE-free labeling (Italy has a number of private-operator led schemes.)

- Code of Practice developed jointly by Copa-Cogeca and FEFAC in accordance with article 25 of Regulation (EC) No 767/2009 was endorsed by the EU Commission in accordance with article 26 of the same regulation, i.e. after consultation of stakeholders and national control authorities. It provides producers of compound feed with practical recommendations on how to label compound feed in accordance with the provisions laid down in Regulation (EC) No 767/2009 on the placing on the market and use of feed. It also enables farmers to better understand labeling particulars and better assess the nutrition value of a compound feed, thus contributing to informed choice. It includes in particular a section on claims (permitted claims, justification of claims).

4.3 Other standard contractual terms and regulations

- The European Court of Justice interpreted the relevant EU legislation in regard to labeling of soya-related products - the ECJ ruled that the term ‘milk’ is reserved only for milk of animal origin and that the legislation reserves designations like ‘cream’, ‘Chantilly’, ‘butter’, ‘cheese’, and ‘yoghurt’ solely for milk products (derived from milk). It was confirmed that the dairy terms cannot be used to designate a purely plant-based product unless that product is mentioned on the list of exceptions which is not the case for soya or tofu.

- Since January 2018, the new EU Novel Foods Regulation has come into force. This regulation sets rules for new foods and new food ingredients, the so-called novel foods. The new regulation takes into account a high level of protection of human health, environment’s and consumers' interests, and the effective functioning of the internal market i.e. the free movement of safe and wholesome food. Both the old EC Novel Foods Regulation No. 258/97 and EC Novel Food Labeling Regulation No. 1852/2001 have been repealed as from this date. New categories for novel foods have been introduced, like ‘food consisting of engineered nanomaterials’. Food intended to be used for technological purposes and genetically modified food which is already covered by other Union acts do, however, still not fall within the scope of this regulation.

- On 30 October, the EU and Canada formally signed the bilateral Comprehensive Economic and Trade Agreement (CETA), which opens the way for the accord’s provisional application and for formal ratifications by national parliaments. For oilseeds, a key element of CETA is the elimination (immediately upon implementation) of tariffs on Canadian rapeseed oil entering the EU – a measure that, according to the Canola Council of Canada, will allow Canadian exporters to raise their sales to the EU by up to USD 90 million per year. Provisional implementation of the trade pact is expected for next year. CETA has entered into force provisionally on 21 September 2017. Concerning oilseeds, the agreement's implementation entails elimination, from day one,

of the EU's tariffs on Canadian rapeseed oil imports. CETA's full and definitive application remains contingent upon ratification by all EU Member State parliaments.

- The European Commission authorized five new GM oilseed varieties for food/feed use, comprising three soybean and two rapeseed varieties. The authorization, which exclude cultivation, will be valid for 10 years. All products derived from GMOs will be subject to the bloc's labelling and traceability rules.

- On 22 July 2016, the EU Commission authorized three new GM-soybean varieties whose approval was keenly awaited by the international trade. The varieties have been authorized for import and processing for food and feed use but not for cultivation. The varieties concerned are Monsanto's 89788x87708 (known as 'Roundup-Ready-2-Xtend') and 89788x87705 ('Vistive Gold'), and Bayer's FG72 ('Balance GT'). The authorizations are valid for 10 years. Any products produced from these GMOs will be subject to the EU's labelling and traceability rules. The EU's approval clears the way for the varieties' worldwide cultivation and will allow grain traders and processors in North America to lift recently introduced marketing restrictions for the varieties in question.

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