AUGA group AB (AUG1L LH)

Annual Review

23rd Dec 2021

Table of Contents

AUGA: Investment Summary

AUGA group AB (AUG1L LH; hereafter referred to as "AUGA" or the "Group"), based in Lithuania, is one of the largest organic food companies in Europe, managing over 39,000 ha of arable land. The Group operates a unique vertically integrated business model, enabling it to control the full value chain, providing full guarantees to customers that its products may be traced.

The Group's product range includes commodities such as wheat, pulses, sugar beets, milk, and packaged consumer goods: ready-to-eat soups, oatmeal's, preserved vegetables and mushrooms, eggs, bottled milk and other products. With the exception of some mushrooms, all AUGA-branded products are presently certified as organic. The Group follows all requirements attributable to organic farming, like eliminating all synthetic pesticides and fertilisers use which is restricted, an absolute prohibition on the use of genetically modified organisms and adopting wide crop rotation practices.

After reviewing AUGA's 9M 2021 results, we have updated our view on the Group. However, this update comes at a time of extreme uncertainty caused by the COVID-19 pandemic that has ripped through the global economy in conjunction with record-breaking hot temperatures, which have left its impact on this year's results. Regarding the pandemic, although the world has adapted to the new normal, the risk still stands and may impact every sector at any time. The unprecedented temperatures are observed every year around different parts of the world, which is believed to be the result of climate change. Although the fight against climate change has been present for many decades, now when the unprecedented weather conditions are leaving a noticeable impact on our lives, regulators around the world have set ambitious targets and initiatives in order to promote the change in our daily lives and business operations that leave a minimal footprint on the environment and even helps to restore it. Furthermore, also society itself has been increasingly raising much attention to environmental awareness and linking it also to the products they use. The Group's operations and strategy match with the practices that regulators and society, in general, want to promote; thus, we believe that this will be reflected in the future results of the Group.

The Group is poised to benefit from the need for longer shelf life and high nutritional valued foods. AUGA has a product mix that is suitable to meet both of these requirements. Society is becoming more aware of the immunity and benefits that organic food brings, thus around the world increase in demand for organic food has been observed. Furthermore, scientists and regulators recently have put emphasis on extensive support for organic food producers and companies that are helping to address the alarming environmental degradation.

AUGA has a robust ESG policy, and it can be said that it is a leading company in the Baltics when it comes to having a clear and demonstrated ESG strategy. This is considered to be a strong qualitative characteristic of the Group and positions it as an interesting investment alternative, especially for those that emphasise sustainable investments and good ESG practices.

Besides having a strong environmental policy and ambitions to achieve seven of the United Nations Sustainable Development Goals, the Group adopts closed-loop organic

Key Numbers (EURm)	2019	2020	2021E*	2022E*	2023E*	2024E*
Sales (EURm)	71.1	83.1	71.0	88.3	96.0	103.8
Sales growth (%)	29.9	16.8	(14.5)	24.3	8.7	8.1
Net profit (EURm)	(3.2)	0.9	(12.4)	1.2	9.5	10.2
EPS (EUR)	(0.01)	(0.01)	(0.08)	0.01	0.04	0.04
P/E (x)	n.m.	n.m.	n.m.	93.9	12.0	11.2
Payout per share (EUR)#	-	-	-	-	-	-
Payout yield (%)	-	-	-	-	-	-
P/B (x)	0.9	1.1	1.4	1.4	1.2	1.1
EV/Sales (x)	2.4	2.3	2.9	2.4	2.2	2.0
EV/EBITDA (x)	10.1	8.8	22.3	10.7	7.4	7.8
EV/EBIT (x)	171.5	32.5	n.m.	24.4	13.7	12.5
ROE (%)	(3.6)	0.9	(14.4)	1.5	11.0	10.6

Source: AUGA, LHV *2021E-2024E multiples are based on the share price (17th Dec 2021) of EUR 0.50 per share. # Payout per share include dividends and share capital reduction

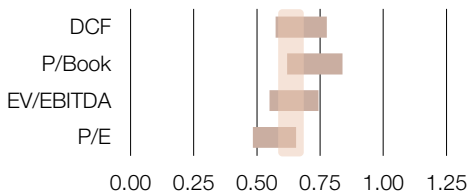
Company Profile	
Listing Market:	Baltic Main List
Bloomberg Ticker:	AUG1L LH
ISIN:	LT0000127466
Industry (Bloomberg):	Consumer Staples
Sector (Bloomberg):	Food, Beverage and Tobacco
Website:	http://www.auga.lt

Share Data, as of 17th Dec 2021	
Current Share Price (EUR):	0.50
Fair Value Range, EUR (FVR):	0.61-0.71
Upside, % (to mid-point of FVR):	32.29
52-week High/Low (EUR):	0.56/0.43
3m Avg. Daily Volume (th):	70.00
Market Cap (EURm):	113.46
Ordinary Shares (m):	227.42

Key Shareholders, as of 30th Sep 2021	
Baltic Champs Group, UAB	55.68%
EBRD	8.71%
Žilvinas Marcinkevičius	7.00%

12-Month Price Performance

LHV Fair Value Range: EUR 0.61-0.71*



* As of 23rd Dec 2021

farming methods. It means that the inputs for the growing process are found in secondary products or the waste of other processes in the loop. For organic farming, the principle of the closed-loop farming method is especially important, as it is forbidden to use any chemical fertilisers or chemicals for plant protection. In organic farming, only natural organic materials can be used, and they are not easily obtained in the market. As a general rule, organic farmers face difficulties in getting enough natural nitrogen fertilisers. The closed-loop farming model permits the Group to offer its customers full traceability, as everything in the production process, from seed to packing, is controlled by itself. The complete traceability guarantee is essential in gaining the long-term trust of customers, as well as that of private label producers.

Recently Auga announced that it has developed the world's first hybrid biomethane and electric tractor for professional farm use – AUGA M1. This is the Group's first step towards offering technological solutions that will help mitigate pollution in the food supply chain, from field to table and allow food to be produced at no cost to nature. The success of the lengthily developed solution is a huge step for the Group to become an AgTech company and potentially gain a substantial share of the agricultural tractor market. Although we see big potential in AUGA M1, the tractor segment is not considered in our financial projections due to many unknown inputs and growth strategies.

We have made revisions to our outlook for the Group to reflect the changes in the financial position since the last update (at the very beginning of the COVID-19 pandemic), namely, reflecting the real impacts of the pandemic and updated further projections.

While in 2020, the Group successfully evaded the pandemic related risks; however, the risks materialised in 2021, creating production disruptions in the mushroom segment. Furthermore, this season in conjunction with the pandemic related difficulties, the Group faced unfavourable weather conditions that severely impacted the crop yields. However, we consider these difficulties as temporary setbacks and maintain a positive view of AUGA's growth in the coming years. The climate change and global warming induced temperature fluctuations certainly increases the uncertainty regarding crop yields; however, the Group is looking to limit the risk of extensive yield fluctuations by replacing half of the current cash crops used for feed with leguminous grasses that are less sensitive to hot weather, which is in accordance with the Group's strategy - SOFA. Also, the diversified income from technology (AUGA Tech segment) sales, rent and consulting should mitigate the impacts on results caused by yield fluctuations in the future. As per AUGA, the current results imply some debt financing limitations for the development and realisation of R&D projects (including AUGA M1); however, the resultant fluctuations due to weather conditions is the nature of the agriculture business. AUGA is conducting conversations with the main debt financing partners and currently sees the conversations as productive, with a positive view on the outcome.

As of May 2020, the DCF valuation method was changed from FCFF to FCFE to appropriately adjust for the changes in financial forecasts caused by the adoption of IFRS 16. Despite the rather upsetting conditions this year, we have increased our fair value range for the Group to EUR 0.61-0.71 per share. The main drivers fueling the growth are increased demand for organic food, increasing subsidies and the successful product line expansion and growth in export volume of the FMCG segment. This represents a 24-45% upside potential relative to the share price of EUR 0.50 per share on 17th December 2021.

Company Overview

AUGA group AB (AUG1L LH, hereafter referred to as the 'Company' or 'AUGA' and together with subsidiaries the 'Group'), a Lithuanian agricultural company, is one of the largest vertically integrated organic food companies in Europe with a goal to deliver traceable and carbon-neutral food to the market. The Group manages c.a. 39.1 thousand ha of arable land and has developed a close-loop farming model, specialising in crops, mushrooms, dairy cows, poultry, and fast-moving consumer goods (FMCG).

The Company was founded in 2003 as an investment company focused on developing Lithuania's agricultural sector, and later in 2007, it changed its name to Agrowill Group AB. It has been listed on Nasdaq Vilnius since 2008 and is currently listed on the Nasdaq Baltic Main List.

In 2014, after a reverse takeover, Baltic Champs UAB merged with Agrowill Group AB, and, as a result, Baltic Champs Group UAB became the merged company's main shareholder, owning 51.6% of all outstanding shares. In declaring a new strategy for Agrowill Group AB, Kęstutis Juščius, the sole shareholder of Baltic Champs Group UAB, proposed shifting from conventional to organic farming. In 2015, the Group announced its new strategy and started a full transition to organic farming, reviewing the operations of the Group and discarding non-core and non-profitable businesses.

Starting from 2015, the Company began investing EUR 15m in new technology aimed at developing its organic farming operations. In 2016, as a part of its new strategy, Agrowill Group AB presented a new brand, AUGA, and it was renamed AUGA group AB. By hiring international specialists in organic agriculture, the Group paced up the accumulation of knowledge in its core agricultural activities, helping the transition from conventional to organic farming. It also accelerated the development of its marketing and end-consumer products, as well as the establishment of its sales department.

As the Company's founders had backgrounds more suited to real estate and aviation, in December 2016, a buy-out agreement was reached with minority shareholders. According to the agreement, Baltic Champs Group UAB, 100% owned by Kęstutis Juščius, acquired 36.57% of the Company's shares from a significant minority, paying in total EUR 41.9m, with an average purchase price of EUR 0.61 per share. Because of this transaction, financed through bank lending, Baltic Champs Group UAB increased its stake in the Company to 88.13%. Afterwards, Kęstutis Juščius, with more than two-thirds of the Company's shares, rearranged the Group and hired a new management board in 2017.

From July-August 2018, the Company completed one of the biggest follow-on public offerings in the history of the Baltic capital markets, selling all 80m shares offered for a total of EUR 36m (with a final offer price of EUR 0.45 per share). The offering included 40m units of newly issued shares and 40m units of existing shares sold by the Company's main shareholder, Baltic Champs Group UAB. Demand was 104% of all shares offered. The leading investor during the public offering, the European Bank for Reconstruction and Development (EBRD), acquired shares for c.a. EUR 9m. The Company and Baltic Champs Group UAB each received gross proceeds of EUR 18m. Following this, the Baltic Champs Group UAB holding decreased to 55.04%.

Shareholder Structure

The authorised capital of AUGA registered with the Register of Companies of the Republic of Lithuania is EUR 65,950,713.08. The authorised capital consists of 227,416,252 registered ordinary shares with a nominal value of EUR 0.29.

Shareholder structure as of June 2021	Number of shares	% of total shares
Baltic Champs Group UAB	126,627,939	55.68
European Bank for Reconstruction and Development	19,810,636	8.71
Žilvinas Marcinkevičius	15,919,138	7.00
Minority shareholders	65,058,539	28.61
Total	**227,416,252**	**100.00**

Source: AUGA

The CEO is Kęstutis Juščius, who is also the sole shareholder and Chairman of the Management Board of Baltic Champs Group UAB. He directly owns 1,392 shares (0.0007%) and indirectly owns 126,627,939 (55.68%) shares of AUGA.

Employee Share Options

On 30th April 2019, AUGA shareholders approved an employee option plan to motivate employees and improve their performances. The plan provides participants with the right to receive shares provided that the three-year service condition is met. After having worked for the Group for three years, the employees are eligible to exercise their options.

The Group stated that it would accrue the costs relating to the granted options during the vesting period as operating expenses in the income statement and as equity in the balance sheet between the date of granting the options and the reporting date. These expenses are all non-cash expenses, as, after the end of the vesting period, the new shares will be issued from the reserves.

In 2020, AUGA made a decision to allocate 2.35 million shares more to employees and members of management bodies of the Company and its subsidiaries. In total, since spring of 2019, the Company has so far allocated 4.9 million shares to its employees. It also plans to allocate c.a. 3 million shares more for the same purpose in the future.

Reserve to grant shares for employees	Number of shares	Value (EURk)
Total reserve as of 31st December 2019	5,600,000	1,624
Shares allocated	4,785,690	1,388
Unallocated shares	3,866,034	1,121
Total reserve as of 31st December 2020	8,651,724	2,509
Shares allocated	7,167,391	2,079
Unallocated shares	3,184,333	923
Total reserve as of 30th June 2021	10,351,724	3,002

Source: AUGA

Business segments

Crop growing – The Group's companies grow organic wheat, legumes, leguminous grass (clover), rapeseed, sugar beets, and other crops, including organic vegetables and organic feed for livestock (feed processing plant currently under testing). During 2020/2021 harvest season, the total cultivated area by the Group was 39.1 thousand ha. The total areas seeded with cash crops was 30.9 thousand ha, out of which 10.4 thousand ha is dedicated to wheat (8.9 thousand ha is winter wheat), 8.1 thousand ha to legumes, and 12.4 thousand to other cash crops. Furthermore, 6.8 thousand ha was used for forage crops.

Dairy – This segment includes organic milk production and cattle raising. The dairy segment operates in synergy with organic crop growing as it consumes forage crops used for crop rotation, and its organic waste is used as fertiliser for crops. For the last three years milking cow number has fluctuated between a 3.4-3.6 thou-

sand range; however, the target for 2021 is to have 3.6 thousand milking cows.

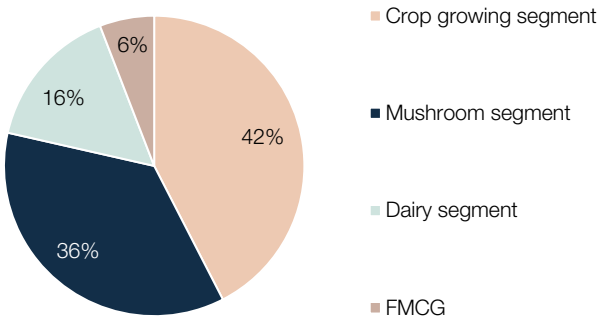
Mushroom growing - Baltic Champs, UAB, part of the Group is the largest producer of mushrooms in the Baltic region. The company grows white and brown champignons, portobello, eringi, shiitake mushrooms and produces compost used for mushroom growing. The proportion of organic mushrooms sold has been small (5-10% depending on the year); however, the transition to organic mushroom production is rather quick, and the Group strives to increase organic mushroom sales proportions in the upcoming years. Fast-moving consumer goods (FMCG) - This segment is of strategic importance for the Group, and currently, it is the fastest-growing segment. AUGA products are based on innovative food production standards and the growing global consumer demand for organic and sustainable food. Presently, all AUGA-branded products are certified organic. Several of the Group's products have won design and quality awards in various international competitions.

As of 2021, the Group produced various products under AUGA brand and other private labels, including:

- Fresh vegetables
- Fresh mushrooms
- Preserved vegetables and mushrooms
- Ready-to-eat soups
- Various grain flours and pulses
- Rapeseed oil
- Chicken products
- Bottled milk
- Eggs
- Oat flakes and instant oat meals

In total, the Group has its product presence in 33 countries worldwide, with the main markets in USA, Lithuania, and Japan. In August 2018, the Group signed an agreement with Costco Wholesale Canada Ltd, one of the largest retailers in the world, operating more than 700 stores worldwide, mostly in the USA and Canada. According to this agreement, the Group's 'ready to eat' soups are sold in Costco's stores. In 2020, AUGA expanded its FMCG product placement in well-known retail chains Stop & Shop in the United States and Metro in Canada. Stop & Shop is a well-known US retail chain with 415 physical stores in the North-eastern United States, while the food retail chain Metro is currently the third-largest in Canada.

Revenue by segments 2020



Source: AUGA

ESG Policies Review

AUGA has unambiguous environmental, social, and governance policies in place. The Group managed to successfully raise EUR 20m (a total of up to EUR 60m can be raised under the programme) through the first tranche, which was a Green Bond, at a fixed annual interest rate of 6% (paid annually) with a five-year maturity. The offer was oversubscribed, with the demand being 125% of the offer base. The bonds started trading on the Nasdaq Vilnius Bond list on 20th December 2019.

The Green Bond was independently evaluated by the Center for International Climate Research ('CICERO'), which confirmed that the Group's bonds were in line with the stated definition of green bonds within the International Capital Market Association Green Bond Principles and awarded the Group with a medium green rating.

Other factors proving that the Group has strong ESG policies include:

1. The Group's goal is to be engaged only in organic and environmentally sustainable farming and food production.
2. Its food products are grown and prepared by preserving and caring for the environment, using the most modern organic farming technology.
3. AUGA is responsible for the entire value chain, including the growing and processing of raw materials to the supply of end-consumer products.
4. It produces organic products at a fair price, using the latest technology, economies of scale, and synergies between different branches of agriculture.
5. AUGA is proactively engaging in R&D for technology that substantially reduces the environmental impact from agricultural operations and enhances efficiency.
6. AUGA is a socially responsible employer, providing competitive wages and attracting talent, providing fair labour conditions and protecting human rights.

The Group has stated that it is committed to sustainable farming and organic food production. Within these activities, it is committed to contributing to the achievement of seven of the United Nations Sustainable Development Goals ('SDG') – climate action; life on land; decent work and economic growth; responsible consumption and production; and industry, innovation and infrastructure; good health and well-being; and zero hunger.

In particular, AUGA has identified the following ways to meet the SDG:

- Climate action and life on land will be achieved through sustainable farming, the sustainable use of land, and adaptation to climate change challenges;
- Decent work and economic growth will be achieved through fair labour conditions, employee health and safety, investing in business communities, and development of the regional economy;
- Responsible consumption and production will be achieved through consumer well-being, product quality, and safety and protection of consumer rights; and
- Industry, innovation, and infrastructure will be achieved through investing in innovations to preserve natural resources, investing in sustainable farming technologies, and investing in sustainable energy.
- Good health and well-being will be achieved through insuring occupational health and safety, fighting air and water pollution.

- Zero hunger will be achieved by providing healthy and affordable food products to the market, improving biodiversity and land quality and transforming the whole food production chain as a future goal.

The Group has also stated that it acknowledges that its business affects the natural environment. Based on AUGA's environmental policy, it applies the principles of sustainable farming and takes into account the interests of all its stakeholders, including its shareholders, customers, partners, employees, and communities in which it operates. In terms of the environment, the key responsibilities are towards the responsible consumption of energy and resources, the use of climate change mitigation measures and ecology.

AUGA assumes the responsibility for the environmental impact of its activities and undertakes to reduce the impact by:

- Operating in compliance with all mandatory requirements of environmental legislation;
- Cooperating with business partners, public authorities, and agencies on environmental issues;
- Monitoring the environmental impact – measuring the carbon footprint of the organisation and aiming to reduce it;
- Saving nature and energy resources by using renewable energy sources and aiming to produce its own biogas that can be used for its organic farming activities;
- Reducing as much waste as possible by applying the 'reduce, reuse, and recycle' principle; and
- Developing employee competence and a responsible approach towards environmental protection.

The Group does not only want to comply with the minimum mandatory legislative requirements. It also aims to contribute to the development of good practices for organic farming and the food production chain, as well as being a role model for other enterprises in its industry.

AUGA's vision of sustainable organic agriculture includes three primary goals or strategies:

1. To apply min-till technology and use the required machinery for cultivating the land;
2. To operate a closed-loop farming model, which effectively uses synergies among different brands of agriculture
3. To run tractors and other vehicles on biogas produced from the organic waste collected from its integrated farms; and

The envisaged vision is already in place, but of course, there is scope for improvement. Currently, AUGA is applying min-till technology and has a rather fundamental closed-loop farming model; furthermore, with the announcement of biogas tractor AUGA M1, the use of biogas equipment and biogas production infrastructure is expected to be applied gradually in 2022.

Sustainable Organic Food Architecture

To follow on with its ESG policies and aim to fully integrate sustainability into Group's culture, the Group has developed a new operating strategy that it has coined the "Sustainable Organic Food Architecture" (SOFA) that will enable it to deliver climate (carbon and equivalent) neutral organic food.

SOFA allows the Group to position itself with consumers, farmers, lenders, and shareholders to align with their sustainable-centric preferences with their consumption, work, and investment activities. It will allow the Group to create the opportunity for high quality, healthy food at no additional cost to nature. As such, AUGA plans to reposition itself as an asset-light, food and agtech company that adopts a self-sufficient circular model and allows the world to live more sustainably. In doing so, AUGA plans to integrate technology that:

- aims to increase animal welfare and productivity;
- aims to minimise the effects on the environment; and
- proves such a track record valid for every unit of organic produce throughout the value chain.

AUGA entered 2020s with an innovation agenda having the goal of becoming a CO_2 equivalent neutral player in production of organic food by 2030. To achieve this, the Group intends to:

- improve efficiency in existing business units to be able to align yields and cost structures between conventional and organic;
- design SOFA to create a multi-level innovation scheme to address the most pressing technological bottlenecks in the world of food production while retaining scale, quality, and yield productivity as it grows; and
- reduce CO_2 equivalent emissions to a minimum point through the value chain and neutralise the balance.

The Group is splitting the goals into short, medium, and long term strategies. It plans to achieve a two-fold undertaking of increasing the efficiency of existing business units in the short-term (2020-2023) and constructing the SOFA in the medium-term (2020-2025). The Group's strategic initiatives for efficiency include the following:

- Crop growing segment foresees the introduction of regenerative crop rotation plans with more expedient seed mechanisms and a higher level of grass cultivation and processing efficiency, drawing from the best practices generated at AUGA academy.
- Dairy segment embarks on an initiative to increase animal welfare via a customised animal care programme, defining the key components of everyday well-being from milking to feeding.
- Mushroom growing segment seeks to revisit the entire cycle of

Sustainable for AUGA community			
Consumers	**Farmers**	**Private and Institutional Lenders**	**Shareholders**
Means eating while remaining aware that the most basic need is not inflicting damage on the planet but is helping to save it.	Means presenting farmers with an alternative standard of sustainability in agriculture.	Means empowering lenders to have the highest impact on the greening of the food value chain.	Means endowing shareholders with a threefold opportunity to multiply their investment, empower the future of the food value chain, and help save the planet.
Success for AUGA in 2025			
Ability to deliver consumer basket with the least cost to nature.	Functionality of the SOFA.	Resilience in business structure through long-term financing and impact-driven lenders.	Unique asset-light business model, able to demonstrate ROE ≥15%, multiply the Group value by 3x and retain growth dynamics in the periods to follow.

Source: AUGA

Source: AUGA

the mushroom cultivation blueprint with the introduction of technology in key labour-intensive areas, such as picking and packaging.

- Fast-moving consumer goods segment undertake a mission to consolidate its market positions with its own and private label brands, not only in established but also new markets.

These include issues such as solving the cost to nature of the produce, namely, the ability to deliver climate-neutral food under the key conditions of an incremental increase in quality, efficiency, and yield productivity by 2030. This includes adapting three levels of technology into its SOFA blueprint (in addition to the existing closed-loop sustainable farming model), including:

- Biogas cycle infrastructure and tractor to enable farm operations to run without fossil fuels, and tighter integration of the circular business model, whereby the secondary role of manure in the cycle will be utilised both for fertilisation, as well as for powering farm operations as biofuel.
- Specialised feed technology to reduce methane emissions from ruminants per animal unit and decrease the CO_2 equivalent emission rate per the corresponding group of products.
- Regenerative crop-rotation to substitute the share of cereal cultures with leguminous grasses that demonstrate carbon sequestration and nitrogen fixation capabilities, in an attempt to reduce the absolute rate of emissions and to become an integral part of livestock operations.

The Group is also working on implementing a practical set of standards for the consumer basket, which will be accompanied by a list of CO_2 equivalent emission reduction goals. By 2025, the Group is aiming to cut emissions from the use of fossil fuels on its farms by 40% (and by 50% in the consumption of fuels in its farming operations), methane emissions from enteric fermentation in livestock at least by 33% (and by 50% per tonne of cow's milk produced) and emissions from managed soil by 20% (and by 30% per cent per tonne of agricultural dry matter yield).

The aspect of enteric fermentation is particularly relevant, as it is part of the livestock's digestive process, of which methane is a by-product. The methane is then exhaled by the animal (particularly cattle, sheep, and goats). The level of emission per head of livestock can be reduced through management practices, including the type and amount of feed consumed. Therefore, by better feed management, the Group would be able to improve the enteric fermentation process and reduce the volume of methane exhaled by the livestock.

On 29th September 2021, AUGA announced that it has developed the world's first hybrid biomethane and electric tractor for professional farm use – AUGA M1; thus, AUGA has already started to implement parts of the SOFA strategy, furthermore it is expected that enhanced feed for cows will be delivered until 2025, considering its recent investment in a feed manufacturing plant which is under testing.

To sum it all up, AUGA has a very clear vision of their business model and ESG, which go hand in hand. Furthermore, there is a clear strategy on how to achieve its vision, but most importantly, substantial progress has been made, and we can see tangible results.

The COVID-19 Pandemic Impact

Several factors like weather, insect and animal density, and consumer trends influence the financial performance of the Group, but the reality is that the coronavirus is currently one of the first thoughts on many people's minds across the world. According to World Trade Organization (WTO), trade in agricultural products has been more resilient than overall trade. This reflects the essential nature of food and the resulting relative income-inelasticity of demand for it, as well as the fact that most agricultural trade (notably cereals and oilseeds) takes place in bulk marine shipments that have not been subject to major disruptions. While overall merchandise trade fell sharply in the first half of 2020, agricultural and food exports increased by 2.5% during the first quarter of 2021 compared to the same period in 2019, with an increase of 3.3% in March, followed by a 0.6% increase in April, although the preliminary data for May indicate a small decrease (-1.3%) compared to 2019.

WTO has observed that demand for certain agricultural products (e.g., non-food agricultural products such as raw fur skins, wool, or flowers) dropped dramatically while increased for others (e.g., staple food, processed fruits and vegetables), reflecting initial panic buying and increased home-based consumption. Supermarkets have had to face the challenges of empty shelves and the potential to increase food prices (especially as restaurants have had to limit their activities, adding more strain on the supermarkets). In April 2020, exports also dropped for several food products, notably for higher-value products, such as fresh produce, dairy, and meat, which are generally more dependent on sales to restaurants, schools, and the tourism sector than to households. In addition, high-value perishable products transported by air were hit harder by the sudden collapse in air passenger traffic, which diminished air freight capacity and raised costs.

After a year of the pandemic, the industry has adapted to the global restrictions; however, minor supply chain issues still stand due to burdened working conditions and various restrictions from country to country. HoReCa sector is gradually starting to pick up the speed as restrictions are loosened for hotels, restaurants and cafes; however, in some countries, vaccination certificates are necessary to use these services. As vaccines brought the light into the tunnel, the recovery is not as rapid as anticipated. According to Our World in Data, "55.4% of the world population has received at least one dose of a COVID-19 vaccine (as of 10th December 2021). In developed countries, rates (compared to global) tend to be higher and lower in developing countries. In the Baltics, the vaccination rate for fully vaccinated people is around 60%-70%. That said, the pandemic related risks, although reduced, still stands at a moderate level considering the high contagiousness of COVID-19, mutation of disease with higher contagiousness, and the reported cases of vaccinated people getting infected. As the restrictions were loosened due to reduced infection rates, it can be observed that the infection rates are increasing, leading to a third wave. Consequently, the pandemic related issues most likely will be present for a while, but the consequences on businesses should not be so severe as in the first wave due to the fact that now businesses and policymakers have adapted to the situation and know what to expect and how to act.

AUGA's Opinion on the Pandemic

In 2020, the Company was operating at its planned seasonal capacity; however, in 2021, the pandemic-related risks materialised in the mushroom segment. The Group has put measures in place to ensure the health and well-being of its employees, including shifting its office-based employees to remote working, while farm and production employees have been rearranged to minimise contact and the spread of the virus. In particular, it has stated the following about its segments:

- **Crop growing** – The Group has indicated that the virus is unlikely to significantly impact the crop growing segment, as all obligations are executed according to the existing agreements. AUGA did warn, though, that there may be logistical risks, with rising transportation costs and a potential labour shortage if the virus spreads too rapidly. However, the Group is not too concerned over the latter as they believe that they can fill the gap with temporary employment due to the growing labour supply.
- **Dairy** – AUGA has stated that its milk production is running at its regular capacity and demand remains strong. The milk is being delivered to the local Baltic and Polish markets, particularly fresh milk products. There should not be any change in demand, with organic milk amounting to c.a. 97% of sales.
- **Mushroom growing** – The primary concern for the mushroom segment is that it is a labour-intensive operation and based indoors. The Group is implementing safety measures to minimise contact between employees and setting up temporary employment options. However, a labour shortage occurred during the first nine months of 2021 with employees getting infected or feeling some of the symptoms, but the infection risk is expected to decrease with production units vaccination rate already reaching around 70%. That said, the production is temporarily reduced, but overall demand has not been hurt as the negative impact of the drop in demand from the HoReCa sector has been offset by an increase in retail sales. With increased demand for packaged mushrooms, this has possitive effect on prices, but cost level had increased as well and lowered profitability in a short term. But in a long term – this could be a driver for profitability increase. Additionally, the HoReCa sector only accounts for less than 10% of mushroom sales and less than 2% of total sales.
- **Fast-moving consumer goods** – As expected, the Group witnessed a growing demand for long shelf-life packaged products (e.g., dairy products and soups) in all its markets. This has been spurred on by consumer panic buying before severe restrictions, which has supported sales, especially as they are long life and highly nutritious foods. The main concern rests with the supply chain of the raw materials that are not produced in-house.

Food for Health

There is an increasing perception that organic food is healthier for human well-being because there is no utilisation of fertilisers, pesticides, fungicides, or other chemicals when the food is grown. Organic farming has to comply with strict standards about the use of chemicals; for example, no synthetic fertilisers and pesticides can be used, there may be no traces of chemicals on the cultivation land, and the organic animals are also raised without pushing antibiotics, hormones or other medication into their system.

The presence of pesticides in food products has been shown to cause many diseases, including asthma, congenital disabilities, cancer, reproductive dysfunction, diabetes, autism, Parkinson's and Alzheimer's diseases. In terms of fertilisers, mineral phosphorus fertilisers that are used in convention farming contributes to increased cadmium concentrations in agricultural soils in the long run. This increases the human health risks, as food forms the dominant route of human exposure to cadmium in non-smokers. This impairs lung function and increases the risk of lung cancer.

According to CSIS, certain foods should be eaten during this period to help strengthen the body's immunity. While the food in itself may not be the cure to the coronavirus, improving immunity can help the body withstand infections and diseases as a natural defence and resistance to pathogens. This can be done by consuming foods with high levels of vitamin B6, vitamin C, vitamin E, magnesium, and zinc.

Additionally, according to Nielsen, the outbreak has sparked sharp

growth in the organic food demand. The pandemic has changed consumers' purchasing habits by increasing their focus on healthier products and fresher products to accommodate for increased consumption at home. These are likely to further support the demand for organic foods.

AUGA can cater to some of these nutritional needs. It already produces long shelf-life products out of mushrooms, beetroot, and chickpeas. These three are particularly important since:

- **Mushrooms** – according to Boston University, these are high sources of vitamin D, which regulates the production of a protein that can kill infectious agents such as bacteria and viruses selectively. It also alters the activity and number of white blood cells, which can also reduce the spread of bacteria and viruses.
- **Beetroot** – beetroot has high levels of nitrates that are converted into nitric oxide in the body. Nitric oxide plays an important in allowing cells to signal between each other and has shown to have an inhibitory effect on some virus infections. Studies have shown that nitric oxide not only significantly inhibited the replication cycle of SARS CoV in a concentration-dependent manner, but it also inhibited viral protein and RNA synthesis.
- **Chickpeas** – according to the Academy of Nutrition and Dietetics, chickpeas are high in protein, which is an essential nutrient made of amino acids that help grow and repair the body's tissues. Additionally, chickpeas offer high levels of zinc, which helps the immune system control and regulate immune responses.

In 2020, AUGA sold almost 300t of long-self (canned products) products containing above-mentioned ingredients; furthermore, canned products containing legumes are by far the largest product group. The Company, in its production capacity, is very flexible and can react to high demand increase, i.e. the production capacity can be increased almost ten times without substantial investments (e.g., additional staff shifts).

Organic Food Market

Organic Food Demand

According to FiBL & IFOAM, the value of the global organic food and drink market increased by 7% from USD 105bn in 2018 to USD 112bn in 2019, in the EU alone, organic food retail sales reached EUR 41.5bn in 2019 (8% growth y-o-y), more than doubled its value since 2010, constituting 129% retail market growth. According to The Business Research Company, the global organic food and drink market reached USD 202bn in 2020 and is expected to reach USD 381bn by 2025 at a CAGR of 14.5%.

Part of the rapid growth of the organic food and drink market from 2019 and 2020 (approx. 80%) could be attributed to different market value estimate methodologies between the two sources; however, the global COVID-19 pandemic is creating a demand surge in organic foods. Consumers are increasingly turning to organic foods as they look to boost their personal immunity.

Consumer education is a complex and costly process for companies. In the time of the pandemic, the increasing consumer awareness about their own immunity and benefits from organic food works in favour of the Group and the organic food market itself. The pandemic has brought an opportunity for AUGA to rapidly expand its presence of packaged organic food products on market shelves as the increased awareness should add value to such products.

The US has the largest market for organic food and drink, though Denmark has the highest market share, with 12.1% of retail food sales being organic. The highest spenders in the EU (per capita) on organic products are in Denmark (EUR 344), Switzerland (EUR 338), Austria (EUR 216), and Sweden (EUR 215), while consumers in eastern EU and Baltic countries are spending the least in the EU. North America and Europe dominate the organic market (roughly 90%), but their overall share has declined as the demand for organic products strengthens in emerging economies. In particular, there has been an increase in demand from China, Brazil, India, Mexico, and Argentina. The Asia-Pacific organic food and beverages market is expected to grow, with the highest rate in the coming years, due to rising affinity and awareness for organic ingredients and increasing green consciousness in the region.

Within Europe, in terms of organic share of retail sales, consumers in Denmark (12.1%) and Switzerland (10.4%) have shown the greatest commitment to high profile food and a growing interest in getting to know the production methods and origins of what they eat. Likewise, the organic share in Austria in 2019 reached 9.3% of retail sales. A lower integration of organic products is observed in several other countries, including Spain (2.8%) and Italy (3.7%). In Eastern Europe and the Baltics (except for Estonia), there has been a below-average uptake of organic products, with 0.6% in Poland, 1.5% in Latvia, and 1.0% in Lithuania. These countries are still at an early stage of development, and demand has not yet fully emerged; however, in Estonia, growth can be observed from 2.6% in 2017 to 3.7% in 2019. Latvia and Lithuania in the period 2017-2019 have shown no change.

Despite the price premium on organic foods, the global organic food market continues to grow due to (i) an increase in per capita income, (ii) the growth in awareness among consumers for health and food safety, (iii) the emergence of concerns for environmental issues, and (iv) the change in lifestyle among the younger age groups. Looking two years ahead, the EU and other policymakers are initiating radical change towards a sustainable food system, including a gradual shift to organic farming and food consumption in public institution catering.

The increased demand has also resulted in improved accessibility, with supermarkets, discounters, drugstores, pharmacies, and the catering and foodservice providers all offering organic options. There has even been a shift among European and North American foodservice establishments that are now using organic ingredients. According to USDA, in the US, organic products are now available in nearly 3 of 4 conventional grocery stores.

Therefore, the change in demand has begun to change the mindset of suppliers. For example, large chained outlets are making commitments to organic product sourcing, while major industry players in the organic food market are undertaking different strategic initiatives, including widening their range of innovative products.

Crop Segment

Wheat

According to Fortune Business Insights, the increased demand of the consumers for organic and clean-labelled products owing to their perceived health benefits has mainly driven the growth of the organic wheat flour market. Organic traceability and sustainability further support the market growth.

The demand and supply gap in the organic wheat flour market is a major factor restraining its growth. The shortage in supply can be mainly attributed to the low adoption of organic farming practices as compared to conventional farming. The high price of organic products is another factor that has also impeded its market growth.

Europe is expected to witness significant growth in the upcoming years due to the shifting consumer preferences towards organic and clean-labelled foods products. The increase in per capita consumption of organic products due to their associated health benefits have

fueled regional growth.

Legumes

One of the best alternatives to meat is legume seeds, which are a valuable source of vegetable protein. Thanks to their beneficial influence on the environment and their nutritional and health benefits, they are called "superfoods" and the protein of the future, and the promotion of their wider use is carried out in campaigns on a global scale. It is suggested that people limit the amount of meat in their diet and increase their consumption of legume seeds. This is extremely important in terms of reducing the amount of saturated fatty acids that can cause many serious diseases when consumed in excess.

Currently, about 42% of the protein consumed in the EU (European Union) is derived from plants, and the remaining 58% is derived from animals (meat, fish, eggs and dairy products). In a scenario modelled by the European Commission, diets will gradually change over the next ten years to a 50/50 ratio. Consumers will continue to consume the same quantity of calories, proteins and fats. It would lead to a 17% decrease in animal protein consumption.

According to a study "Consumers' Purchasing Intentions on the Legume Market as Evidence of Sustainable Behaviour", consumers have shown a good knowledge about legumes and the relationship between their cultivation and environmental improvements. A study showed the availability of legume products depending on consumers' place of residence. There are different sales channels for these products, but there are no clear obstacles to purchasing the desired goods. Shops specialising in different world cuisines, offering legume products from different countries, usually sell online in addition to traditional channels.

Dairy Segment

In terms of organic milk, according to Absolute Reports research, the global Organic Milk market size was USD 4.8bn in 2020, and it is expected to reach USD 7.2bn by the end of 2027, with a CAGR of 6.1%. North America is the largest region of organic milk, with a market share of nearly 40%, followed by Europe with 30%.

Organic milk is a dairy product obtained from animals fed with organic feeds. These animals lack synthetic feed or treatment in their diets. The global organic milk market is expected to rise significantly as the demand for natural and organic food products increases. Growing popularity among consumers regarding the health benefits associated with the consumption of organic food has a positive impact on the global organic milk market's growth. Apart from this, improving the distribution and supply chain of organic dairy products in confluence with the burgeoning online food retail sector is increasing the accessibility to these products around the world. Further, technological advancements for developing innovative products with low fat and reduced levels of sodium and sugar are anticipated to drive their demand in the upcoming years.

Mushroom Segment

According to Grand View Research, the global mushroom market was valued at USD 46.1bn in 2020, and the industry is expected to grow at a CAGR of 9.5% from 2021 to 2028. As per AUGA, due to hot and dry summer, produce volume was limited in the mushroom sector; thus, currently, demand is exceeding supply. Considering that AUGA grows mushrooms indoors in regulated weather conditions, it is a great opportunity to fill the space in the market.

Mushrooms are widely accepted by consumers as they are generally considered good for health due to their low sodium, gluten fat, and cholesterol content, as well as their medicinal qualities. They are grouped under vegetables and contain various nutrients such as potassium, vitamins and selenium. Selenium and other antioxidants in mushrooms are known to help combat cancer by detoxifying cancer-triggering compounds in the body and also plays a vital role in liver enzyme function.

Mushrooms also help reduce inflammation and tumour growth and contribute to cardiovascular health as it contains fibre, Vitamin C, and potassium. Additionally, the consumption of mushrooms can reduce the chance of high blood pressure and cardiovascular diseases due to the low sodium and high potassium content. Producers are also introducing common mushrooms enriched with microelements such as selenium, magnesium, and vitamin D, via compost, though there are still sceptics in this regard.

Some of the main mushroom products include shiitake, button, oyster, and others which contain paddy mushroom, milky mushroom, reishi mushroom, and winter mushrooms. The demand for processed mushrooms, such as canned, dried or frozen, has risen considerably.

Another reason for the strong outlook for the demand for mushrooms is the shift in consumer preferences towards veganism and the increased demand for meat substitutes. In particular, button (champignon) and shiitake mushrooms are rich in protein, which makes them a viable alternative for meat.

FMCG Segment

According to Mordor Intelligence, European ready meals market is projected to grow at a CAGR of 5.70% during 2020-2025, and future consumption growth for dried soups is expected to grow significantly in Europe as people are more interested in having quick meals due to busy lifestyles.

Organic food retailers throughout the world reported substantial organic food sales increase. According to Nielsen, US organic food sales increased by 25% in the 17 weeks prior to July 2020. In the UK, organic food sales rose by 18% in the 12 weeks before June. In France, organic shops like Biocoop and Naturalia reported sales increases of over 30% since the crisis started. Organic food shops are attracting new customers whilst existing customers are spending more.

Online organic food retailers are reporting the highest sales growth. In April, UK Whole Foods, natural and organic food retailer, was limiting the number of its online grocery customers because of unprecedented demand. Organic vegetable box scheme operators such as Abel & Cole and Riverford reported a demand increase of c.a. 25% in March 2020. In Asia, online retailers reported the same trends; an Indian online retailer experienced a 30% sales rise in March 2020. Greenheart Organic Farms and Koita Milk in the UAE observed a three-fold increase in-home deliveries.

According to Euromonitor International, global value sales of organic packaged food value grew by 13% at fixed 2020 exchange rates. In fact, the growth rate for organic packaged food was the highest among all health and wellness categories in 2020. High growth rates for organic were seen not only in developed regions such as North America (16%) and Western Europe (9%) but also in developing regions such as Asia Pacific (12%) and Latin America (8%).

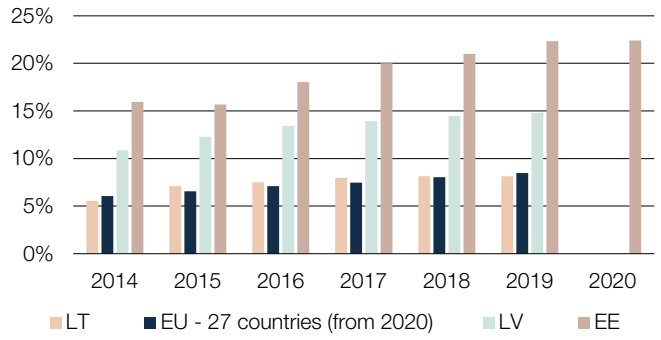
The highest growth of packaged organic food value sales in North America brings a promising potential for AUGA's fast-growing FMCG segment products, especially soups, as the US in three years has become AUGA's FMCG largest market with strong double to three digits y-o-y growth. A positive remark has to be made about decent growth in Western Europe and Asia Pacific regions as AUGA's products are covering mentioned markets.

Increased consumer demand most likely is to stay strong as for physical and online organic food retailers or organic food in general. The pandemic will keep consumers concerned about their immunity; furthermore, the social distancing measures are turning consumers to choose online shopping.

Organic Food Production

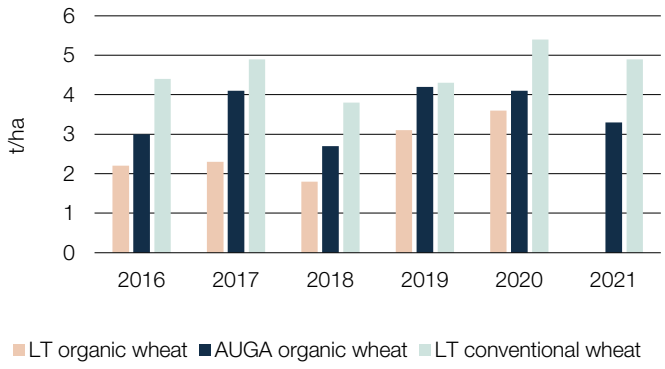
In 2019, c.a. 8.5% of the total EU-27 farmland was classified as organic land. This equates to 13.8m ha and 19% of the total 72.3m ha of global organic farmland (1 pp increase compared to 2017). Most of the organic farms are in Spain, Italy, France, Austria, and Germany, though the countries with the largest share of organic in total agricultural land include Liechtenstein (41%), Austria (26%), Estonia (22%), Sweden (20%), and Switzerland (17%), all showing a slight increase compared to 2017. In total, the EU organic farmland area has more than doubled over the decade 2006-2016, with 292,000 organic farms operating in 2016.

Percentage of fully converted and under conversion to organic farming area



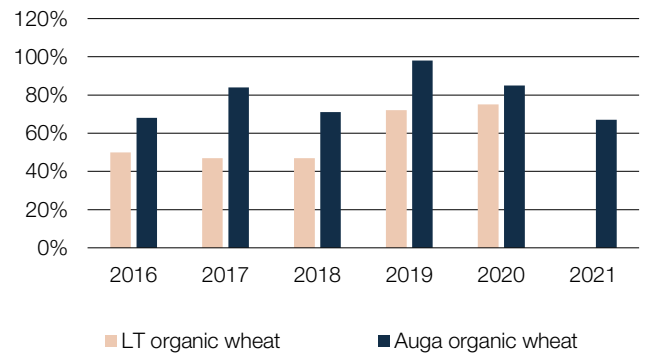
Source: Eurostat

Wheat yield in Lithuania



Source: AUGA for historicals, Lithuania statistics for forecasts

Wheat Yield Ratio (LT Conventional = 100)



Source: AUGA for historicals, Lithuania statistics for forecasts

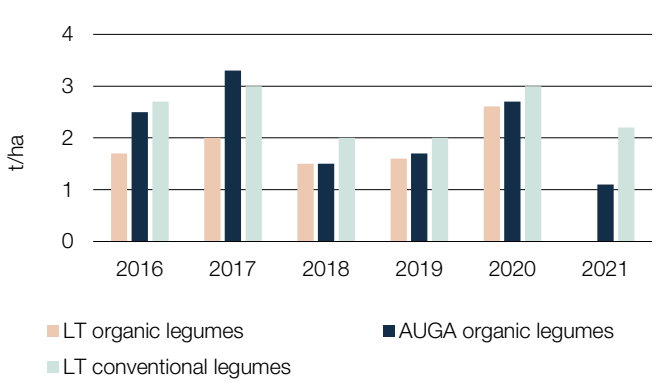
Crop Segment

As per various research studies, the average yield of organic wheat compared to conventional is between 58%-73%, with wide range yield differences of 40%–130%. For example, wheat yields tend to be only 40% (in Germany) to 85% (in Italy) of those achieved in conventional farming.

According to EU study, input costs are classically lower in organic farms (field crop farms) due to minimal use of fertilisers and pesticides. The costs for fuel and lubricants are similar and sometimes higher since there is usually a stronger reliance on mechanical techniques in organic farming. Organic farming is more labour-intensive but not necessarily more costly. Generally, most of the operations can be automated; the difference lies in the technology used. Furthermore, the cost of the equipment is rather similar. Overall, in terms of profitability (net market income per annual work unit), results vary according to the performance of the organic farm. The pattern can be observed that for those countries where farmers have substantially lower yields have less profitability compared to conventional farms; however, organic farms with close to conventional yields have better profitability. Obviously, the yields play a very important role here. Considering the Group's achieved yields in wheat production, the results show that the technological advancement and farming knowledge is substantially higher than of its peers in organic farming in Lithuania, Germany, France, Spain, Austria, US and generally compared to average yields from wider studies. This certainly puts the Group in a good position within the organic farming industry.

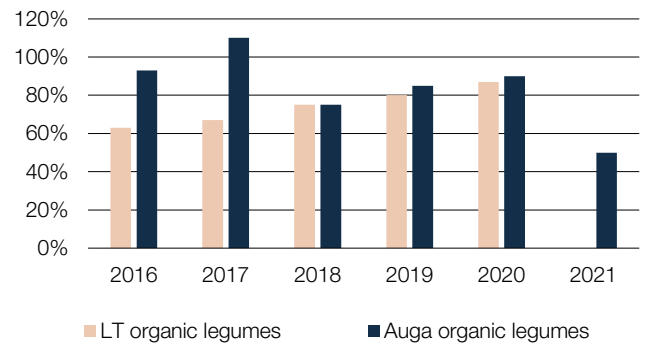
The use of legumes for food purposes prevails in the world. Among

Legumes yield in Lithuania



Source: AUGA for historicals, Lithuania statistics for forecasts

Legume Yield Ratio (LT Conventional = 100)



Source: AUGA for historicals, Lithuania statistics for forecasts

Average US Conventional and Organic Winter Wheat Yields, 2015 to 2019			
Organic, t/ha	2.76	Ratio	68%
Conventional, t/ha	4.04		

Source: FIN BIN Database

the species (with the exception of soybeans), the most important in terms of cultivation area in the world are beans (41.4% of the cultivation area) and chickpeas (16.5%). The area of legumes sown for seeds in the world has remained at a similar level for several years and ranged from 61 to 70 million ha. After 2010, there occurred a visible increase in the area of cultivation. In 2017, 95 million ha was sown with legumes worldwide, which constituted over 50% more than in 1980 and 30% more than in 2010. In the European Union, most legume seeds are harvested in France, over 800 thousand tons. Poland ranks fourth (624 thousand tons), after Great Britain (743 thousand tons), and Lithuania (710 thousand tons), among the legume producers in the European Union. The biggest area among the EU countries sown by legumes belongs to Spain (521,386 ha); the second belongs to Poland (316,208 ha).

Dairy Segment

Production of organic dairy products is concentrated in the EU-15 countries, with Austria, France and Germany, jointly having 52% of the EU's organic dairy cows. Overall, the organic milk production in the EU has been growing at a CAGR of 9% during 2015-2019. That said, the share of organic milk in total milk production is still low at slightly over 3% in 2019. The four exceptions, though, include Austria (16%), Sweden (15%), Latvia (10%), and Denmark (10%).

Studies show that the organic milk production yields generally are lower compared to conventional systems, where yields vary from 72% to 92%. In 2020, the average yield (kg/cow/day) in the EU was 20kg/cow/day. AUGA's achieved average yield was 21kg/cow/day compared to conventional dairy production yield of 25kg/cow/day in Lithuania. AUGA's dairy yields have increased for the last three years (from 2019 to 2020 average yield increase - 6%), although at the end of 2020, the yield curve approached 2019 yields, due to a change in feed structure, the yields for Q2 2021 are increasing again by reaching 21.92 kg/cow/day in June and 21.22 in July, exceeding 2020 yields by 5% and 2%, respectively. Remarkably, AUGA has exceeded the average cow milk yield in the EU. However, it is slightly behind Lithuania's conventional cow milk yields, although the gap is expected to shrink.

EU Annual Organic Milk Production (tonnes product weight)						
Time	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Belgium		92,429	112,145	120,077	125,000	n.a.
Bulgaria	7,347	8,639	8,531	5,280	11,072	n.a.
Czechia	32,759	32,916	32,375	33,433	33,578	32,167
Denmark	483,350	516,131	594,000	689,600	708,400	n.a.
Germany (until 1990 former territory of the FRG)	736,065	794,717	939,080	1,117,821	1,184,742	n.a.
Estonia	8,765	10,650	7,186	7,386	8,211	8,879
Ireland	5,978	7,335	9,035	17,791	11,037	n.a.
Greece	56,476	41,578	57,289	75,722	104,938	130,887
Spain	24,087	25,129	28,476	42,006	56,164	68,574
France	608,684	603,774	678,849	909,336	1,075,631	n.a.
Croatia	5,987	5,163	5,782	3,094	1,476	1,869
Italy	340,128	396,074	448,184	n.a.	n.a.	n.a.
Cyprus	1,433	1,696	2,341	3,706	4,763	n.a.
Latvia	83,451	97,981	96,549	94,327	88,116	n.a.
Lithuania	40,060	41,511	65,678	68,133	75,930	n.a.
Luxembourg	2,510	2,832	3,277	4,298	4,772	n.a.
Hungary	11,534	13,759	13,487	4,721	4,985	n.a.
Malta	0	0	0	0	0	0
Netherlands	197,956	218,061	247,795	293,681	301,634	n.a.
Austria	440,924	552,389	612,629	635,751	642,340	n.a.
Poland	25,243	25,583	26,734	26,773	26,655	n.a.
Romania	38,478	34,995	:	28,062	42,443	n.a.
Slovenia	6,036	7,128	6,051	7,187	7,740	7,715
Slovakia	9,528	16,536	21,140	25,998	19,598	22,577
Finland	55,800	56,786	64,460	71,028	76,214	n.a.
Sweden	370,259	371,015	414,233	464,970	464,170	n.a.
Norway	53,113	52,885	51,864	51,667	50,589	n.a.

Source: Eurostat

Mushroom Segment

Europe is the largest global market for mushrooms accounting for more than 35%. The largest producers of fresh cultivated mushrooms from 2015 to 2019 were the Netherlands (302,000 t), Poland (224,000 t), Spain (156,000 t) and Italy, France, Ireland, Germany, all producing c.a. 70,000 t of mushrooms.

There are several benefits of farming mushrooms. For example, animal and bio-based industrial waste can be used as a valid alternative for mushroom cultivation; land usage is less in mushroom cultivation than for other vegetables; and mushrooms can be grown in lawns, woodlands, and polytunnels. On the downside, mushrooms have a short shelf life, and mushroom cultivation is both labour-intensive and expensive in terms of operational costs.

Within Lithuania, there has been a decrease over the last year in terms of the harvested area and the harvest volume, although relatively much smaller decrease. The production efficiency has increased substantially by 45%. However, this does not necessarily reflect the state of organic mushroom production.

Lithuanian Mushroom Production	2018	2019	2020
Harvest Area, ha	52	53	35
Harvest, tonnes	11.364	11.462	11.056
Yield, t/ha	219.00	217.90	316.80

Source: Lithuania Statistics

According to Mordor Intelligence, farmers across the world have started accepting mushrooms as one of the more profitable businesses due to increasing consumer demand. An increase in R&D activities and innovation in mushroom cultivation is expected to further help the fresh mushroom market develop rapidly. Successful implementation of mushroom production technological solutions (currently under development) will bring major profitability growth to the Group's mushroom segment in terms of reducing the cost of sales.

Organic Food Price Premium

Several studies show a high degree of variability in the 'organic premium' across different products and countries. A study by Morgan Stanley in 2014 into the US market compared the cost of 100 commonly purchased food items at different stores, focusing on selected organic/natural food sellers. The study found that organic products command, on average, cost premiums of 47% compared to non-organic products within the same store.

The Nielsen report states that there is a significant variation between products. For example, the average price for a gallon of organic milk costs USD 4.76, which is 88% higher than the USD 2.53 paid for a gallon of regular milk. Similarly, organic eggs have an 86% premium, while organic bread costs around double the price of regular bread.

Part of the reason behind the price premiums for milk and eggs in the US is due to the government rules for what "organic" means. For example, cows producing organic milk must be allowed to graze for at least one-third of their food intake. These rules are there to benefit animals, consumers and the environment, but this also increases the price of production.

Comparatively, organic and conventional vegetables are grown in similar ways, so the price difference tends to be lower. Organic farmers can save money by not using pesticides or synthetic fertilisers, but there may be higher costs involved in paying more for workers to pull weeds or control bugs.

At the other end of the scale, organic baby food costs just 3% more than conventional baby food, while a bunch of organic kale was only 5% more than conventional kale. There are even some organic products, such as artichokes, soy milk, and Granny Smith apples, that cost less than their traditional counterparts.

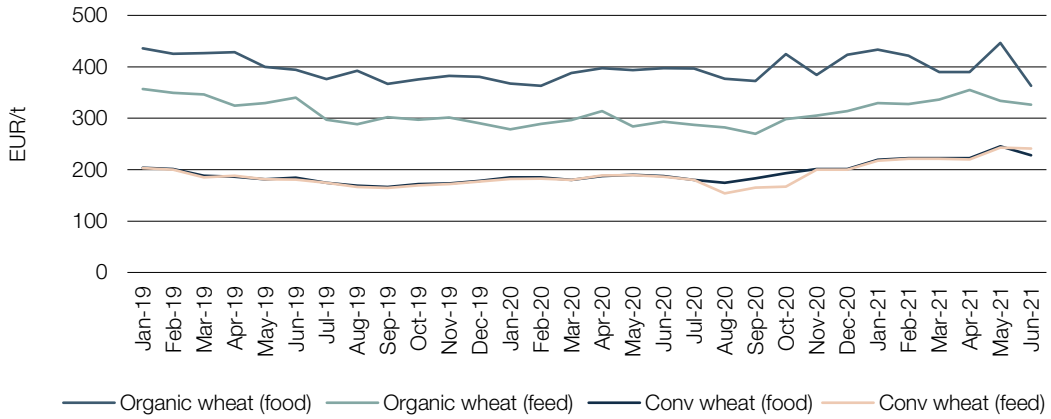
In addition to the increased variety of organic solutions available in the market, another reason for the falling price premium is increasing accessibility. Traditionally organic products were only available from health food stores and high-end grocery stores. However, organic food products have now become more mainstream and thus more readily available from standard stores

Crop Segment

The price premium analysis is conducted for the German market, considering that the largest organic food market in the EU is reflecting overall trends. For the last 1.5 year period, the price premium for organic wheat has decreased continuously. The average monthly price premiums for organic wheat for food were 120%,109%, and 80% in 2019, 2020, and 1H 2021, respectively. Similarly, the organic wheat price premium used for feed was 77% in 2019, 62% in 2020, and 48% in 1H 2021 compared to conventional wheat.

Nonetheless, the organic wheat price for 1H 2021 increased by 10% y-o-y. The recent fluctuations can be linked to supply excess in the market as farmers are selling last years' harvest right before the new harvest. As reflected in data, organic wheat prices fluctuate considerably more than conventional wheat prices; thus, the price premium obtained can substantially differentiate from farm to farm according to the competency management to predict the prices. AUGA has contracted approximately 83% of its harvest, and management believes organic wheat prices to grow; however, due to a majority of harvest contracted, the benefits from increased price will not be substantial.

Organic vs. Conventional wheat price (Germany market)

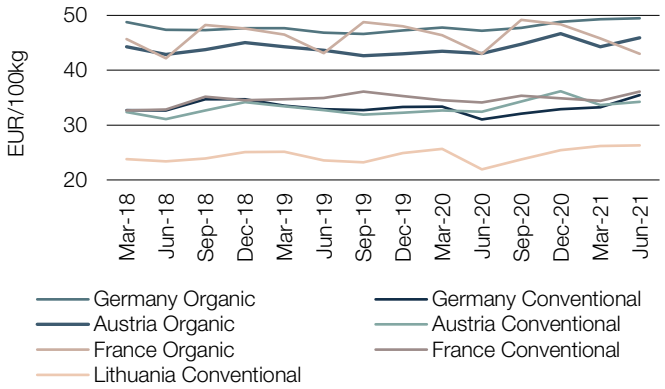


Source: https://www.ami-informiert.de/ami-maerkte , https://www.bmel-statistik.de/

Dairy Segment

According to statistics for Germany, France, and Austria, the price of organic milk (farm gate) has shown different levels of volatility over the last four years. In Germany, the biggest market for organic products in Europe, the price of organic milk has been steady and has not suffered rapid declines. However, in France, the price of organic milk has shown more rapid movements than its traditional counterpart; furthermore, as of June 2021, the gap between organic and conventional milk prices has reduced substantially. As of June 2021, the organic premium for milk was 19% in France, 34% in Austria, and 40% in Germany. AUGA has made an important step towards dairy segment profitability by entering the German market, where the price premium is most stable and highest on average.

Milk Prices



Source: CLAL

FMCG Segment

In 2011 spring, Shahidul Islam and Constantin Colonescu released research "Data on retail price differential between organic and conventional foods". The objective of this dataset was to find out retail price differences between organic and conventional food items. The retail prices data for pairs of conventional and organic food items in three supermarket chains (Save On Foods, Superstore, and Sobeys) in Edmonton, Alberta was collected for seven consecutive weeks.

Price data was organised into 17 different food categories. For our research purposes, we analysed three categories "Ready-to-eat Canned Food: Soups, broths, burritos, etc.", "Canned Fruits and Vegetables: Canned tomatoes, beans, corn, peas, etc.", and "Fresh Vegetables". By analysing the dataset, we concluded that organic ready to eat meals had a price premium of 109%; however, the ready to eat soups only had a premium of 40%. Regarding organic canned vegetables and fruits, the price premium compared to conventional food prices was 106%. Fresh vegetables like potatoes, onion, beets, carrots, and white mushrooms had a price premium of 31%.

EU Strategy Shaping the Sector

The European Green Deal sets out how to make Europe the first climate-neutral continent by 2050. It maps a new, sustainable and inclusive growth strategy to boost the economy, improve people's health and quality of life and care for nature. Farm to Fork (F2F) strategy, high priority component of Green Deal, seeks to transform the agriculture and food sector according to Green Deal's vision and work in close coherence with Biodiversity Strategy 2030 (although the F2F strategy cover aquaculture and forestry as well the report will concentrate on agriculture and food sector). The COVID-19 pandemic has underlined the importance of a robust and resilient food system. It has also made humanity acutely aware of the interrelations between our health, ecosystems, supply chains, consumption patterns, and planetary boundaries. The Farm to Fork Strategy is a new comprehensive approach that seeks to improve lifestyles, health, and the environment. The strategy was published on 20th May 2020 in the Communication "A Farm to Fork Strategy", an action plan of overall 27 legislative and non-legislative measures accompanying the strategy. Such measures will be taken from 2020 to 2024. A legislative proposal for a framework for a sustainable food system will be put forward before the end of 2023.

The strategy consists of three components for achieving its ultimate goal:

- Building the food chain that works for consumers, producers, climate, and the environment
- Enabling the transition
- Promoting the global transition

Within the first component, the F2F strategy is set to promote a circular bio-based economy, for example, bio-refineries that produce bio-fertilisers, protein feed, bioenergy, and bio-chemicals. Furthermore, farming practices that remove CO_2 from the atmosphere and contribute to the climate neutrality objective fall into F2F priorities. With respect to the circular economy, biogas that is produced from manure or sources like waste and residues is one of the offered solutions. F2F emphasises the promotion of organic farming due to its benefits to ecosystems as a consequence of the exclusion of pesticides and other chemicals and reduction of antimicrobial resistance as antibiotics are not used in organic livestock. All together, organic farming enhances food quality (healthier nutritious food), animal welfare and ecosystems. Furthermore, the European Commission will take action to reduce the overall use and risk of chemical pesticides by 50%, reduce overall EU sales of antimicrobials for farmed animals and in aquaculture by 50%, reduce the use of fertilisers by at least 20% and reach the objective of at least 25% of the EU's agricultural land under organic farming by 2030. Regarding the latter objective, some argue that it is a very ambitious estimate by the EU as, at this point, the share of agricultural land under organic farming for EU-27 is 8.5%. The new Common Agricultural policy will play an important part in this transition.

Although the EU's support for organic farming seems to be for a good cause, experts asserted that excessive support to the supply side and lack of demand could detriment the industry by plummeting the price of organic crops; thus, it is important to promote the demand side as much as possible. After such feedback, the EU included a plan for demand promotion. F2F has adopted two approaches to this, namely, building consumer trust and promoting sustainable food consumption.

In respect of building consumer trust, some of the EU planed actions are developing an EU Code of conduct for responsible business and marketing practices accompanied by a monitoring framework. The EU code of conduct will ensure that food price campaigns do not undermine citizens perception of the value of food and reduce packaging in line with the new Circular Economy Action Plan (CEAP).

The Commission also seeks to set up nutrient profiles to restrict the promotion (via nutrition or health claims) of foods high in fat, sugars, and salt. Furthermore, EU authorities will take action to scale up and promote sustainable and socially responsible production methods and circular business models in food processing and retail. The Commission will revise marketing standards to provide for the uptake and supply of sustainable agricultural products and to reinforce the role of sustainability criteria considering the possible impact of these standards on food loss and waste.

The respect of social rights is put in the light, which envisages that a European Pillar of Social Rights are respected, especially when it comes to precarious, seasonal, and undeclared workers. Moreover, the prevention of food fraud along the supply chain will be enhanced by cooperating with the Member States, Europol, and other bodies

to use EU data on traceability and alerts, propose stricter dissuasive measures, better import controls and examine the possibility to strengthen coordination and investigative capacities of the European Anti-Fraud Office (OLAF).

Regarding promoting sustainable food consumption and facilitating the shift to healthy, sustainable diets, the EU will empower consumers to be informed about healthy and sustainable food choices by proposing harmonised mandatory front-of-pack nutrition labelling. To improve the availability and price of sustainable food and to promote healthy and sustainable diets in institutional catering, the Commission will determine the best way of setting minimum mandatory criteria for sustainable food procurement. This will enable cities, regions, and public authorities to play their part by sourcing sustainable food for schools, hospitals and public institutions, and it will also boost sustainable farming systems, such as organic farming. The EU school scheme will be reviewed to enhance its contribution to sustainable food consumption and, in particular, to strengthen educational messages on the importance of healthy nutrition, sustainable food production, and the reduction of food waste.

Last but not least, the Commission will propose tax incentives (e.g. VAT rates) to drive the transition to a sustainable food system and encourage consumers to choose sustainable and healthy diets. The Commission's proposal on VAT rates (currently being discussed in the Council) could allow the Member States to make more targeted use of rates, for instance, to support organic fruit and vegetables. EU tax systems should also aim to ensure that the price of different foods reflects their real costs in terms of the use of finite natural resources, pollution, GHG emissions, and other environmental externalities.

At present, some examples are in place, strategic national or regional plans support organic land use and consumption of organic products. For example, Germany launched a program in 2017 to reach a 20% share of the organic area by 2030. On the consumption side, national plans usually target public procurement of organic products for consumption in public schools, kindergartens, hospitals, and residential homes. For example, in Copenhagen, 90% of meals served in public entities were organic, and in Sweden, the objective was set to reach a 60% share of organic in public sector consumption by 2030. Since 2015, Italian national law established a requirement for school canteens to source at least 15% of meat and 40% of other ingredients, such as fruit and vegetables, from certified organic producers. In 2018, Italy issued a ministerial decree, which awards golden or silver certification to canteens who use over 90% and 70% organic ingredients, respectively.

The efficiency of the listed examples can be supported by the fact that mentioned countries in the EU are leaders in the percentage of organic agricultural land and the value of the organic retail market. Although the countries listed in the examples lag behind the EU target of 25% organic agricultural land, the positive effect on such organic food promotion has been proven. This is a great benchmark for the EU and the sector to evaluate what action and to what extent have certain results on promoting organic farming.

Within the second component, the EU is allocating an additional EUR10bn which will be available through the EU's Horizon Europe research programme to support specific research and innovation in food, agriculture, rural development, and the bioeconomy. R&I can help develop and test solutions, overcome barriers, and uncover new market opportunities. A key area of research will relate to the microbiome, food from the oceans, urban food systems, as well as increasing the availability and sources of alternative proteins such as plant, microbial, marine and insect-based proteins and meat substitutes. A mission in the area of soil health and food will aim to develop solutions for restoring soil health and functions. To speed up innovation and accelerate knowledge transfer, the Commission will work with the Member States to strengthen the role of the European Innovation Partnership "Agricultural Productivity and Sustainability" in the Strategic Plans. New knowledge and innovations will also scale up agro-ecological approaches in primary production through a dedicated partnership on agro-ecology living laboratories. In addition, the European Regional Development Fund will invest, through smart specialisation, in innovation and collaboration along the food value chains. Through EU budget guarantees, the InvestEU Fund will foster investment in the agro-food sector by de-risking investments by European corporations. Besides pecuniary support, the EU will enable all actors in the food system to become sustainable by providing tailored advisory services on sustainable management and will enhance the data and knowledge sharing through various networks. Such R&I support is a positive sign for AUGA group, considering that besides agricultural and food company AUGA can also be considered as an agtech company with its innovative technology under development.

Environmental issues and food trade nowadays is at a global scale affecting us all together; thus, the third component of F2F strives for enabling the global transition towards sustainable and healthy food systems. This is sought to be achieved by the EU forming Green Alliances with all its partners. Respective EU policies, especially trade policy, should contribute to stimulating third countries to take upon supporting sustainable food systems. EU will ensure that the import goods are aligned with sustainability, social right, ingredient, and labelling requirements that are applied in a common market.

AUGA acknowledges the EU planed efforts for promoting sustainable food consumption and see that as a good sign for the organic agriculture sector. The EU's objective to reach at least 25% of the EU's agricultural land under organic farming by 2030 and incentives behind it will certainly bring more competition in the organic agriculture sector; however, it has to be kept in mind that AUGA has the experience, proven efficiency and a rather strong market position in organic agriculture; thus, the increased competition should not unsettle AUGA's further development. The increased market will bring more opportunities for growth, and AUGA might be able to leverage them. The increased competition will likely bring more opportunities to AUGA's new venture Auga Tech, which only sells machinery and spare parts dedicated to organic farming. Furthermore, recently announced development success on methane running tractor has huge potential to contribute to this segment. Considering the ideology of the EU, it seems inevitable that the agricultural sector will be shaped to employ only sustainable practices in long-term; thus, AUGA has taken the right path which will give competitive advantage in future if it stays to be innovative in its products and technology, and effective in its operations.

EU Subsidies for Organic Farming

The EU has acknowledged the value of organic farming for both the land and consumers. Under the 2014-2020 Common Agricultural Policy (CAP), organic farmers have been able to benefit from several support measures. In particular, organic farmers have had the right to receive more subsidies under agri-environment and animal welfare subsidies than conventional growers, especially regarding the maintenance and conversion of conventional farms to organic farms.

Organic farmers also receive higher subsidies under Rural Development than their conventional counterparts do, and organic producers qualify under the requirements for greening payments. Producer organisations of organic fruit and vegetables also benefit from increased co-financing rates through operational programmes. In general, organic farmers, therefore, tend to benefit from higher total EU subsidies.

In 2018, CAP support for organic conversion and maintenance (including national co-financing) in Lithuania was granted to 77% of the certified organic area at an average of EUR 197/ha/year compared to EU-27 EUR 213 /ha/year, which was granted to 64.3% of the certi-

fied area.

The current CAP (2014-2020) rules and measures (with some additional elements) will stand till 2023 due to the slow progress of negotiations, which started in 2018 - new CAP was expected for the period 2021-2027. Although the current CAP is supporting sustainable agriculture, the EU auditors reported that the current CAP has failed to reduce emissions. The EU's agriculture emissions, half of which come from livestock, have not decreased since 2010; consequently, the strategies and the new CAP that is supporting their implementation will put much greater emphasis on sustainable agriculture practices.

To promote F2F and Biodiversity strategy objectives for the agriculture sector, the CAP budget is set to be approximately EUR 387bn, around one-third of the EU's budget for 2021-2027. For the first time, the CAP will include social conditionality, meaning that CAP beneficiaries will have to respect elements of European social and labour law to receive CAP funds. As envisaged in the F2F strategy, support needs to be distributed to those who need it the most; consequently, member states have to distribute at least 10% of income support to smaller farms and a mandatory minimum of 3% of CAP income support (start-up aid) budget to young farmers (farmers up to 40). The reform will require countries to spend at least 25% of the budget for direct payments that will be allocated to eco-schemes that protect the environment. Eco-schemes include practices like precision agriculture, agro-ecology (including organic farming) or carbon farming, as well as animal welfare improvements. At least 35% of rural development funds will be allocated to agri-environment commitments, which promote environmental, climate, and animal welfare practices. All farmers payments would be tied to complying with environmental rules, such as setting aside 3% of arable land for areas where nature can thrive, with a possibility to receive support via eco-schemes to achieve 7%. Furthermore, the protection of wetlands and peatlands will be a high priority. In the fruit and vegetable sector, operational programmes will allocate at least 15% of their expenditure towards the environment (compared to 10% during the current programme period). 40% of the CAP budget will have to be climate-relevant and support the general commitment significantly to dedicate 10% of the EU's budget to biodiversity objectives by the end of the EU's multiannual financial framework (MFF) period (2021-2027).

As per AUGA's opinion, a positive trend for upcoming CAP compared to current CAP can be observed and expect the support likely to be substantially higher than currently, although a relatively small reduction of direct payments could potentially arise by Lithuanian government discussing the subsidy capping. It is still very unclear regarding the sentiment of government realizing that, thus we will not speculate on the certain effects by this.

The new CAP policy potentially could shift the profitability scales from conventional farming to organic farming or farming with integrated high standard sustainability practices. The contingency regarding the new CAP policy is that each member state sets a national strategic plan on fund spending; thus, the extent of CAP support for sustainable farming will differ from country to country, as EU rules only set the minimum requirements.

According to research by IFOAM Organics Europe, the European Union should dedicate 3 to 5 times the current amount of CAP budget dedicated to conversion and maintenance of organic farming from 2023 onwards. Depending on their potential national target, baseline, and payments rates, in some cases, Member States should dedicate ten times more national budget to organic support measures.

According to IFOAM, based on the current situation and scenario results for Lithuania, 15% of organic area by 2030 target is realistic and achievable but would require 2-3.5 times current CAP expenditure from 2023 onwards. If achieved, this would contribute 0.28% to the EU target of 25% by 2030.

Considering the recognition and credibility of IFOAM, the conclusion from research sets a great benchmark for the EU and national governments to realise how much CAP should contribute to achieving its own set targets. The IFOAM research conclusions on CAP is likely to be considered by the governments in national CAP Strategic Plans.

By comparing AUGA's strategy and ESG with Farm to Fork strategy, they are greatly in line with each other, which puts Auga in a favourable position, receiving a higher amount of funds from new CAP than current. Some of the common things that EU and AUGA strategies strive for are becoming emission-neutral, organic farming, circular economy, reduction of agriculture waste and utilise it for biogas production, use of biological fertilisers and delivering healthy and nutritious food to market. Considering that AUGA is still very dependent on subsidies, such CAP reform relieves the risk of reduction in subsidies and thus AUGA's profitability.

Biodiversity

Biodiversity or biological diversity means "The variability among living organisms from all sources including, inter alia, terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part: this includes diversity within species, between species, and of ecosystems." (Article 2 of the United Nations Convention on Biological Diversity). Biodiversity is also the basis for an abundance of natural benefits that the ecosystem provides for humans - ecosystem services. Such services include, inter alia, food, raw materials, purification of water, pollination, or recreational services. "Natural capital" are the assets that underpin these services - the stock of renewable and non-renewable natural resources (Capitals Coalition: Farming Guidance 2020).

Merely having a general idea of biodiversity benefits, it is evident that humans are fully dependent on ecosystem services and natural capital that it provides. For instance, more than two billion people rely on wood fuel to meet their primary energy needs, c.a. four billion people rely primarily on natural medicines for their health care, and about 70% of drugs used for cancer are natural or are synthetic products inspired by nature. Nature, through its ecological and evolutionary processes, sustains the quality of the air, freshwater, and soil on which humanity depends, distributes freshwater, regulates the climate, provides pollination and pest control, and reduces the impact of natural hazards. For example, more than 75% of global food crop types, including fruits and vegetables and some of the most important cash crops, such as coffee, cocoa, and almonds, rely on animal pollination (IPBES (2019): Global Assessment Report on Biodiversity and Ecosystem Services). Biodiversity ensures the stability and resilience of the ecosystem. It encompasses the interactions between species, how they survive, what they do, and the living conditions in which they exist. Considering that in nature, directly or indirectly, everything is interrelated, the consequence of damage is exponential.

Consequently, biodiversity is crucial for all businesses which exploit ecosystem services and inherently are dependent on biodiversity for their operations or supply chains. As per recent estimates, more than half of the world's GDP (approximately USD 44 trillion) is highly dependent on ecosystem services (World Economic Forum &PwC, 2020). For the first time in history, World Economic Forum, in its Global Risk Report 2020, identified biodiversity among the top-five risks and in its 2021 report the environmental risks (climate action failure, biodiversity loss, extreme weather, natural resource crisis and human environmental damage) dominate on the likelihood and impact scale.

In 40 years, there has been a loss of 60% of the wildlife population due to human activities (Living Planet Report, 2018: Aiming higher). The failure to address biodiversity loss cost USD 4-20 trillion per year in ecosystem services globally between 1997 and 2011 (OECD 2019: Biodiversity: Finance and the Economic and Business Case for Action). According to current trends, the cost of biodiversity loss is becoming more expensive. However, conserving marine stocks could increase the annual profits of the seafood industry by more than EUR 49 billion, while protecting coastal wetlands could save the insurance industry around EUR 50 billion annually by reducing flood damage losses. The overall benefit/cost ratio of an effective global programme for the conservation of remaining wild nature worldwide is estimated to be at least 100 to 1 (European Commission, Document 52020DC0380).

The sectors which are exploiting ecosystem services the most and having an impact on them are the ones that are most dependent on them, for instance, agriculture, forestry, fishing, manufacturing, or energy sector (Based on GBS-BIA, CGF, and ENCORE). The main

Source: World Economic Forum

pressures of biodiversity loss are changes in land/water/sea use, exploitation of resources, climate change, pollution, and invasion of species & others. These drivers have underlying causes or indirect causes, which are in turn underpinned by societal values and behaviours that include production and consumption patterns, human population dynamics and trends, trade, technological innovations, and governance. In the past 50 years, the human population has doubled, the global economy has grown nearly fourfold, and global trade has grown tenfold, leading to an increase in demand for food, energy, and materials (IPBES 2019: Global Assessment Report on Biodiversity and Ecosystem Services).

Full transition to sustainable lifestyles and businesses is not so easy as one might think as we are still dependent on unsustainable energy, goods, and services that cannot be wiped out in short-term; otherwise, consequences would be high unemployment, hunger, power shortage and other shortage of things that are essential necessities. On the other hand, if we do not take immediate action towards sustainability, the consequences will be disastrous. A balance between urgent action and transitional consequences must be found. The action towards sustainability is in everyone's interest as we all are stakeholders to nature, and in order to achieve significant results, the contribution must come from all sides, namely, policymakers, businesses, investors, and consumers.

Biodiversity Policy

As scientists ring the bell for action, policymakers are becoming increasingly active with policies that seek to bring biodiversity back in balance. As discussed, biodiversity is affected by many factors; thus, some policies already in place do contribute to biodiversity loss halting and restoration (e.g., The Paris Agreement concerning climate change); however, in this sub-section, most directly targeted biodiversity policies are discussed.

"Decade of action" - Convention on Biological Diversity

Biological diversity as a sustainability factor has been acknowledged globally by policymakers a long time back. In 1992 Rio Earth summit Convention on Biological Diversity (CBD) was opened for signatures. Today CBD has been ratified by 196 nations (including all EU member states) and thus can be listed as one of the widely accepted conventions. There are three main objectives raised: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of benefits arising from genetic resources.

Till present, CBD achievements are rather unsuccessful as the biodiversity has continued to deteriorate from the point of CBD adoption. Although strategic objectives have been supplemented and improved every decade based upon new knowledge and experience gained, they haven't really been executed at any point. For instance, during the United Nations Decade on Biodiversity 2011-2020, out of 20 Aichi Biodiversity Targets, none were achieved; however, six were partly achieved. The Aichi Biodiversity Targets are reflected directly in many of the targets within the Sustainable Development Goals (SDGs) but also underpins a much wider set of goals. The discussed reasons for failure to achieve set targets are the lack of reporting and enforcement as well as lack of motivation because financial interest overrides environmental interests. This constitutes that society still has a lack of knowledge about biodiversity benefits in the long term.

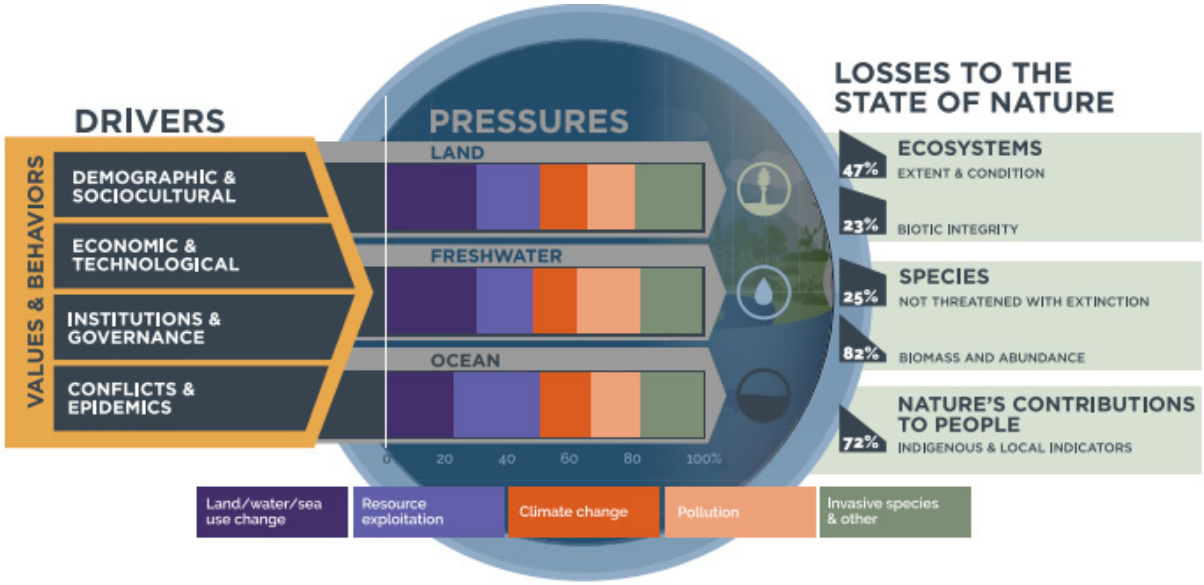
Due to the lack of biodiversity conservation and restoration, the urgency of proper action is critical. The Secretariat of the UN Convention on Biological Diversity has released the first draft of a new global biodiversity framework to guide actions worldwide through 2030. It aims to ensure progress is monitored in a transparent and accountable manner with adequate stocktaking exercises to ensure that, by 2030, the world is on a path to reach the 2050 Vision for Biodiversity. The framework comprises four main goals to be reached till 2050:

A. The integrity of all ecosystems is enhanced, with an increase of at least 15% in the area, connectivity and integrity of natural ecosystems, supporting healthy and resilient populations of all species, the rate of extinctions has been reduced at least tenfold, and the risk of species extinctions across all taxonomic and functional groups, is halved, and genetic diversity of wild and domesticated species is safeguarded, with at least 90% of genetic diversity within all species maintained.

B. Nature's contributions to people are valued, maintained or enhanced through conservation and sustainable use, supporting the global development agenda for the benefit of all.

C. The benefits from the utilisation of genetic resources are shared fairly and equitably, with a substantial increase in both monetary and non-monetary benefits shared, including for the conserva-

Drivers, pressures, and states of nature loss, adapted from the IPBES Global Assessment, 2019



Source: SBTN Initial Guidance for Business, 2020

tion and sustainable use of biodiversity.

D. The gap between available financial and other means of implementation, and those necessary to achieve the 2050 Vision, is closed.

Additional ten milestones (assessed in 2030) are set that will serve as a guide for 2050 goal achievement. Furthermore, 21 action targets are set, which stipulate more particular, measurable objectives that lead to the achievement of milestones. Considering the barriers that failed the previous decade targets, CBD is taking a stricter policy on measurability, transparency, and reporting than before.

EU Biodiversity Strategy

On 20th May 2020, the European Commission decided on a new EU Biodiversity Strategy, which is a key component of the EU Green Deal, EU Recovery Plan and works very closely with the Farm to Fork strategy. While preparing its strategy, the European Commission drew attention to scientific evidence regarding biodiversity loss, especially the landmark IPBES 2019 report. Considering that biodiversity loss is a global crisis, the EU is negotiating its ambitious goals in the Conference of Parties of the CBD.

EU policy framework is adopting an integrated and whole-to-society approach. The European Commission will put co-responsibility on businesses by putting forward a new initiative on sustainable corporate governance in 2021. This legislative proposal will address human rights and environmental duty of care and due diligence across economic value chains. In addition, the Commission has launched a review of the reporting obligations of businesses under the Non-Financial Reporting Directive, with a view to improving the quality and scope of non-financial disclosures, including on environmental aspects such as biodiversity. Council recommendation on encouraging cooperation in education for environmental sustainability in 2021 will promote the integration of biodiversity and ecosystems into school higher education and professional training. Research and innovation will be promoted by the Horizon Europe Programme. The transformative change will require a great amount of public and private investments; a significant proportion of the 30% of the EU budget dedicated to climate action will be invested in biodiversity and nature-based solutions through various programmes. The key element here will be the enforcement of desired targets. The European Commission will put in place, in 2021, an enhanced, cooperation-based European biodiversity governance framework. As part of this new framework, the Commission will put in place a monitoring and review mechanism. This will include a clear set of agreed indicators to enable regular progress assessments to be made and corrective measures introduced as required.

Source: Ecogain biodiversity Index, 2021

EU Taxonomy

On 21st April 2021, the European Commission adopted the delegated act containing the technical review criteria for the EU's climate economy and a directive on corporate sustainability reporting. The Taxonomy Regulation imposes measurement systems and reporting obligations on corporations, financial products, and governmental bodies. Six environmental objectives are defined by the Taxonomy:

5. Climate change mitigation
6. Climate change adaptation
7. The sustainable use and protection of water and marine resources
8. The transition to a circular economy
9. Pollution prevention and control
10. The protection and restoration of biodiversity and ecosystems

Furthermore, economic activity, in order to qualify as environmentally sustainable, must comply with four overarching conditions:

1. Contributes substantially to one or more of the environmental objectives
2. Does not significantly harm any of the environmental objectives
3. Is carried out in compliance with the minimum safeguards (economic activity alignment with other international guidelines and principles, e.g. OECD Guidelines for Multinational Enterprises or UN Guiding Principles on Business and Human Rights)
4. Complies with technical screening criteria

This will guide investors in transitioning their capital to a sustainable economy. The system will also contribute to the elimination of "greenwashing" and will distinguish the level of environmental damage, neutrality or contribution. The subjects of regulation will have to adapt their reporting till the end of 2021 since it comes into force on 1st January 2022 when the reporting period starts.

Non-Financial Reporting Directive and Its Successor

Non-Financial Reporting Directive (NFRD) is an integral part of the EU Taxonomy Regulation; namely, it lays out part of the reporting requirements for the Taxonomy Regulation. On 21st April 2021, the European Commission proposed a new directive for sustainability reporting, the Corporate Sustainability Reporting Directive (CSRD), which aims to replace NFRD. The new directive will encompass more detailed reporting requirements and will widen the scope of reporting subjects (companies); this also includes reporting on biodiversity and ecosystems. Subjects for NFRD are large undertakings which are public-interest entities exceeding on their balance sheet dates the criterion of the average number of 500 employees during the financial year; however, the succeeding regulation seeks to include SMEs with securities listed on regulated markets, but with less reporting requirements. Furthermore, small companies will not be affected. The draft is anticipated to be ready in mid-2022 and implemented by the end of 2022; thus, companies would apply the standards for the first time to reports published in 2024, covering the financial year 2023.

Biodiversity and Finance Sector

As concluded in previous sections, businesses are dependent and impacted by biodiversity, economic services, and natural capital severely, and so is the finance sector. In terms of financial risks, the loss of biodiversity above all should be considered as a systematic risk due to wide dependency. Furthermore, various transitional, physical, and litigation risks are present and will keep evolving for business-as-usual practices.

However, reversing the capital from business-as-usual to a sustainable economy, financial institutions can create opportunities.

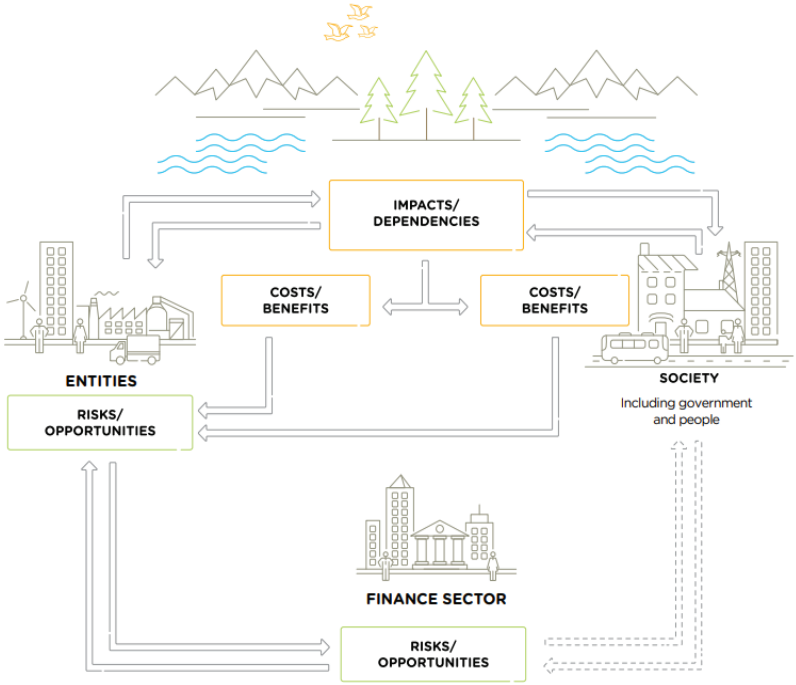
Although awareness for biodiversity has increased, it still constitutes a very small proportion of sustainable investments. The concept itself in the investors' community is rather cloudy and thus is a risky proposition. According to the Principles for Responsible Investment Association (PRI), biodiversity and climate change in PRI signatory reporting were 209 and 1404, respectively. Besides the unfamiliarity of the biodiversity concept, the lack of measurability incorporated into companies reporting makes the investment purpose rather unclear. Nevertheless, although not specifically concentrated on biodiversity, other sustainability objectives can contribute to biodiversity directly or indirectly.

The trend towards fixed-income investments (bonds) that are in direct or indirect ways conserving biodiversity is increasing. The EU green bond market has expanded remarkably over the last few years. In 2020, around EUR 236 billion of green bonds were issued globally (+57% compared to 2018). Green bond fund assets under management are also growing rapidly, though they only represent between 0.1% and 0.2% of total bond fund assets under management. (CEPS: Greening the European Green Bond market). Although green and blue bonds often are not directly related to biodiversity, they are likely to include biodiversity-related issue solutions. Biodiversity degradation can expose an entity or country to credit risk downgrade, depending on how much the country's economy or

Classification of Biodiversity-Related Financial Risk

	Credit Risk	Market Risk	Operational Risk
Transitional Risk	Investee suffers substantial losses due to sanctions, damages or increased taxes stemming from its negative impact on biodiversity	Long-term price increases as a result of biodiversity change	Image loss resulting from failure to switch to biodiversity management
Physical Risk	Revaluation of debt-servicing capacity and collatera	Rating downgrades and share price losses after biodiversity loss	Biodiversity loss affects balance sheet
Litigation Risk	• Litigation as pertaining to biodiversity loss and breach of the under-lying legal frameworks • New regulatory rules impose limitations on investing in activities with an impact on biodiversity • Damages due to false reporting to biodiversity risks • Damages due to greenwashing		
Systemic Risk	Economy can no longer be insured at reasonable cost	Market-threatening effect from biodiversity loss in an entire region	Reputational losses for entire industries/entire markets

Source: PWC



Source: Natural Capital Coalition et al. 2018

company´s operations are dependent on ecosystem services.

A very promising step from the finance sector is Finance for Biodiversity Pledge. On 25th September 2020, a group of 26 financial institutions from around the globe launched the Finance for Biodiversity Pledge. They called on global leaders and committed to protect and restore biodiversity through their finance activities and investments in the run-up to the Conference of the Parties (COP 15) to the Convention on Biological Diversity (CBD) in 2021. The number of Pledge signatories has grown since then and currently stands at 55. Signatories hold assets under management of c.a. EUR 9 trillion. The main actions to be taken are:

- Collaboration and knowledge sharing regarding assessment methodologies, biodiversity-related metrics, targets and financing approaches for positive impact with other financial institutions and policymakers. The sharing of knowledge and collaboration will take place through platforms like EU Finance@Biodiversity Community, UN PRI Collaboration Platform, Coalition for Private Investment in Conservation (CPIC) and others.
- Engaging with companies to reduce their negative and increase positive impacts on biodiversity. 5-step investment strategy and ESG solutions are set:
    1. Exclusion - When companies/countries do not adhere to responsible investment criteria
    2. Voting at AGMs and EGMs of companies
    3. Engagement - Active ownership by stimulating responsible business conduct by entering into a dialogue with a company on violations made
    4. ESG Integration - ESG-criteria in the portfolio management process
    5. Impact - Investing in assets where, next to a financial, the aim is to achieve a measurable positive social and environmental return.
- Assessing the impact of financing activities and investments for significant positive and negative impacts on biodiversity and identifying drivers of its loss. The assessment will be conducted through various tools (e.g. Global Biodiversity Score, Biodiversity Footprint Financial Institutions (BFFI), Species Threat Abatement and Recovery (STAR) Metric and other), the tools will be assessed as well.
- "The Pledge" will set and disclose targets based on the best available science to increase significant positive and reduce a significant negative impact on biodiversity. The targets will be aligned with science-based recommendations and policies that exist (e.g. CBD, EU Biodiversity Strategy, Science-based targets for biodiversity and others).
- One of the main principles will be reporting annually and being transparent about the positive and negative contribution to global biodiversity goals linked to financing activities and investments in signatories portfolios. Considering the recent trends by policymakers in drafting reporting standards on biodiversity, the reporting will be mandatory and based on the methodology stipulated in the law.

Considering the combined worth of The Finance for Biodiversity Pledge signatories and constantly joining members, this is a significant contribution to policymaker efforts for biodiversity. The consequence of this is that companies will be pressured not only from the legislative side but in order to secure financing, companies will have to have clear and measured sustainability goals in place (especially biodiversity-related) even in cases when not required by law. Considering that financial institutions are financing their own sector as well, the same rules will apply for other financial institutions outside "The Pledge"; consequently, it creates a chain reaction throughout the financial sector.

Measurability Incentives

The lack of measurability of impact on biodiversity has held back companies to incorporate biodiversity goals in their ESG strategies, made it difficult for investors to find attractive biodiversity-related investments, and created issues for countries to properly follow up their progress of biodiversity-related target execution. With all the tension around biodiversity at present, policymakers and private en-

tities are increasingly developing methodologies for measuring the impact on biodiversity. Some of the most recognised examples are:

- The Global Biodiversity Score (GBS) - A subsidiary of Caisse de Depots, CDC Biodiversité has developed a method for calculating the biodiversity footprint of its economic activities. The main approach of the GBS is to link data on economic activity to pressures on biodiversity and to translate these pressures into biodiversity impacts. A hybrid approach is used to take advantage of data available at each step of the assessment. BFAs use company-specific data on purchases or related to pressures (such as land-use changes or greenhouse gas emissions).
- Ecogain Biodiversity Index (EBI) - EBI explores how the largest businesses in Sweden, and the rest of the Nordic and Baltic countries, report and act on biodiversity. The foundation of the Ecogain Biodiversity Index (EBI) is a number of evaluation questions used for each company's sustainability report. Questions have been adapted to be rather in line with the latest science and thus also in line with the framework Science Based Targets for Nature (SBTN). Evaluation questions explore the identification, prioritisation, goal setting, action, and reporting on biodiversity in respective companies.
- Biodiversity Footprint for Financials (BFFI) - BFFI was developed by consultants CREM and PRé on behalf of ASN Bank, which aims to achieve a long-term goal of having a net positive effect on biodiversity. BFFI uses a similar approach as GBS. The goal is to identify which positions in the portfolio are linked to biodiversity loss.
- EU Taxonomy – Companies will provide the most insight by showing their degree of taxonomy alignment from the perspective of both turnover and expenditure. Turnover will illustrate the extent to which a company's undertakings are already aligned (current situation). Expenditure will show how much a business is spending to become more aligned. It is certain that large entities that are under EU jurisdiction will be obliged to use the EU Taxonomy methodology.

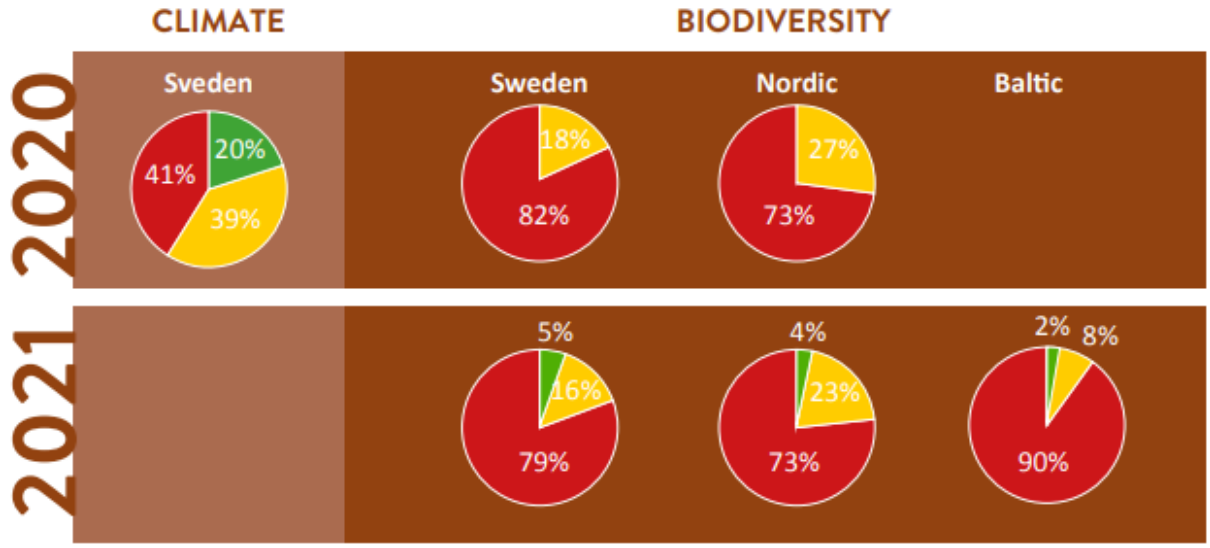
Businesses for Biodiversity

Overall, businesses have not been incorporating effective practices in their operations that contribute to biodiversity. In order to see the situation in terms of hard data, we look at Ecogain Biodiversity Index 2021 data for Sweden, the Nordic and Baltic countries.

It categorises subject companies into three groups, namely, green light, yellow light, and red light. The green light companies are with a timed goal of "No Net Loss (NNL) or Biodiversity Net Gain (BNG) by 2030 (science-based goals)". Yellow light companies are with some form of goal or policy for biodiversity but which does not meet the criteria for a green light, and red light companies are those which lack goals or policies for biodiversity.

The Ecogain Index 2021, in a limited way (due to limited geographic area analysis), supports the previous conclusion regarding the lack of pro-biodiversity practices in business operations in general and the fact that climate change issue is more recognised, although climate change factor is one of the contributors to loss of biodiversity. While the situation has slightly improved y-o-y in the Nordic area, the proportions are still rather distressing in order to achieve set goals by CBD and the EU. In the Baltic region, the status quo is even weaker. In order to assess the business contribution to biodiversity at the global level, Aichi Biodiversity Targets 2011-2020 can be assessed. Considering "Strategic Goal B: Reduce the direct pressures on biodiversity and promote sustainable use", which relate more directly to business practices, has poor progress. Out of six targets, only one is partially achieved; out of 18 specific elements, one is on track to be achieved, ten show progress, three have shown no change, three are moving away, and one is unknown (Global Biodiversity Outlook 5).

The agriculture sector is one of the most substantial contributors to biodiversity loss, and half of all habitable land today is used for agriculture and livestock (World Economic Forum Nature Economy Report 2020). The major driver for biodiversity loss in agriculture is the expansion of agriculture or use of land (IPBES (2019): Global Assessment Report on Biodiversity and Ecosystem Services), considering that conventional farming is dominating practice, the land is processed with pesticides and synthetic fertilisers which contribute to biodiversity loss. Monocultures are replacing wetlands and forests, thus reducing genetic biodiversity and destroying habitat for many living organisms. At present, the food supply chain contributes 19-29% of global greenhouse gas (GHG) emissions, the majority of which, for most supply chains, occurs at the farm level (80-90%). In the EU, 10% of GHG emissions are attributed to agriculture (Taxonomy Report: Technical Annex 2020). GBO-5 Agriculture Highlights (Aichi targets: 3,4,7,8,13,14,18) show that agriculture practices globally have not been in line with biodiversity targets for the past decade. None of the targets has been achieved even partially; furthermore, ecosystem service restoration has not shown any change. However, a positive trend in the EU can be observed, i.e. the organic area in the EU has increased by 70 % in the last ten years (EU Agricultural



Source: Ecogain Index 2021

Markets Briefs No 13, March 2019), reaching the total agricultural area in the EU of 8.5% (Eurostat "Organic farming statistics"). Organic farming eliminates many factors that deteriorate biodiversity loss, like the use of pesticides and synthetic fertilisers. EU Biodiversity strategy, together with Farm to Fork strategy, seeks to increase organic farming to 25% of total agricultural area and substantially cut conventional farming practices that contribute to biodiversity loss; furthermore, public and private financing is gradually shifting to sustainable practices.

In order to revert rapidly increasing risks into opportunities, companies need to change business practices and models that contribute to biodiversity; otherwise, nature will reach such exploitation and deterioration level, after which it won't be able to restore itself. The starting point for halting biodiversity loss can be the UN Sustainable Goal Development integration in business practices, especially 11 (Sustainable cities and communities), 13 (Climate action), 14 (Life below water) and 15 (Life on land), which are directly related to biodiversity. It is a complex process to understand the business impacts and dependencies on nature and to integrate the sustainable practices cost-effectively and having measurability on them. This is important because ill-considered action most likely will not solve the alarming problem, risks won't turn to opportunities, and expenditure will be without meaningful results. Science-Based Target Network (SBTN) sets good practice guidelines for biodiversity policy integration.

Action Framework

Source: Science-based Targets for Nature Initial Guidance for Business

Action Framework

Source: Science-based Targets for Nature Initial Guidance for Business

Poor incorporation of biodiversity goals can lead to waste of resources, unintentional "greenwashing", failure to reduce risks or turn them into opportunities. While it is still considered a good practice for a company to have some sustainability or specifically biodiversity policy in place, the stakeholders are becoming more demanding for real results due to unchanging biodiversity and ecosystem service loss; furthermore, it is not enough to merely mention the efforts, real measured results are being requested. So having a sustainability goal towards biodiversity is rather good; however, in order to qualify as a sustainable business in eyes of stakeholders, proper actions have to be taken and tools that can measure it have to be in place.

AUGA group for Biodiversity

In comparison to conventional, organic farming inherently protects the environment and promotes biodiversity. This is linked to the difference in farming practices, for instance, elimination of pesticides which wipe out everything except the crop. Soil erosion is avoided by using natural fertilisers and planting legumes in crop rotation schemes; furthermore, the use of legumes for fertilisation avoids the risk of water pollution.

AUGA's business model is reaching even further regarding sustainable farming by incorporating a closed-loop (circular economy) agricultural model. Crops are used for cattle feed, and straw goes to mushroom compost. Livestock manure is used to fertilise crops and make compost. Later, it also becomes fertiliser for crops. In order to understand the agriculture closed-loop (circular economy) business model and its benefits for biodiversity, various factors should be considered. In the case of the linear economy, the waste or by-products would decompose, releasing CO_2 and methane without any contribution to the growth of crops, mushrooms or cattle. New order of fertilisers and feed would have to be placed, thus having upstream pressure on biodiversity. By not employing ultimate utilisation of resources, companies entail overproduction and energy overconsumption which reflects in unnecessary impact on biodiversity (e.g. use of land, exploitation of resources, and extra pollution from fossil fuels). In a circular economy, especially closed-loop, resource and energy consumption is optimised, thus reducing the upstream impacts on biodiversity. The use of land is maximised to its core by utilising all of its production. AUGA is employing min-till technology, which preserves biodiversity and reduces fuel consumption, thus reducing greenhouse gas emissions, as well as contributing to carbon sequestration. Furthermore, the recent success in developing the world's first hybrid biomethane and electric tractor for professional farm use (AUGA M1) will reinforce the closed-loop agriculture model. The expected benefit from hybrid biomethane/electric powered tractors is the reduction of dependency on fossil energy by 50% by 2025; thus, it will substantially reduce GHG emissions. Looking further into the R&D pipeline, another project with a goal to reduce pollution from cattle is the specialised feed technology, which will reduce methane emissions from ruminants - 50% less emissions per one ton of cow's milk is planned to be achieved.

AUGA is also a member of the United Nations Sustainable Development Goals (SDG) Global Compact initiative. The Group contributes to 7 selected SDG goals with two goals directly related to biodiversity well-being (13 Climate action and 15 Life on land) and two indirectly related (12 responsible consumption and production, 9 Industry, innovation and infrastructure).

Considering the EU agricultural sector, only 8.5% of agricultural land is devoted to organic farming; thus, a majority of the sector is employing practices that have a high impact on biodiversity loss. AUGA delivers more than organic farming in respect of biodiversity promotion, i.e. it has integrated a closed loop business model and has developed groundbreaking technology that will substantially contribute to emissions reduction, waste management, less resource exploitation and most likely make Auga group climate neutral by 2030. The

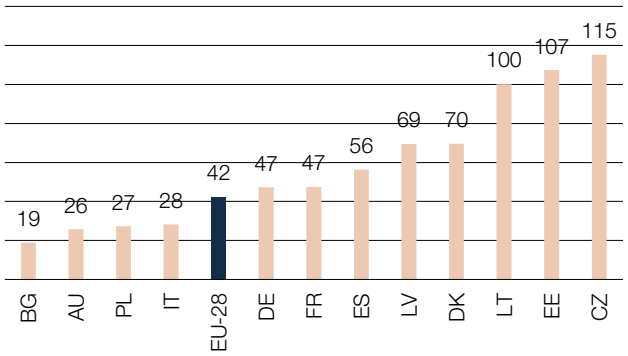
main concerns to biodiversity are land-use change, resource exploitation, climate change, pollution and invasive species, and AUGA is tackling each one of them.

Before considering AUGA as a biodiversity leader in agriculture, it has to be kept in mind that the AUGA's strategy will be focused on climate change which is rather obvious considering that environmental sustainability strategy is devoted to becoming climate neutral by 2030. However, by reversing climate change, which is one of the main pressures on biodiversity, AUGA is still directly contributing to it besides other things.

With the soft data dominating over hard data for business contribution to biodiversity, it is hard to give precise evaluation where AUGA stands in the agriculture sector as a biodiversity promoting business. However, considering the proportion of the EU organic farming land area in the sector and AUGA's far-reaching sustainable business model plus recent R&D success and innovations under development, it is reasonable to believe that the Group is one of the biodiversity leaders in the agriculture sector within Europe.

Furthermore, considering the fragmentation of farms in the EU, especially in member states where organic farming is at the highest rates, the repetition of AUGA farming scale would be extremely hard to replicate due to the high amount of investment necessary and barriers to possess farmland. Small farmers are not willing to give away their farmland where they conduct small scale farming as, usually, it is the only source of "bread" available to them. However, SME farms have been creating and involved in cooperatives for a long time, combining resources for economies of scale, commodity price negotiation power, and to make common purchases of machinery or spending on R&D. For example, in 2017 in France organic agricultural cooperatives produced almost 90% of organic pork, 78% of organic grain, 36% of organic milk, and 25% of organic vegetables and fruits. Thus, in respect of cooperatives, the repetition of such scale organic farming is possible; however, establishing such a vertically integrated business model within one company possess many major barriers.

Average ha per Organic Farm, 2019



Source: IFOAM

Far-reaching sustainability practices that significantly contribute to biodiversity, put AUGA as an attractive investment prospect for investors. Considering the latest trends in the policy and finance sector, it is not only an attractive investment for impact investors but generally for every investor due to risks associated with business-as-usual.

Starting from 2021, AUGA group will include a more detailed report on biodiversity preservation activities, formulate its future biodiversity targets and strategy to achieve them in the annual Sustainability Report.

Following the current practices, AUGA has initiated requests for research with local universities. The main objective is to make the Group's biodiversity preservation and enhancement efforts measurable and quantifiable and to develop recommendations for improvement.

Last but not least, the Group considers reviewing its Environmental Policy and adding more explicit biodiversity commitments.

AUGA M1 Tractor

On 29th September 2021, AUGA announced that it has developed the world's first hybrid biomethane and electric tractor for professional farm use – AUGA M1. This is the Group's first step towards offering technological solutions that will help mitigate pollution in the food supply chain, from field to table and allow food to be produced at no cost to nature. (https://www.youtube.com/watch?v=YkPhJRdXDOs)

The awareness of the need for such a solution originated three years ago when AUGA first calculated its carbon emissions and saw that as much as 30% of them are constituted by the use of fossil fuels on farms. Considering that there was no solution available, the Group decided to take the lead in developing a technology that substantially contributes to the reduction of pollution throughout the food value chain.

According to the CEO of AUGA, the choice of biomethane as an alternative fuel was not accidental - it is one of the greenest types of biofuels. Methane, collected from livestock waste and converted to biomethane, offsets more emissions per unit of energy in its production and use cycle than it emits.

The AUGA M1 tractor distinguishes by solving the problem that other tractors in the market could not, namely, most of the biomethane-powered tractors are able to operate for only around 4 hours because the gas cylinders do not physically fit into the tractor structure. However, due to the specifics of farming, the need for farmers to conduct sowing and harvesting for long hours is crucial.

AUGA's patented design allows the tractor to accommodate larger biomethane gas cylinders. The AUGA M1 tractor uses a hybrid biomethane-electric fuel system. When the tractor is running, an internal combustion engine powered by biomethane generates energy and transmits it directly to the electric motors that spin the wheels.

When operating under normal conditions that do not require high power, the tractor stores the generated energy reserve in the batteries. AUGA's new technology does not waste energy in low load conditions, uses a relatively small but efficient motor, and is able to extract very high power when needed. AUGA M1 tractor can operate for about 12 hours continuously. Furthermore, the refuelling method for AUGA M1 can be considered as a huge competitive advantage comparing to other biomethane tractors in the market, namely, considering the limited biomethane refuelling infrastructure, the tractor can continue to run 12 hours with extra tank while the other is refuelled in distance. Other existing tractors in the market would require either truck caring biomethane on-site or to travel rather long distance to refuelling destination. AUGA solution saves cost and time which is vital in time of sowing and harvest.

The mass-scale production of tractors is expected to begin next year in Q3 of 2022; furthermore, it is expected to complete the biomethane production infrastructure during that time as well. The Group will outsource the production of tractor parts but will have an in-house assembly line. As indicated by AUGA, the outsourcing partner for the production of tractor parts will be JSC ROKIŠKIO MAŠINŲ GAMYKLA. Currently, the Group plans to rent tractors to other farms, which is a common practice, through AUGA tech centre, which provides sale, supply of spare parts, and consulting and technical services for organic farming machinery of other brands. Last but not least, tractors will be used for in-house operations that will support the target of carbon-neutral farming by 2030 and reinforce the circular economy within the Group.

Considering that AUGA M1 hasn't been tested in the market and mass-scale manufacturing is not yet initiated, there are several risks surrounding the manufacturing and sales/renting of AUGA M1.

There have been no independent expert tests for the tractor or any general reviews from the sector participants; thus, without independent empirical data, the costs, efficiency, operability, and durability of the tractor is still rather unclear.

Considering that the Group will have very first experience in tractor manufacturing, it implies increased operational risks, for instance, managing the outsourced manufacturers and replacing the outsourced manufacturers in case if one or more fail to deliver. As well the efficiency of the in-house assembly line could suffer in the beginning while AUGA will understand the best solution or system for it.

However, the credibility of the success of AUGA M1 is supported by the insider share purchase on 29th September (outside a trading venue) by Baltic Champs Group UAB, solely owned by Kęstutis Juščius (CEO of the Company).

The stock market also showed positive sentiment after the announcement. The price of the Company´s shares increased by 11.04% on 30th September.

Alternatives in the market

Considering competition, there are very few agriculture tractors available in the market with truly high sustainability standards that pursue EU Green Deal´s vision. That said, the main sustainability emphasis in the market is put on engine efficiency and Selective Catalytic Reduction (SCR). While that may relatively reduce emissions from conventional tractors, it still burns the same conventional fuel that has a major environmental impact in the process of obtaining and producing it. High sustainability standards require tractors to use alternative fuels like biodiesel, electricity, or biogas.

At this point, the most widely used tractors that run on alternative fuels are tractors that can be biodiesel-powered. AGCO, which owns several widely used tractor brands, have implemented engines that can run on 100% biodiesel, or well-known John Deere that also has engines that accept biodiesel as a fuel.

However, there are more environmentally friendly alternatives available, like biogas and electricity. John Deere is currently developing tractors that drive on electricity; although the first prototype came out in 2016, the tractors still have not been made available to the market. Furthermore, the major flaw of John Deere's electric tractor is the 4-hour running time before charging; thus, it is not suitable for intensive harvesting but more for in-gate operations. While the battery efficiency will not be enhanced, the electric tractors won´t have essential applications in farming. However, John Deere is also developing autonomous driving, on-cable electric field tractor that might solve the running time issue, but the infrastructure factor could be a burden.

Tractors using biogas as fuel have been in the market for about a decade; however, none of them has been successful due to the lack of biogas infrastructure available and the incapability of long working hours. The fuel infrastructure availability is substantial as the New Holland hydrogen-powered NH2 didn't get traction in the market due to a lack of hydrogen fueling infrastructure. The newest development, except AUGA M1, is the New Holland T6 Methane which has been crowned as "Sustainable Tractor of the Year 2022", the award decided by the Tractor of the Year jury, at the EIMA exhibition. With 453 litres of gas capacity, which equates to 79kgs, the tractor holds sufficient fuel for around 8 hours of road haulage or PTO work using maximum boosted power, rising to 14 hours for operating something like a cattle feeder. However, experts don't see the T6.180 Methane Power being used as a heavy tillage machine.

Considering the available alternatives in the market, the conclusion is that there is no exact alternative for AUGA M1 but biodiesel tractors. Biomethane is much more sustainable than biodiesels comparing the gCO_2e/MJ (Biodiesel – avg. 38.4 gCO_2e/MJ, Biomethane from animal manure – avg. (-310) gCO_2e/MJ and from food waste (-10)

gCO_2e/MJ). Comparing the closest rival New Holland T6 Biomethane, these tractors really do not compete, considering that AUGA M1 is a very powerful tractor with vast dimensions which application is meant for heavy equipment on the fields while New Holland has much better application for in-gate use.

Thus, currently, AUGA M1 can be crowned as a sustainability leader in the farm use tractor segment for heavy equipment operations. It is a question of how long it will take for other long-established and innovative tractor manufacturers to come up with a competing alternative. However, AUGA is likely to have a first-mover advantage.

Market size

Considering the lack of alternatives in the market, we have to look for the potential on a global scale. According to Mordor Intelligence, the global market size for agricultural tractors in 2020 was valued at USD 60.5bn, if we convert the amount in Euros, then the figure is EUR 53.5bn (exchange rate USD/EUR 0.88 at 5th December 2021). Considering that the tractor market consists of many tractor categories meant for different uses, we consider tractors starting from at least 271HP that would be compatible with AUGA M1 applications. In 2020 the revenue share for tractors starting from 271HP and above was 9%, thus EUR 4.8bn of yearly revenues for this segment.

Due to many unknown factors, we could only make a wild guess what market share and how quickly the Group could take starting from the production in the second half of 2022. In the next few years, farmers will seek more sustainable solutions in their operations. Furthermore, although the lack of fuelling infrastructure was mentioned as one of the major limitations of alternative fuel tractors, according to Green Deal's Smart and Sustainable Mobility Strategy, the implementation of alternative fuels is starting to become a priority.

Financials

Before considering the financial part of Auga operations, it is important to mention that the recent announcement of AUGA M1 tractor is not considered in the future performance due to many unknown factors, like investments and clear growth strategy. However, the next steps of AUGA regarding the tractor manufacturing and sales in the respective segment will be closely observed, and the updates will be released when the necessary inputs are available.

Segment Forecasts

Crop growing

The crop growing segment covers wheat, legumes, rapeseed, barley, as well as several other forms, including grasses and corn for feed. Winter and summer wheat, legumes, and rapeseed are the primary revenue generators in this segment. Grain for cattle feed is grown from barley and triticale, while the green feed is grown from corn and a variety of perennial grasses.

During the 2020/21 season, c.a. 39,139 ha were cultivated, with the majority of the area (30.9th ha) having been seeded with cash crops. The Group seeds its winter crops, as they generally have a higher yield potential compared to summer alternatives. The cultivated land has increased 579ha compared to the 2019/20 harvest season; however, AUGA indicates the expansion of cultivated land is not planned to take place soon (relatively minor changes can be expected).

In 9M 2021, the y-o-y revenues of the crop growing segment decreased noticeably. Lithuania experienced extreme temperatures in summer that led to decreased yields. In June, the average temperature was the second-highest since 1961, but in July, it was a record high in the last 60 years. Plants stop growing when the tempera-

Crop growing segment	2019	2020	2021E	2022E	2023E	2024E
Sales of agricultural produce						
Total revenue of sold agricultural produce	29.5	35.3	23.3	34.2	35.9	37.7
Total cost of sold agricultural produce	(30.4)	(36.1)	(23.7)	(35.1)	(36.8)	(38.6)
Total inventory write-off	(1.5)	(1.4)	(3.0)	(1.3)	(1.4)	(1.4)
Result of sales of agricultural produce	**(2.5)**	**(2.3)**	**(3.4)**	**(2.2)**	**(2.3)**	**(2.3)**
Harvest of agricultural produce						
Total cultivated land, 000ha	**38.6**	**39.6**	**39.1**	**39.1**	**39.1**	**39.1**
Wheat	11.5	11.9	10.4	10.1	9.8	9.6
Legumes	8.0	9.0	8.1	8.4	8.6	8.9
Other cash crops	9.1	9.7	12.4	12.4	12.4	12.4
Forage crops	9.0	8.2	6.8	6.8	6.8	6.8
Fallow	0.9	0.9	1.5	1.5	1.5	1.5
Average harvest yield, t/ha						
Wheat	4.2	4.1	3.3	4.3	4.5	4.6
Legumes	1.7	2.7	1.1	2.8	2.8	2.9
Other cash crops	8.2	9.7	7.8	9.8	9.9	10.0
Forage crops	6.1	7.4	5.9	7.5	7.5	7.6
Total harvest, 000t						
Wheat	48.4	48.9	34.1	43.5	44.5	43.7
Legumes	13.4	24.4	8.9	23.3	24.5	25.8
Other cash crops	75.2	75.2	96.4	121.7	122.9	124.1
Forage crops	54.8	54.8	40.0	50.5	51.1	51.6
Total fair value of harvest, EUR'm	**39.7**	**41.5**	**37.0**	**51.0**	**51.9**	**52.5**
Wheat	13.7	10.1	8.2	10.5	10.7	10.5
Legumes	4.8	8.6	3.1	8.1	8.5	8.9
Other cash crops	14.1	16.5	21.1	26.7	26.9	27.2
Forage crops	7.2	6.3	4.6	5.8	5.8	5.9
Fallow	-	-	-	-	-	-
Gain on revaluation of agricultural produce at point of harvest	**5.3**	**7.7**	**(4.3)**	**6.8**	**7.1**	**7.5**
Agricultural subsidies						
Direct subsidies	5.4	4.9	5.1	5.1	7.7	7.7
Organic farming subsidies	3.1	2.6	4.1	4.1	6.1	6.1
Total subsidies	**6.5**	**7.5**	**9.2**	**9.2**	**13.8**	**13.8**
Gross profit of crop growing	**9.2**	**12.9**	**1.5**	**13.8**	**18.7**	**19.0**

Source: AUGA for historicals, LHV for estimates

ture reaches 25-27 degrees Celsius; furthermore, due to hot nights, the plants are struggling to revive themselves. These circumstances led to an average yield (t/ha) decrease y-o-y for wheat and legumes by 20% and 60%, respectively. Another factor impacting sales decrease in 2021 can be attributed to a large proportion of the previous harvest sold already in 2020, while the harvest of 2018/2019 was sold in 2019 and 2020 in similar proportions. The revenues from sold agricultural produce decreased from EUR 26.2m in 9M 2020 to EUR 18.4m in 9M 2021 (-30% y-o-y). Compared to the other segments, the crop growing segment is highly seasonal and the most vulnerable to adverse weather conditions. This makes it particularly challenging to forecast the segment's revenues, the fair value of the harvest, and profitability. Importantly, we consider this as a temporary setback, and hopefully, the next season weather conditions will bring a higher harvest.

According to the JRC Mars Bulletin October release, the period of review (autumn) was colder than usual in all countries. Rainfall was below the long-term average (LTA), and radiation prevailed close to the LTA or below, despite the relatively dry conditions. In the Baltic countries, the sowing of winter cereals was completed by the end of September, within the optimal time window. The rainfall events that occurred at the end of September were beneficial for the establishment of crops. Consequently, there is a good reason to believe that winter crop sowing has been successful and currently have a good harvest forecast.

For the forecast period, we have taken a positive view with the assumption that AUGA will steadily improve on its yields per hectare across various cash crops; however, due to temperatures higher than usual in this year's summer, we predict the current year revenues to decrease by 34% y-o-y. The cost of production remains a concern in terms of the segment's margins, and the segment is exposed to climatic risks and exogenous global price risks. Furthermore, we believe the 2022 revenues to decrease by 3% compared to 2020, considering less contribution from 2021 harvest which was severely impacted by weather conditions, but the previous year harvest contribution can fluctuate depending on contracted harvest in the respective year and change y-o-y results to positive or negative side. As such, we have assumed in normal conditions a steady growth in revenues from EUR 35.3m in 2020 to EUR 34.2-37.7m over the 2022-2024 forecast period, considering 2021 as a temporary setback.

Gross loss for the segment for 9M 2021 was EUR 0.50m compared to a gross profit of EUR 10.1m in 9M 2020. The bottom line was severely impacted by inventory write-offs and loss on revaluation of biological assets at fair value recognised in the reporting period. This, however, was caused by the factors discussed above, namely, extreme weather conditions in summer. We have assumed, under normal conditions, growth in gross profit from EUR 12.88m in 2020 to EUR 13.83-18.97m over the 2022-2024 forecast period, considering 2021 as a temporary setback. Although we predict the 2022 sales to reduce compared to 2020, we believe that profitability will increase due to full harvested area subsidy receival and improvement in cost efficiency which was observed already in 9M 2021. The rapid increase starting from 2023 is associated with higher subsidy expectations which will be discussed later.

Mushrooms

In terms of revenues, the mushroom growing segment is the most stable and second biggest contributor to the top line (Baltic Champs UAB is the largest mushroom production and marketing company in the Baltic states and the fifth-biggest in Europe), accounting for 36% of revenues in 2020.

Due to its labour intensiveness, the mushroom segment was the most exposed to the pandemic-related risks. Luckily in 2020, this risk did not materialise, however in 9M 2021, the Group faced challenges with an increase in the number of workers suffering from COVID-19 in its production units. As a result, the Group had to reduce its production and sales volumes. Furthermore, due to the long production process, the costs incurred in the production reduced at lower extent than revenues (-3% y-o-y). The average price of mushrooms increased by 4% y-o-y to EUR 2,326/t, mainly due to more packaged mushrooms sold, but the volumes decreased by 6% y-o-y to 9,072t. The organic mushroom sales share dropped in the respective period y-o-y (5.8% in 2021 9M compared to 7.6% in 9M 2020). The COVID-19 infection risks are expected to be avoided, considering that vaccination rates in mushroom production units now are reaching 60-69%. The Group expects to return to typical production volumes in Q4 2021. From the beginning of the pandemic, the main markets for mushroom compost were closed, and sales of compost have dropped significantly – 2020 compost sales decreased by 32% y-o-y to EUR 1.62m (2019 EUR 2.39m), while in 9M 2021, the compost sales decrease by 74% y-o-y to EUR 0.36m (9M 2020: EUR 1.40m). Total revenues in 9M 2021 decreased by 6% y-o-y to EUR 21.46m. Considering that cost of sales was reduced at a lower rate than sales, the gross profits for 9M 2021 decreased by 59% y-o-y.

Mushroom segment	2019	2020	2021E	2022E	2023E	2024E
Total tonnage sold, 000t	**12.3**	**13.9**	**13.1**	**13.7**	**13.7**	**13.9**
Non-organic mushrooms	11.3	12.9	12.4	12.6	12.3	12.0
Organic mushrooms	0.9	1.0	0.7	1.1	1.4	1.9
Total revenues from mushroom sales	**26.3**	**28.4**	**27.5**	**30.4**	**32.3**	**35.2**
Non-organic mushrooms	23.6	25.4	25.2	26.7	27.0	27.3
Organic mushrooms	2.7	3.0	2.3	3.8	5.3	7.9
Average price / kg						
Non-organic mushrooms	2.1	2.0	2.0	2.1	2.2	2.3
Organic mushrooms	2.9	3.1	3.3	3.6	3.8	4.1
Total cost of mushrooms sold	**(23.7)**	**(26.9)**	**(26.3)**	**(28.2)**	**(29.9)**	**(32.0)**
Non-organic mushrooms	(21.8)	(24.8)	(24.6)	(25.6)	(26.2)	(26.5)
Organic mushrooms	(1.9)	(2.1)	(1.6)	(2.6)	(3.7)	(5.5)
Total revenues from sale of mushroom seedbed	**2.4**	**1.6**	**0.4**	**0.4**	**1.2**	**1.3**
Total cost of sales of mushroom seedbed	**(2.5)**	**(1.4)**	**(0.4)**	**(0.4)**	**(1.1)**	**(1.2)**
Gross profit of mushroom growing segment	**2.5**	**1.8**	**1.3**	**2.3**	**2.5**	**3.3**

Source: AUGA for historicals, LHV for estimates

The Group has indicated that it intends to retain its leading position across the Baltics, though there are no plans yet to increase its production capacity significantly. Instead, it is working on the partial robotisation of mushroom seedbed production, mushroom picking and packaging. This would allow the Group to substantially reduce its labour costs and increase the efficiency of the mushroom growing segment. Considering that labour costs contribute around 25% of the mushroom segment's cost of goods sold, this robotisation could result in significant cost savings.

AUGA has indicated that due to hot weather, this summer has reduced production capacity in the market; thus, demand exceeds supply. Based on the increased demand for mushrooms and rising mushroom prices, it is expected that the revenues generated from mushroom sales will be rather at the same level as in 2020. However, the 9M 2021 production challenges have been taken into account; thus, we expect a 3% y-o-y decline. We expect total segment sales in 2021 to reach EUR 27.9m (-7% y-o-y) and continue to grow during the rest of the forecast period over 2022-2024 from EUR 30.9-36.6m. However, this will be sensitive to the rate at which the mushrooms can be relabelled and sold under the organic label and thus receive organic mushroom prices.

Dairy

The dairy segment includes milk processing and cattle rearing, including the maintenance of a healthy and balanced herd. This segment's main revenues come from sales of milk – the Group does not rear cattle for beef, but due to natural changes in the herd, elderly and unproductive cattle are sold for meat. This segment's revenues are relatively stable throughout the year. Furthermore, at the beginning of 2021, AUGA separated a section in the dairy segment called "Milk commodities". This section represents processed organic milk sales as milk powder or butter.

The Company changed its feed structure in order to achieve better yields and reduce costs; however, the effect was the opposite. Going into 2021, milk yields were lower compared to the same period of 2020; however, the feed was restructured, and inefficiency was fixed; thus, yields were higher by 3% y-o-y in Q3 202 and by 1% y-o-y in 9M 2021(average of 21.65kg/cow/day in 9M 2021compared to 21.44 kg/cow/day in 9M 2020). In 9M 2021, AUGA invested around EUR 3m in the development of its own organic combined feedstock production capacity, improving animal welfare and agricultural operations. Group has set a target to increase its milking herd up to 3.6 thousand by the end of 2021; however, this target will be postponed to 2022. As of 30th September 2021, the Group's heard consists of 3,494 cows and 3,040 heifers and bulls, compared to 3,444 cows and 2,916 heifers and bulls in 2020.

Total sales of the dairy segment for 9M 2021 amounted to EUR 10.16m compared to EUR 9.87m in 9M 2020. Due to fluctuations in sales as the Group approached new markets and the increased internal use of milk for newly born heifers, the quantities of milk sold decreased by 1% y-o-y from 20.39th tonnes in 9M 2020 to 20.17th tonnes in 9M 2021. The increased internal use of milk for heifers is expected to be in the short term.

The reduction in sold quantities was offset by the increase in average milk prices for 9M 2021; the average price of milk sold was around EUR 413 per tonne (+4% y-o-y). The average price increased due to a higher proportion of organic milk sold (98% in 9M 2021 compared to 91% in 9M 2020) and sales in new markets.

Although sales increased by 3%, the cost of sales increased by 4%; furthermore, the replacement of older cows with new ones for productivity purposes increased the write-offs, thus revaluation of assets amounted to EUR -2.48m compared to EUR -2.31m in 9M 2020. Despite the early challenges in production and increased losses from revaluation of biological assets, the Group managed to increase gross profit for the 9M2021 reaching EUR 0.17m compared to 9M 2020 EUR 0.08m. Increased subsidies were one of the major

Dairy segment	2019	2020	2021E	2022E	2023E	2024E
Total tonnage sold, 000't	**25.2**	**26.8**	**26.7**	**28.6**	**29.8**	**31.1**
Non-organic milk	6.4	1.5	0.4	0.1	0.0	0.0
Organic milk	18.1	23.9	25.1	26.3	27.6	29.0
Dairy Commodities	n.a.	0.7	0.7	1.8	1.9	2.0
Cattle	0.7	0.7	0.7	0.8	0.8	0.9
Total revenue of dairy segment, EURm	**10.1**	**12.9**	**13.5**	**14.4**	**15.5**	**16.8**
Non-organic milk	2.1	0.5	0.1	0.0	0.0	0.0
Organic milk	7.4	9.6	10.3	11.2	12.1	13.1
Dairy Commodities	n.a.	2.1	2.2	2.3	2.4	2.5
Cattle	0.7	0.7	0.9	0.9	1.0	1.2
Average price / kg						
Non-organic milk	0.3	0.3	0.3	0.4	0.4	0.4
Organic milk	0.4	0.4	0.4	0.4	0.4	0.5
Dairy Commodities	n.a.	3.0	3.0	3.1	3.2	3.3
Cattle	1.0	1.1	1.2	1.2	1.2	1.3
Total cost of dairy segment, EURm	**(10.6)**	**(12.6)**	**(13.1)**	**(13.9)**	**(15.0)**	**(16.2)**
Milk	(9.9)	(9.8)	(10.1)	(10.8)	(11.7)	(12.7)
Dairy Commodities	n.a.	(2.1)	(2.1)	(2.2)	(2.2)	(2.3)
Cattle	(0.7)	(0.7)	(0.9)	(0.9)	(1.0)	(1.2)
Revaluation of biological assets, EURm	**(2.2)**	**(2.5)**	**(3.3)**	**(2.2)**	**(2.3)**	**(2.5)**
Total subsidies, EURm	**0.8**	**2.5**	**3.1**	**3.1**	**5.2**	**5.6**
Gross profit of dairy segment, EURm	**(1.9)**	**0.4**	**0.2**	**1.3**	**3.4**	**3.7**

Source: AUGA for historicals, LHV for estimates

factors that allowed gross profit growth, but the subsidy factor will be discussed later.

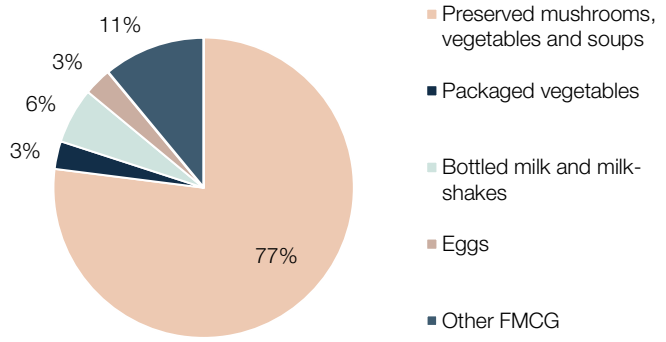
The main driver of revenues in the dairy segment will be the improved milk yields per cow and the continued shift towards the sale of organic milk, which sells at a higher price than non-organic milk. There is a reasonable belief that newborn heifers and enhanced feed will contribute to an increase in yields. Furthermore, AUGA has been successful in finding new markets for expanding organic milk sales. On account of these two factors, it is expected that the revenues generated from this segment will increase from EUR 12.94m in 2020 to EUR 13.48-16.76m over the 2021-2024 forecast period. If the shift to organic milk sales is faster, or the price of milk sold increases more aggressively than estimated, there could be upside gains relative to the forecasts.

Regarding gross profit, we expect further growth due to previously mentioned sales growth, reduced write-offs and increased subsidies. As the old cows will be replaced by currently heifers, the write-offs will reduce. Furthermore, we also expect the growth in subsidies along with the new CAP coming into force. We expect that the gross profit generated from this segment will increase (except for 2021) from EUR 0.39m in 2020 to EUR 0.2-3.67m over the 2021-2024 forecast period. The setback in gross profit for 2021 is expected due to increasing write-offs.

End-consumer packaged goods

The end-consumer packaged goods segment includes long shelf-life products such as canned and packaged vegetables and ready-to-eat soups. The majority of this segment's products are exported. One of the main export partners is Costco Wholesale Canada Ltd (one of the world's largest retailers, operating more than 700 stores worldwide, of which nearly 500 are located in the US and over 100 in Canada), Stop & Shop in the United States, and Metro in Canada. Stop & Shop is a well-known US retail chain with 415 physical stores in the North-eastern United States, while the food retail chain Metro is currently the third-largest in Canada. The Group is also in negotiations with other retailers in the US and other export markets.

FMCG product sales proportions (9MTH 2021)



Source: AUGA

While this segment in terms of revenue is still the smallest, sales are rapidly increasing y-o-y. Sales increased from EUR 2.8m in 2019 to EUR 4.9m in 2020 (+74% y-o-y). In 9M 2021, AUGA reported sales revenue of EUR 4.88m compared to EUR 3.37m in 9M 2020. The sales growth is supported by increasing consumer acceptance of AUGA's products, with increased export volumes. Currently, the Group has a presence in 35 countries worldwide (30 in 2020), with the main markets being the US, Lithuania, and Japan. Further distribution development is mainly focused on the USA and Asian markets, where preserved products range gets most of the interest. Recently some fluctuations in sales were caused by logistic issues that were influenced by the pandemic; thus, AUGA has fewer but larger orders.

We expect revenues from this segment to continue to grow during our forecast period. It is becoming a strategically important segment, as it helps to diversify the current business lines and adds value to other segments. With the expanding international markets and expanding product range, it is expected that the revenues generated from this segment will increase from EUR 4.88m in 2020 to EUR 6.34-12.77m over the 2021-2024 forecast period.

Considering gross profit in 9M 2021, the Group reached EUR 1.47m compared to EUR 0.29m in 9M 2020, showing impressive y-o-y growth of 407%. Part of the growth can be attributed to the consolidation of Grybai LT KB; however, considering the cost of sales that grew only by 11% y-o-y compared to a 45% y-o-y increase in sales, the main reason for such growth can be attributed to economies of scale.

Considering the bottom line, the FMCG segment, as expected, has higher margins (added value) compared to commodities (e.g. grains or milk), thus even if the revenue level is far from other segment levels, the bottom line is starting to contribute substantial amounts to total gross profits. For instance, comparing this 9M 2021 gross profit (EUR 1.47m) for FMCG with dairy segment or mushroom segment results, we see that the FMCG segment is contributing more. Although the mushroom segment was affected by the pandemic this year, comparing this year's FMCG segment gross profits to mushroom segment gross profits in 9M 2019 (when the mushroom segment was not affected by any factor), the gross profit contribution is almost equal. The essence of this comparison was that the FMCG segment has become a relevant contributor to Group's profitability and further development. Thus, we expect the gross profit to increase from EUR 0.75m in 2020 to EUR 1.62-3.26m for the forecast period 2021-2024..

Subsidies

Subsidies are a crucial contributor to any agricultural company's profitability and viability. In 2020, these subsidies totalled EUR 10m (2019: EUR 7.23m). It should be noted, though, in 2019, the Group did not actually receive the full EUR 8.5m in crop growing subsidies, as it lost EUR 2.1m worth of subsidies. This was a one-off event as a result of the Group failing to grow and declare the perennial grass crops, as required by the Lithuanian Rural Deployment Program, due to the unfavourable weather conditions. The sanctions were eliminated in 2020. In 9M 2021, Group received EUR 9.34m in subsidies compared to EUR 7.54m (24% y-o-y increase) in 9M 2020. The increase was achieved by submitting to the subsidy program all of AUGA's land; thus, the increase is not only temporary.

Furthermore, starting from 2023, we expect subsidies to be 50% higher compared to 2021 levels, considering the new CAP coming into force, which will substantially contribute to crop and dairy gross

End-consumer packaged goods segment	2019	2020	2021E	2022E	2023E	2024E
Total revenue from end-consumer packaged goods	2.8	4.9	6.3	8.9	11.1	12.8
Total cost of sales of end-consumer packaged goods	(2.8)	(4.1)	(4.7)	(6.6)	(8.3)	(9.5)
Gross profit of end-consumer packaged goods	**0.0**	**0.7**	**1.6**	**2.3**	**2.8**	**3.3**

Source: AUGA for historicals, LHV for estimates

margins. It has to be mentioned that 50%, in our opinion, would be a conservative view as IFOAM reported that in order for Lithuania to achieve the EU goal of 25% of organic agricultural land by 2030, it would need to increase CAP spending 2-3 times than what is currently spent.

Operating expenses

The Group's operating expenses in 2020 were c.a. EUR 10.2m (+6.3% y-o-y). The increase is mostly related to the increased insurance and selling expenses. Additionally, the operating expenses of the newly acquired entity Grybai LT KB were included in consolidated financial statements as of 1st June 2020. In 9M 2021, operating expenses amounted to EUR 8.22m (+13% y-o-y). The increase was caused by increased salary expenses, selling expenses, and operating expenses of Gribay LT KB is fully represented in 2021, which was not the case in 2020 as the entity was included on 1st June 2020. Furthermore, the Group indicates that the increasing energy prices do not affect the operating expenses meaningfully.

Looking ahead, for operating expense growth, we expect operating expenses to grow at a CAGR of 8% during 2021-2024 from EUR 10.4m to EUR 13.1m respectively.

Debt coverage

At the end of 2019, AUGA raised an additional EUR 20m capital through green bonds in order to finance its expansion and R&D. Considering that the maturity date is 17th December 2024, we strongly believe that refinancing by issuing new bonds will be necessary in order to cover the principal value of the current bonds. The refinancing step is crucial for the Group to continue successful operations; thus, we consider some metrics (see table below) that would give a good indication of the refinancing success.

As discussed before, due to several factors influencing the performance of the Group in 2021, the debt coverage does not bring a positive view in the respective period; however, under normal weather circumstances, we expected growth in operating profitability. Furthermore, comparing it to the expected interest payments, the interest coverage ratio shows optimal coverage in 2022 and very stable coverage further on.

Consequently, we see AUGA is capable of covering its debt obligations and appealing to bond investors as the refinancing bond issue takes place at the end of 2024. Last but not least, as discussed extensively in the Biodiversity section, raising capital will be dependent on the usage of funds. Considering that the Group's operations are promoting biodiversity and promoting environmental conservation in general the issuance of green bonds will certainly boost investor activity.

As per AUGA the current results imply some debt financing limitations for the development and realization of R&D projects (including AUGA M1), however the resultant fluctuations due to weather conditions is the nature of agriculture business. AUGA is conducting conversations with the main debt financing partners and currently sees the conversations as productive and with a positive view on the outcome

Profitability

The Group managed to record a net profit of EUR 1.8m in 2020, compared to the net loss of EUR 3.2m in 2019. It was supported by growth in revenues and gain on biological assets. However, due to severe weather impact in crop growing segment, write-offs, and several operational issues in the mushroom segment, the Group reported a net loss of EUR 10.43m in 9M 2021, compared to a net profit of EUR 0.44m in 9M 2020. Due to unfavourable conditions in summer for the crops and continuing write-offs of the herd, we expect that the Group will report a net loss of EUR 12.44m for FY 2021.

If the Group can gradually increase its level of sales, improve its efficiency, and is not impacted by unusual weather patterns that can adversely affect the crop growing segment, we estimate a net profit of EUR 1.21-10.17m during the 2022-2024 forecast period.

Valuation

AUGA group has been valued based on two methodologies:

- DCF – the free cash flow to equity can be calculated as the tax-adjusted operating profit and making adjustments for working capital, investments, depreciation, and amortisation. This approach is adopted over the free cash flow to the firm to adjust for IFRS 16 impact.
- Relative valuation – it considers several peer group multiples for 2022 and 2023, and applies the peer group median multiples to our forecast for the Group to establish a fair value range. The EV/EBITDA multiple includes the effect of IFRS 16.

We believe that it has been necessary to adjust our DCF and EV/EBITDA calculations, as the Group's financial results are impacted by (a) the application of a new method for the estimation of the value of the crops at the end of the reporting period, and (b) the introduction of changes in the Group's accounting policy relating to IFRS 16.

In particular, the Group stated that IFRS 16 had a significant impact on its EBITDA. The depreciation of right-of-use assets and interest expenses related to lease liabilities arising from the right-of-use assets are now excluded from the calculation of EBITDA, whereas operating lease expenses were previously included in the calculation of EBITDA.

Additionally, it had a significant impact on the level of financial liabilities disclosed in the balance sheet. Due to the adoption of IFRS 16, the financial liabilities as at the 31st of December 2019 increased by 59%, whereas the exclusion of the accounting procedure leaves the financial liabilities as at the 31st of December 2019 slightly above the 2018 level.

DCF

The DCF valuation is based on the two-step DCF model, which includes the five years and one quarter projections for the Group's

	2020	2021E	2022E	2023E	2024E
Debt/Equity ratio	1.0	1.2	1.2	0.9	0.8
EBIT (EURm)	6.0	(5.4)	8.5	15.2	16.6
EBIT growth (%)	490.0	n.a	n.a	78.5	9.2
EBIT margin (%)	7.2	-7.5	9.6	15.8	16.0
Interest Coverage	1.1	(0.8)	1.2	2.7	2.6

Source: AUGA for historicals, LHV for estimates

financial results to calculate the free cash flow to equity, followed by the terminal period. The DCF valuation method uses the following base assumptions:

- Risk-free rate and market risk premium – these are sourced from the "2017 Valuation Handbook - International Industry Cost of Capital" published by Duff & Phelps.
- Beta – the Duff & Phelps Vasicek adjusted unlevered beta of 0.48x for the agricultural sector is adjusted for the Group's debt-to-equity ratio to derive a levered beta of 0.74x.
- Country risk premium – a Lithuanian risk premium of 1.13% is sourced from Damodaran's database.
- Company-specific risk premium – a company-specific risk premium of 5% is applied.
- Tax rate – the general corporate income tax ('CIT') rate in Lithuania is 15% of company profits. However, if certain conditions are met, agricultural companies can apply reductions in CIT, putting it in the range of 0% to 5%. An average CIT of 2.5% is used in the DCF valuation.
- Terminal value – it is assumed that the terminal growth rate will be 2.5%.

Based on these assumptions, the resulting DCF-based value for the Group's equity is c.a. EUR 153.49m, which equates to EUR 0.67 per share.

Three peer multiples, P/Book, P/E, and EV/EBITDA, are used to calculate the peer-implied fair value range, based on our forecasts for equity, net profit, and EBITDA. These multiples are weighted with a 20% weight for 2022 and an 80% weight for 2023. (in EUR mns) except per share data, percentages and number of shares

However, the DCF valuation is sensitive to changes in the main assumptions, which is demonstrated in the accompanying sensitivity table.

Relative valuation

The challenge in comparing AUGA with other listed agricultural companies is that there are no listed peers that adopt a vertically integrated organic business model. To derive an indicative equity value range based on the market multiples of somewhat comparable listed companies, two groups of peers are put together:

- The first group of four companies includes companies that grow

DCF Assumptions	
Risk free rate	2.5%
Beta	0.74
Equity risk premium	5.1%
Country Risk Premium	1.1%
Company Specific Risk Premium	5.00%
Cost of equity	**12.4%**

Source: LHV

Sensitivity of DCF Value to Changes in Assumptions (EUR)

Terminal growth rate \ Cost of Equity	9.4%	10.4%	11.4%	12.4%	13.4%	14.4%	15.4%
2.2%	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2.3%	0.66	0.66	0.66	0.66	0.66	0.66	0.66
2.4%	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2.5%	0.67	0.67	0.67	0.67	0.67	0.67	0.67
2.6%	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2.7%	0.69	0.69	0.69	0.69	0.69	0.69	0.69
2.8%	0.69	0.69	0.69	0.69	0.69	0.69	0.69

DCF Valuation, EURm	Q4 2021E	2022E	2023E	2024E	2025E	2026E	Terminal
Revenue	16.1	88.3	96.0	103.8	112.8	124.4	
EBIT*(1-t)	0.5	8.3	14.8	16.2	17.7	19.9	
D&A	1.4	12.9	12.4	12.1	11.7	11.4	
Changes in working capital	3.0	(8.5)	(7.1)	(6.3)	(6.4)	(6.5)	
Net Capital expenditure	(0.7)	(5.0)	(5.1)	(5.2)	(5.1)	(5.1)	
FCFF	**4.2**	**7.7**	**15.1**	**16.7**	**18.0**	**19.7**	
Growth (%)	(0.3)	0.8	1.0	0.1	0.1	0.1	
Interest*(1-t)	(2.7)	(7.1)	(5.6)	(6.2)	(6.1)	(6.0)	
Net Borrowings	2.3	3.8	3.7	3.6	3.6	3.6	
FCFE	**3.8**	**4.3**	**13.2**	**14.2**	**15.5**	**17.3**	
Year factor	1.0	2.0	3.0	4.0	5.0	6.0	
PV factor	0.9	0.8	0.7	0.6	0.6	0.5	
PV of FCFE	**3.4**	**3.4**	**9.3**	**8.8**	**8.6**	**8.5**	
Equity Value (in EUR mns)							**153.5**
Outstanding shares (in mns)							227.4
Target value per share (in EUR)							**0.7**

Source: LHV

Company	Bloomberg ticker	Market Cap	EV/EBITDA (x)		P/E (x)		P/BV (x)	
		(EURm)	2022E	2023E	2022E	2023E	2022E	2023E
SUNOPTA INC	SOY CN Equity	821	11.5	10.5	37.2	20.3	2.0	n.a.
HAIN CELESTIAL GROUP INC	HAIN US Equity	3560	14.6	13.1	24.1	20.7	2.4	2.3
COSTA GROUP HOLDINGS LTD	CGC AU Equity	1150	7.2	6.5	15.0	12.8	1.6	1.5
FRESH DEL MONTE PRODUCE INC	FDP US Equity	1603	7.9	n.a.	12.8	n.a.	n.a.	n.a.
VILLAGE FARMS INTERNATIONAL	VFF CN Equity	479	12.0	8.9	39.8	20.8	n.a.	n.a.
THE NATIONAL AGRICULTURE DEV	NADEC AB Equity	1084	10.2	9.0	23.6	16.8	2.0	1.8
SELECT HARVESTS LTD	SHV AU Equity	691	12.2	9.9	16.4	11.7	1.4	1.3
JOHN B. SANFILIPPO & SON INC	JBSS US Equity	880	n.a.	n.a.	17.7	16.3	n.a.	n.a.
ICHITAN GROUP PCL	ICHI TB Equity	338	9.3	8.5	17.8	14.9	2.0	1.9
Median (excluding outliers)			10.9	9.0	17.8	16.5	2.0	1.8
Average (excluding outliers)			10.6	9.5	22.7	16.8	1.9	1.7

Respective denominator for AUGA, EURm	Net Debt	EBITDA		Net Profit		Book Value	
		2022E	2023E	2022E	2023E	2022E	2023E
	(98.2)	19.4	28.0	1.2	9.5	81.4	90.9
Indicative share price		0.5	0.7	0.1	0.7	0.7	0.7
Weight (%)		20.0	80.0	20.0	80.0	20.0	80.0
Implied weighted share price		**0.65**		**0.57**		**0.73**	

Source: Bloomberg, LHV

and/or produce a wide range of agricultural products that are entirely organic and/or hormone-or antibiotic-free, GMO-free, or 'natural'.

- The second peer group of five companies includes companies that grow and/or produce agricultural products that are entirely organic and/or hormone-or antibiotic-free, GMO-free or 'natural', but specialise in producing a limited number of agricultural products, for example, organic milk products, nuts, tea and beverages, delicatessen, and various health products.

Additionally, it is acknowledged that most of the peers are significantly larger than AUGA, with more significant global footprints, economies of scale, and established brand names in their home markets. However, AUGA has its own qualities, such as robust growth characteristics, strong ESG considerations, and a well-established presence in its home market.

Valuation Summary

In valuing AUGA group, we have used the weighted average of the values derived from the DCF and the three peer group multiples, applying different weights to each method. As the companies of the peer group are considerably larger than AUGA, the DCF method is seen as more applicable and thus is given a weight of 50%. The P/Book, P/E, and EV/EBITDA each share a weight of 16.7%.

Based on these weights to the applicable values, we maintain a fair value range for Auga at EUR 0.61-0.71 per share. The share price as of 17th December 2021 was EUR 0.50 per share.

Weighted Value Per Share, EUR	Total weighted value	Weights (%)	Contribution to value
P/Book	0.73	16.67%	0.12
P/E	0.57	16.67%	0.09
EV/EBITDA	0.65	16.67%	0.11
DCF	0.67	50.00%	0.34
Total weighted value per share			**0.66**

Source: LHV

Financial Tables

Income Statement, EURm	2018	2019	2020	2021E	2022E	2023E	2024E
Revenues	54.7	71.1	83.1	71.0	88.3	96.0	103.8
Cost of Sales	(45.8)	(64.4)	(72.5)	(58.9)	(73.2)	(73.5)	(79.5)
Gain (Loss) On Changes In Fair Values Of Biological Assets And On Recognition At Fair Value Of Agricultural Produce At Point Of Harvest	(5.3)	3.1	5.2	(7.5)	4.6	4.8	5.0
Gross Profit	**3.7**	**9.8**	**15.8**	**4.6**	**19.7**	**27.3**	**29.3**
Operating Expenses	(10.4)	(9.6)	(10.2)	(10.4)	(11.6)	(12.5)	(13.1)
Write-offs of negative goodwill	-	-	-	-	-	-	-
Revaluation Of Investment Property	-	-	-	-	-	-	-
Other Income	2.8	0.7	0.4	0.4	0.4	0.4	0.4
Operating Profit	**(3.9)**	**1.0**	**6.0**	**(5.4)**	**8.5**	**15.2**	**16.6**
Net Financial Cost	(2.3)	(5.0)	(5.5)	(7.1)	(7.3)	(5.7)	(6.4)
Other financial items	(0.2)	-	-	-	-	-	-
Profit (Loss) Before Income Tax	**(6.5)**	**(4.0)**	**0.4**	**(12.5)**	**1.2**	**9.5**	**10.2**
Income Tax Expense	0.5	0.8	0.4	-	-	-	-
Minority Interest	0.02	(0.01)	(0.03)	0.04	(0.00)	(0.03)	(0.04)
Net Profit / (Loss) For The Year: Attributable to equity holders of the Group	**(6.0)**	**(3.2)**	**0.9**	**(12.4)**	**1.2**	**9.5**	**10.2**

Source: AUGA for historicals, LHV for estimates

Balance Sheet, EURm	2018	2019	2020	2021E	2022E	2023E	2024E
Assets							
Non-Current Assets							
Property, Plant And Equipment	92.9	128.1	132.6	128.4	120.6	113.3	106.4
Investment Property	-	-	-	-	-	-	-
Intangible Assets	2.4	0.0	3.4	3.4	3.0	2.6	2.2
Long Term Receivables	5.6	5.7	0.4	0.4	0.4	0.4	0.4
Available for sale investments	0.4	0.4	0.1	0.1	0.1	0.1	0.1
Investments In Subsidiaries	0.1	0.1	-	-	-	-	-
Deferred Tax Asset	1.4	1.1	1.4	1.4	1.4	1.4	1.4
Biological Assets	9.1	9.4	9.7	9.6	9.6	9.6	9.6
Total Non-Current Assets	**111.9**	**144.7**	**147.6**	**143.3**	**135.0**	**127.3**	**120.0**
Current Assets							
Biological Assets	14.4	16.0	17.1	15.6	21.7	22.1	22.4
Inventory	28.7	29.0	30.4	22.1	27.9	28.6	30.9
Trade Receivables, Advance Payments And Other Receivables	14.6	13.3	16.1	17.1	21.1	23.0	24.7
Cash And Cash Equivalents	2.2	3.7	2.5	4.0	1.1	1.9	6.1
Assets held for sale	-	-	-	0.3	0.3	0.3	0.3
Total Current Assets	**60.0**	**62.0**	**66.1**	**59.0**	**72.0**	**76.0**	**84.3**
Total Assets	**171.9**	**206.7**	**213.7**	**202.3**	**207.0**	**203.2**	**204.4**
Equity and Liabilities							
Equity							
Capital And Reserves							
Share Capital	66.0	66.0	66.0	66.0	66.0	66.0	66.0
Share Premium	6.7	6.7	6.7	6.7	6.7	6.7	6.7
Revaluation Reserve	7.2	8.5	9.2	9.2	9.2	9.2	9.2
Legal Reserve & Other Reserves	2.6	3.5	4.3	5.0	5.0	5.0	5.0

Balance Sheet, EURm (...continued)	2018	2019	2020	2021E	2022E	2023E	2024E
Retained Earnings / (Accumulated Deficit)	8.9	5.1	6.2	(6.7)	(5.5)	4.0	14.1
Equity Attributable To Equity Holders Of The Parent	**91.4**	**89.7**	**92.5**	**80.2**	**81.4**	**90.9**	**101.1**
Non-Controlling Interest	0.4	0.4	0.4	0.2	(0.0)	(0.3)	(0.5)
Total Equity	**91.7**	**90.1**	**92.8**	**80.4**	**81.4**	**90.6**	**100.5**
Liabilities							
Non-Current Liabilities							
Borrowings and Green Bond	13.8	20.7	40.5	50.3	47.8	45.3	42.8
Obligations Under Finance Lease	7.9	36.2	33.7	36.6	35.6	34.6	33.6
Lease liabilities related to right-of-use assets	-	30.8	30.0	29.7	29.7	29.7	29.7
Lease liabilities related to other assets	7.9	5.3	3.7	6.9	5.9	4.9	3.9
Deferred Grant Income	3.4	3.0	3.2	3.2	3.2	3.2	3.2
Deferred Tax Liability	0.9	1.5	1.5	1.5	1.5	1.5	1.5
Total Non-Current Liabilities	**26.0**	**61.3**	**78.9**	**91.5**	**88.0**	**84.5**	**81.0**
Current Liabilities							
Current Portion Of Non-Current Borrowings	9.3	10.8	3.4	0.9	0.7	0.5	0.3
Current Portion Of Non-Current Obligations Under Finance Lease	3.6	7.1	7.6	0.3	0.3	0.3	0.3
Lease liabilities related to right-of-use assets	-	4.1	4.6	1.2	1.2	1.2	1.2
Lease liabilities related to other assets	3.6	2.9	3.0	(0.9)	(0.9)	(0.9)	(0.9)
Current Borrowings and Green Bond	21.3	19.3	9.4	9.8	9.8	4.6	1.5
Trade Payables	14.7	13.4	16.3	13.8	19.8	15.4	12.9
Income tax payable	-	-	-	-	-	-	-
Other Payables And Current Liabilities	5.3	4.7	5.3	5.5	7.0	7.3	7.7
Total Current Liabilities	**54.1**	**55.3**	**42.0**	**30.3**	**37.6**	**28.1**	**22.8**
Total Liabilities	**80.2**	**116.6**	**120.9**	**121.8**	**125.6**	**112.6**	**103.8**
Total Equity And Liabilities	**171.9**	**206.7**	**213.7**	**202.3**	**207.1**	**203.3**	**204.4**

Source: AUGA for historicals, LHV for estimates

Cash Flow Statement, EURm	2018	2019	2020	2021E	2022E	2023E	2024E
Net Profit (Loss) Before Income Tax	**(6.5)**	**(4.0)**	**0.5**	**(12.7)**	**1.2**	**9.5**	**10.2**
Adjustments For Non-Cash Expenses (Income) Items And Other Adjustments							
Depreciation Expense (PPE)	7.5	7.3	7.3	7.2	6.8	6.4	6.0
Depreciation Expense (ROU)	-	5.5	6.0	6.1	6.1	6.1	6.1
Amortization Expense	0.6	0.0	0.0	0.5	0.5	0.4	0.3
Other changes in PPE and Intangibles	0.1	-	-	-	-	-	-
(Profit) Loss On Sales Of Non-Current Assets	(0.0)	0.0	(0.0)	(0.0)	-	-	-
Write-Offs Of Inventory	1.6	1.9	2.0	3.0	-	-	-
Net Finance Cost	1.8	2.3	3.5	2.9	4.9	5.7	4.0
Net Finance Cost (ROU)	-	2.1	1.7	2.1	-	-	-
Loss (Gain) On Changes In Fair Value Of Biological Assets	5.3	(3.1)	(5.2)	5.9	-	-	-
Currency exchange losses		-	-	-	-	-	-
Grants Related To Assets, Recognized As Income	(0.5)	(0.4)	(0.5)	(0.4)	-	-	-
Other Items	(1.7)	2.5	0.5	-	-	-	-
Changes In Working Capital		**-**	**-**	**-**	**-**	**-**	**-**
(Increase) Decrease In Biological Assets	(10.6)	2.6	4.1	(3.8)	(6.1)	(0.4)	(0.3)
(Increase) Decrease In Trade Receivables And Prepayments	(2.5)	(1.5)	(2.4)	(1.0)	(4.1)	(1.9)	(1.7)
(Increase) Decrease In Inventory	(3.9)	(2.1)	(2.6)	5.4	(5.8)	(0.7)	(2.3)
(Decrease) Increase In Trade And Other Payables	(0.7)	(3.2)	1.6	(4.8)	7.5	(4.0)	(2.1)
Cash Flows From /(To) Operating Activities	**(9.7)**	**9.8**	**16.6**	**10.3**	**11.0**	**20.9**	**20.3**

Cash Flow Statement, EURm (...continued)	2018	2019	2020	2021E	2022E	2023E	2024E
Income Tax Paid	-	-	-	-	-	-	-
Interest Received, Gross	-	-	-	-	-	-	-
Interest Paid, Gross	(1.7)	(4.4)	(5.2)	(2.4)	(4.9)	(5.7)	(4.0)
Changes in other assets/liabilities		-	-	-	-	-	-
Net Cash Flows From /(To) Operating Activities	**(11.5)**	**5.4**	**11.4**	**7.9**	**6.1**	**15.2**	**16.3**
Cash Flows From /(To) Investing Activities							
Purchase Of Property, Plant And Equipment	(4.0)	(3.2)	(6.9)	(6.1)	(5.0)	(5.1)	(5.2)
Purchase Of Non-Current Intangible Assets	(0.0)	-	-	-	-	-	-
Purchase Of Investments	(2.2)	-	-	(0.0)	-	-	-
Purchase Of Accounts Receivables (Ktg Group)	-	-	-	-	-	-	-
Cash Acquired With Subsidiaries	-	-	-	-	-	-	-
Purchase Of Investment Property, Investments	-	-	(1.5)	-	-	-	-
wwProceeds From Sales Of PPE	0.2	0.4	0.1	0.1	-	-	-
Proceeds From Sales Of Investments	1.0	-	0.4	-	-	-	-
Grants Related To Assets, Received From NPA	0.3	0.9	0.7	0.4	-	-	-
Loans Repaid (Granted)	(1.3)	(0.4)	-	0.1	-	-	-
Other Investing activities		-	-	(0.0)	-	-	-
Net Cash Flows From/(To) Investing Activities	**(6.0)**	**(2.4)**	**(7.2)**	**(5.5)**	**(5.0)**	**(5.1)**	**(5.2)**
Cash Flows From /(To) Financing Activities							
Proceeds from equity issuance	17.6	18.5	-	-	-	-	-
Disposal (Acquisition) Of Available For Sale Investments	-	-	-	-	-	-	-
Loans Repaid To Banks	(18.5)	(11.9)	(24.2)	(9.8)	-	-	-
Borrowing Received	21.2	6.2	29.9	17.1	(2.7)	(8.0)	(5.7)
Other Financing Activities	4.0	(6.4)	(3.6)	(0.0)	-	-	-
Other changes in equity		-	-	(0.1)	(0.2)	(0.3)	(0.3)
Finance Lease Obtained (Repaid)	(5.1)	(8.0)	(7.6)	(8.1)	(1.0)	(1.0)	(1.0)
Net Cash Flows From/(To) Financing Activities	**19.2**	**(1.5)**	**(5.4)**	**(1.0)**	**(3.9)**	**(9.2)**	**(6.9)**
Net (Decrease) / Increase In Cash And Cash Equivalents	**1.7**	**1.5**	**(1.2)**	**1.4**	**(2.9)**	**0.9**	**4.1**
Cash And Cash Equivalents At The Beginning Of The Period	**0.6**	**2.3**	**3.7**	**2.5**	**3.9**	**1.1**	**1.9**
Cash And Cash Equivalents At The End Of The Period	**2.3**	**3.7**	**2.5**	**3.9**	**1.1**	**1.9**	**6.1**

Source: AUGA for historicals, LHV for estimates

Key Ratios	2018	2019	2020	2021E	2022E	2023E	2024E
Segment Revenue Contribution							
Mushroom sales	48.3%	40.4%	36.1%	39.3%	34.9%	34.9%	35.2%
Milk sales	n.a.	n.a.	15.6%	19.0%	16.3%	16.2%	16.2%
Agricultural sales	31.9%	41.5%	42.4%	32.8%	38.7%	37.4%	36.3%
FMCG	(0.6)%	0.0%	5.9%	8.9%	10.1%	11.6%	12.3%
Total	**79.7%**	**81.8%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Growth							
Revenue (%)	12.2	29.9	16.8	(14.5)	24.3	8.7	8.1
Gross Profit (%)	(75.5)	168.8	60.2	(70.8)	327.5	38.6	7.1
EBITDA (%)	(69.8)	314.4	28.0	(57.5)	108.6	44.2	(5.2)
EBIT (%)	n.a	n.a.	490.0	n.a.	n.a.	78.5	9.2
Pre-tax Profit (%)	n.a	(38.2)	n.a.	n.a.	n.a.	682.9	7.5
Net Profit (%)	n.a	(46.2)	n.a.	n.a.	n.a.	682.9	7.5
EPS (%)	n.a	(49.2)	(30.2)	707.1	n.a.	682.9	7.5

Key Ratios...continued	2018	2019	2020	2021E	2022E	2023E	2024E
Profitability							
Gross Profit margin (%)	6.7	13.8	19.0	6.5	22.3	28.4	28.2
Mushroom sales	n.a.	n.a.	n.a.	4.6	7.4	7.3	9.1
Dairy sales	n.a.	n.a.	n.a.	2.7	3.0	3.3	3.5
Agricultural sales	n.a.	n.a.	n.a.	(14.8)	(6.3)	(6.3)	(6.1)
FMCG	n.a.	n.a.	n.a.	25.5	25.5	25.5	25.5
Other revenues	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
EBITDA margin (%)	7.5	24.1	26.4	13.1	22.0	29.2	25.6
EBIT margin (%)	(7.2)	1.4	7.2	(7.5)	9.6	15.8	16.0
PBT margin	(11.8)	(5.6)	0.5	(17.6)	1.4	9.9	9.8
Net Profit margin (%)	(10.9)	(4.5)	1.1	(17.6)	1.4	9.9	9.8
Return							
ROCE (%)	(3.0)	0.6	3.2	(2.9)	4.8	8.7	9.4
ROE (%)	(7.0)	(3.6)	0.9	(14.4)	1.5	11.0	10.6
ROA (%)	(3.7)	(1.7)	0.4	(6.0)	0.6	4.6	5.0
Liquidity							
Current ratio (x)	1.1	1.1	1.6	1.9	1.9	2.7	3.7
Quick ratio (x)	0.3	0.3	0.4	0.7	0.6	0.9	1.3
Working Capital							
Debtor Days	84.5	71.6	64.6	85.1	78.8	83.8	83.8
Inventory Days	216.1	163.5	149.6	162.8	124.5	140.2	136.6
Creditor Days	116.1	79.7	75.0	93.3	83.6	87.4	65.0
Cash Conversion Cycle (days)	184.5	155.4	139.2	154.7	119.8	136.6	155.4
Leverage							
Net gearing (x)	0.6	1.0	1.0	1.2	1.1	0.9	0.7
Debt/Equity ratio (x)	0.6	1.0	1.0	1.2	1.2	0.9	0.8
Operating (x)	(13.0)	(4.2)	29.2	13.1	(10.6)	9.0	1.1
Financial (x)	1.3	0.4	(0.1)	(3.7)	0.4	8.7	0.8
Combined (x)	(16.7)	(1.6)	(1.8)	(48.8)	(4.4)	78.1	0.9
Valuation							
Shares outstanding (m)	227.4	227.4	227.4	227.4	227.4	227.4	227.4
Share price (EUR)	0.4	0.4	0.4	0.5	0.5	0.5	0.5
Mkt. cap (EURm)	91.0	82.8	101.0	113.5	113.5	113.5	113.5
Enterprise value (EURm)	144.6	173.0	193.3	207.6	207.6	207.6	207.6
EV/Revenue (x)	2.6	2.4	2.3	2.9	2.4	2.2	2.0
EV/EBITDA (x)	35.0	10.1	8.8	22.3	10.7	7.4	7.8
P/E (x)	n.m.	n.m.	n.m.	n.m.	93.9	12.0	11.2
P/BVPS (x)	1.0	0.9	1.1	1.4	1.4	1.2	1.1
Dividend yield (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Key Definitions/Formulas	
ROE	Net profit divided by average equity book value
ROCE	EBIT divided by average capital employed
ROA	Net profit divided average total assets
EPS	Net profit attributable to shareholders divided by weighted average number of shares / units
BVPS	Equity book value divided by year end number of shares / units
Net debt per unit	Total financial debt less cash and cash equivalents divided by year end number of shares / units
P/E	Corresponding market capitalisation divided by net profit
P/BVPS	Corresponding share price divided by book value per share / unit
EV/Sales	Enterprise value divided by sales
EV/EBITDA	Enterprise value divided by EBITDA
EV/EBIT	Enterprise value divided by EBIT
Net gearing	Net financial debt divided by total equity
Debt/Equity	Total financial debt divided by total equity
Operating leverage	Y-o-Y growth in EBIT divided by y-o-y growth in revenue
Financial leverage	Y-o-Y growth in EPS divided by y-o-y growth in EBIT
Combined leverage	Operating leverage multiplied by financial leverage

Contacts:

Ivars Bergmanis
Head of Institutional Markets
Tel: +372 680 2720
Mob: +372 534 11114
ivars.bergmanis@lhv.ee

Sander Danil
Senior Analyst
Tel: +372 680 2793
sander.danil@lhv.ee

Valters Smiltāns
Analyst
valters.smiltans@lhv.ee

Date and time of sign-off: Thursday 23rd Dec, 18:00

Disclaimer

AS LHV Pank has made an arrangement with AUGA group ('AUGA'), AB whereby LHV's research analysts independently produce research reports on AUGA group and provide them to AUGA for the purposes of providing more information about AUGA to investors who are not customers of LHV. In October 2019, AUGA group selected AS LHV Pank as an advisor as well as arranger and manager for a bond programme. The first tranche of such bonds were issued at the end of 2019. AUGA was provided with a copy of this report, excluding the valuation section, prior to its publication in order to verify its factual accuracy and the report was subsequently changed.

AS LHV Pank has made an agreement with EfTEN Real Estate Fund III on commercial terms whereby LHV's research analysts independently produce research reports on EfTEN Real Estate Fund III. In turn, LHV is paid a fixed fee for a certain number of reports on an annual basis.

AS LHV Pank has made an arrangement with MADARA Cosmetics ('MADARA'), whereby LHV's research analysts independently produce research reports on MADARA and provide them to MADARA for the purposes of providing more information about MADARA to investors who are not customers of LHV. MADARA is listed on the Nasdaq Baltic First North List. In addition to being the certified adviser for MADARA, LHV is also the certified adviser for Linda Nektar ('LINDA') on Nasdaq Baltic First North on an ongoing fee-based arrangement

LHV's Group acts as a market maker /(and)/ liquidity provider for TKM1T, APG1L, TVEAT, HMX1R, LINDA, MDARA, DGR1R, and VIRSI.

All reports are produced by LHV's research department. In order to proactively prevent conflicts of interest, LHV has established several procedural and physical measures. Such measures include, among other things, confidentiality measures through separation, or so-called "Chinese walls", virtual and physical barriers to limit the exchange of information between different departments, groups or individuals within LHV Group. These measures are monitored by the compliance department of LHV. LHV does everything possible to avoid the conflict of interests but it cannot guarantee that conflict of interests situations do not arise at all.

LHV provides coverage on this company on a regular basis, therefore this report may include assumptions and findings laid out in greater detail elsewhere. If interested, clients may approach LHV for these previous reports.

In October 2021, AS LHV Pank was the Global Lead Manager for the IPO of AS DelfinGroup on Nasdaq Riga. AS LHV Pank has made an arrangement with AS Delfin-Group ('DelfinGroup'), whereby LHV's research analysts independently produce research reports on DelfinGroup and provide them to DelfinGroup for the purposes of providing more information about DelfinGroup to investors who are not customers of LHV. AS LHV Pank is also a market maker for the shares of DelfinGroup.

In November 2021 AS LHV Pank was the Global Lead Manager for the IPO of AS Hepsor on Nasdaq Tallinn. LHV Pank has made an arrangement with AS Hepsor, whereby LHV's research analysts independently produce research reports on Hepsor, and provide them to Hepsor, for the purposes of providing more information about Hepsor, to investors who are not customers of LHV.

In November 2021, AS LHV Pank was the Global Lead Manager for the IPO of Virši-A ('VIRSI') on Nasdaq Riga. AS LHV Pank has made an arrangement with VIRSI, whereby LHV's research analysts independently produce research reports on VIRSI and provide them to VIRSI for the purposes of providing more information about VIRSI to investors who are not customers of LHV. AS LHV Pank is also a market maker for the shares of VIRSI. LHV is also the certified adviser for VIRSI on Nasdaq Baltic First North on an ongoing fee-based arrangement.

This report is based upon information available to the general public. The information contained within has been compiled from sources deemed to be suitably reliable. However, no guarantee to that effect is given and henceforth neither the accuracy, completeness, nor the timeliness of this information should be relied upon. Any opinions expressed herein reflect a professional judgment of market conditions as at the date of publication of this document and are therefore subject to change without prior notice.

LHV reviews its estimates at least once during financial reporting period and upon most major financial events.

The report is not intended for public distribution and may not be reproduced, redistributed or published in any form whatsoever (in whole or in part) without prior written permission of LHV. The user shall be liable for any non-authorised reproduction or use of this report, whether in whole or in part, and such, reproduction may lead to legal proceedings. LHV does not accept any liability whatsoever for the actions of third parties in this respect. This information may not be used to create any financial instruments or products or any indices.

Neither LHV nor its directors nor its representatives nor its employees will accept liability for any injuries, losses or damages, direct or consequential caused to the reader that may result from the reader's acting upon or using the content contained in the publication.

The analyst(s) of this report hereby confirm that the views expressed in this report accurately reflect their personal views about the Companies and securities covered at the time of publication. The authors further confirm that they have not been, nor are nor will be receiving direct or indirect compensation in exchange for expressing any of the views contained in the report.

The analysts receive remuneration based on among others, the overall group revenues of LHV, including investment banking revenues. However, no compensation is based on a specific investment banking transaction. Trading with securities which are covered by a report is subject to strict compliance with internal rules governing own-account trading by staff members and third parties acting for the account of such staff members.

This research report is produced for the private information of recipients and LHV is not advising nor soliciting any action based upon it. If you are not a client of LHV, you are not entitled to this research report.

This report does not by any means constitute an offer or a solicitation, nor a recommendation to purchase or sell securities, commodities, currencies or other investments referred to herein.

This report does not constitute independent investment advice. LHV does not assume any fiduciary responsibility or liability for any consequence, financial or otherwise, arising from any investment or disinvestment decision taken on the basis of this report. It has been prepared without regard to the individual financial circumstances and objectives of those who receive this report. The securities referred to in this report may not be suitable for all investors.

Investors should independently and carefully evaluate every particular investment and seek the advice of a financial adviser if needed.

The analysis contained in this research report is based on numerous assumptions; different assumptions could result in materially different results. Any valuations, projections and forecasts contained in this report are based on a number of assumptions and estimates and are subject to contingencies and uncertainties. The inclusion of any such valuations, projections and forecasts in this report should not be regarded as a representation or warranty by or on behalf of LHV or any person within LHV that such valuations, projections and forecasts or their underlying assumptions and estimates will be met or realised.

Past performance is not a reliable indicator of future returns.

Where an investment is described as being likely to yield income, please note that the amount of income that the investor will receive from such an investment may fluctuate due to currency exchange rate moves and taxation considerations specific to that investor.

The information contained in this report does not constitute advice on the tax consequences of making any particular investment decision.

The fair value range has been issued for a 12-18 month period and has been derived from a weighted approach combining both DCF valuation and relative multiple comparisons. The relative multiple comparisons further incorporate additional weighting considerations relating to the underlying metrics and time forecast periods. Company specific inputs have been forecast and a list of peer companies has been compiled by the LHV analyst(s) writing this research commentary, whereas the consensus peer data has been obtained from Bloomberg. For more detailed information about the valuation methods please contact the analyst(s) using the contact details provided above.

For a useful summary of our coverage of this company, including the current sensitivity analysis, please refer to our latest monthly product: The Baltic Equity Companion. Alternatively you can also contact the analyst(s) using the contact details provided above.

Although we do not issue explicit recommendations, for regulation compliance purposes we adhere to the following synthetic structure:

- Buy- Expected return of more than 10% within 12-18 months (including dividends)

- Neutral- Expected return from -5% to 10% within 12-18 months (including dividends)
- Sell- Expected return less than -5% within 12-18 months (including dividends)

In the 12-month period preceding 30.09.2021 LHV has issued recommendations, of which 27.8% have been 'Buy recommendations', 21,5% as 'Neutral', 21.5% as 'Sell' and 29.1% as 'under review'. Of all the 'Buy recommendations' issued, 31.8% have been for companies for which LHV has provided investment banking services in the preceding 12-month period. Of all the 'Neutral recommendations' issued, 17.6% have been issued to companies for which LHV has provided investment banking services in the preceding 12-month period. The classification is based on the above structure.
For a list of recommendations that were disseminated during the preceding 12-month period, including the date of dissemination, the identity of the person(s) who produced the recommendation, the price target and the relevant market price at the time of dissemination, the direction of the recommendation and the validity time period of the price target, please contact the analyst(s) using the contact details provided above.