# Bluestar Adisseo Company

## 2021 Annual Report (Abstract)

# I. Important Notice

1. **This Abstract is based on the full text of the Annual Report. In order for a full understanding of the operating results, financial condition and future development planning of the Company, investors are kindly reminded to read the full text carefully that published on website of Shanghai Stock Exchange and other media designated by the China Securities Regulatory Commission (the "CSRC").**
2. **The Company's Board of Directors, Board of Supervisors, directors, supervisors, and senior management guarantee that, the content of the annual report is authentic, accurate and complete, and contains no false statement, misleading presentation or material omissions, and they assume individual and several & joint legal liabilities for the annual report.**
3. **All of the Company's directors have attended the meeting of the Board of Directors.**
4. **KPMG Huazhen LLP issued an unqualified audit opinion.**
5. **The Board of Directors has reviewed the profit distribution plan and the plan to use the statutory reserve to perform a capital increase in the reporting period.**

   As audited by KPMG Huazhen LLP, the net profit attributable to the shareholders of the Company at the consolidated level for the year ended December 31, 2021 amounted to RMB 1,471,648,465 and the accumulated profits available for distribution at parent company level as at December 31, 2021 amounted to RMB 595,231,861.

   Therefore, in order to share the Company's operation achievements with all shareholders, as well as enabling the Company for further development in consideration of the Company's actual operation situations, the Company proposes that: based on the Company's total share capital on registration date, the Company will distribute to all shareholders, cash dividend of RMB 1.78yuan per 10 shares (inclusive of tax). The total amount of the cash dividends to be distributed is RMB 477,378,427.

   If the total share capital of the Company changes before the date of registration, it is proposed to maintain the same distribution ratio per share and adjust the total amount of distribution accordingly. An announcement shall be released accordingly.

   The above proposal is still subject to the approval of 2021 Annual General Shareholders' Meeting.

# II. Company Profile and Financial highlights

1. **Brief Information on the Company's Shares**

| Brief information on the Company's stock | | | | |
|---|---|---|---|---|
| Type of | Stock exchange on which | Share abbreviation | Share code | Share abbreviation |

| | | | | |
|---|---|---|---|---|
| security | the securities are listed | | | before modification |
| Ordinary Shares | Shanghai Stock Exchange | Adisseo | 600299 | BNCM |

| | Secretary to the Board of Directors |
|---|---|
| Name | Mrs. Liang Qinan |
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## 2. Main businesses explanation of the company during the reporting period

Adisseo's businesses focus on research, development, production, and sale of feed additives for animal nutrition. Its main products are classified within 3 categories of products: Performance products, Specialty products, and Other Products for other animal feed additives.

Its performance, financial position and future are affected by the global macro economy. The global macro economy has experienced fluctuation in 2021 with rising trade barriers, increasing commercial and geopolitical tensions and further weighted with COVID-19 impact. However, significant disparity exists in different regions: for developed countries, economics declined due to low productivity growth and ageing demographics and for developing countries, economic growth performances tampered by COVID-19. Trade imbalances, exchange rate fluctuations and the new norm in the context of the COVID-19 pandemic also increase the uncertainties. The China/Asian African Swine Fever crisis has significantly impacted the Chinese meat sector. Even though the swine business is recovering. it is expected that the demand drivers will continue to sustain in the long run despite all challenges mentioned above.

Being a key player in the food value chain, Adisseo has shown its high resilience, which can be proven by the stable profit generation in the past 10+ years.

Adisseo has taken steps to improve its competitiveness, including tightening cost control, improving production technologies, increasing its production capacity, providing value-added services, and enriching product portfolio:

- The European platform expansion project successfully increased in total of 80 KT production capacity of the European plants during past two years by adding new complete production line in downstream unit (Burgos) and in upstream unit (Les Roches), and some adjustments in existing intermediate products units.
- The new powder methionine product, Rhodimet® A-dry, which is developed based on the liquid methionine ("HMTBA") technology, offering the benefits of this molecule to customers whose manufacturing process does not allow the use of liquid form of methionine, will further support Adisseo's position as a leading methionine supplier, offering the full-range of methionine sources valuable for feed producers and meeting their needs.
- In addition to production capacity, digitalization transformation projects have been successfully implemented in European plants and is now being transferred to Nanjing plant. DISPLAY 4.0, an industrial 4.0 project of Adisseo, has been awarded at the Chemistry

Initiative 2021 in the category of “Digitalization of Production Processes”. With Display 4.0, it will enable Adisseo’s industrial activities to improve safety, gain cost competitiveness, operation efficiency and better anticipation on future process development.

- Nanjing plant expansion project finalized smoothly in early 2019 enables Adisseo to increase its production capacity to 170KT per year and to improve further its manufacturing efficiency.
- The new 180KT liquid methionine plant in Nanjing is progressing well. Upon completion, the new plant will enable Adisseo to satisfy ever-increasing customer needs as well as to improve cost efficiency. Adisseo is taking all actions to meet and anticipate new environmental regulations. Despite COVID-19 situation, the project is well back on track. Up till now, civil work was completed and more than 99% construction has been completed with pre-commissioning phase started. The project is on track to start up around beginning of H2 2022.
- CAPEX expenditure


- Specialty products are under active development as a second business-pillar to enhance animal performance and health. The Company sees great growth potential in Specialty products and actively explores innovative products. The full integration of Nutriad into Adisseo allows a high complement to existing product range, the addressed species, and the target markets and enables Adisseo to offer an integrated solution and to provide more value to customers. With the acquisition of FRAmelco, synergies are being developed as well in terms of market, product and operations.
- Adisseo formed a joint-venture company called Calysseo together with Calysta, a US-based technology firm that has developed a proprietary Single Cell Protein and its innovative associated manufacturing process, in which Adisseo took a minority stake, in early March 2020 with the intention to develop this business opportunity on an exclusive basis in Asia. The first commercial FeedKind® Chongqing plant of Calysseo is progressing well with

around 90% completion rate and reached the milestone of 900,000 safe working hours. The start-up preparation of the project is progressing as planned.

- **"**In science, we trust" mindset is deeply rooted in Adisseo. Innovation is the heritage and a key competitive edge for Adisseo, both for the optimization of the processes of performance products (methionine, Vitamin A) as well as the development of new customer driven solutions for specialty products.
  - 2021 has been dedicated to feed the pipeline of new solutions on one side and the focus on key step-change technologies for the methionine process on the other side.
  - During COVID-19 period, more efforts have been spent on the optimization of R&I organization with 5 pillars identified to implement our strategy, which are Producing Tomorrow, Experimenting Tomorrow, Influencing Tomorrow, Winning Together and Aiming 4 Efficiency.
  - The new Adisseo Research & Innovation Center in China (Nanjing) started to be operational in early 2022, which will allow Adisseo to establish another global R&I center, aiming to become an "innovation engine" and accelerator in Asian markets. In Oct 2021, China R&I Center received Grant of Jiangsu Provincial Engineering Research Center, an important governmental recognition of Adisseo's China R&I capacity.
  - Reorganization of Reesearch & Innovation Center in France also started with two new R&I Centers in France are being established. One is in Lyon to regroup all chemistry, engineering, nutrition and analytical capabilities and the other is in La Rochelle to regroup and develop product formulation capabilities including encapsulation, drying, additives protection.
  - Adisseo also continues to develop its innovation pipeline of products and services. Rovabio Phyplus, Adisseo's new enzyme product was launched at the end of Oct 2021, representing a new cornerstone after 25-year continuous improving on feed digestibility solutions
- To complement the "internal" technologies and solutions developments, Innov'L@b (Adisseo open-innovation structure) is pursuing its investments in new venture through AVF fund.

Innov'L@b organization has been strengthened with more dedicated resources to amplify the scouting, evaluation, and investment capacity. On 24th June, Adisseo announced the signature of an agreement to take 25% participation from a capital increase at the company PigChamp pro-europa, a specialist in data analysis. The PigChamp software is a backbone for analysis, providing opportunity for continuous improvement in farm costs, healthcare, genetics, and feed. This investment represents for Adisseo a key milestone in the Precision Lifestock Farming (PLF) where Adisseo wants to invest and bring innovative solutions to the market, to support the sustainability of the animal production industry through efficiency, welfare, biosecurity, traceability.Main financial data

## 3. Main financial data

### 3.1 Main financial data for the latest three reporting periods

Unit: Yuan Currency: RMB

| **Main accounting data** | **2021** | **2020** | **Changes in comparison with the same period of last year (%)** | **2019** |
|---|---|---|---|---|
| Operating revenue | 12,868,681,379 | 11,910,430,976 | 8.05% | 11,135,489,839 |
| Net profit attributable to the shareholders of the Company | 1,471,648,465 | 1,351,600,222 | 8.88% | 992,382,202 |
| Net profit attributable to the shareholders of the Company after deduction of non-recurring profit or losses | 1,482,347,878 | 1,371,584,700 | 8.08% | 897,026,304 |
| Net cash flow arising from operating activities | 2,601,939,265 | 2,708,415,580 | -3.93% | 2,550,601,183 |
| | The end of 2021 | The end of 2020 | Changes in comparison with the end of last year (%) | The end of 2019 |
| Net assets attributable to the shareholders of the Company | 14,094,301,631 | 13,952,945,387 | 1.01% | 13,797,572,348 |
| Total assets | 20,905,892,136 | 20,617,633,075 | 1.40% | 21,127,258,090 |

| **Main financial ratios** | **2021** | **2020** | **Change of the present period over the same period of last year (%)** | **2019** |
|---|---|---|---|---|
| Basic earnings per share (Yuan/ share) | 0.55 | 0.50 | 10.00% | 0.37 |
| Diluted earnings per share (Yuan/ share) | 0.55 | 0.50 | 10.00% | 0.37 |
| Basic earnings per share after deduction of non-recurring profit or loss (Yuan/ share) | 0.55 | 0.51 | 7.84% | 0.33 |
| Weighted average return on net asset (%) | 10.54 | 9.97 | +0.57ppt | 7.24 |
| Weighted average return on net assets after deduction of non-recurring profit or loss (%) | 10.61 | 10.11 | +0.50ppt | 6.57 |

## 3.2 Main financial data on a quarterly basis for the reporting period

Unit: Yuan Currency: RMB

| | **Q1 2021** | **Q2 2021** | **Q3 2021** | **Q4 2021** |
|---|---|---|---|---|
| Operating revenue | 2,993,524,401 | 2,985,218,394 | 3,364,111,134 | 3,525,827,450 |
| Net profit attributable to the shareholders of the Company | 367,341,894 | 449,077,905 | 434,250,151 | 220,978,515 |

| | | | | |
|---|---|---|---|---|
| Net profit attributable to the shareholders of the Company after deduction of non-recurring profits and losses | 378,071,300 | 451,098,527 | 431,629,927 | 221,548,124 |
| Net cash flow from operating activities | 542,235,728 | 607,238,955 | 603,504,292 | 848,960,290 |

The increase of revenue in fourth quarter is mainly attributed to the strong growth in liquid methionine as well as continued stable growth in specialites, which contributed a best month ever in sales. The net profit attributable to shareholders of the Company in the fourth quarter is mainly impacted by sharply increased raw material and energy cost as well as accelerated research and innovation as well as business development in speciality business.

## 4. Share Change and Shareholders

### 4.1 Total number of shareholders and shares held by top ten shareholders at the end of the reporting period

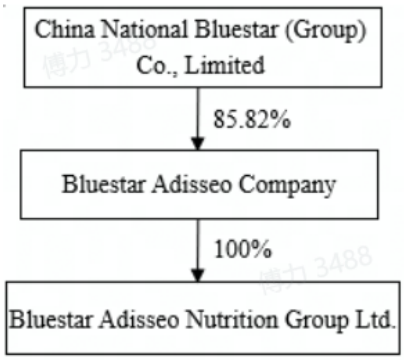
| | |
|---|---|
| Total number of shareholders by the end of reporting period | 32,397 |
| Total number of shareholders at the end of the last month before the date when the annual report was published | 32,342 |
| Total Number of Preferred Stockholders with reinstated voting rights at the end of reporting Period | 0 |
| Total number of Preferred Stockholders whose voting rights have been restored as of the end of the preceding month | 0 |

Unit: Share

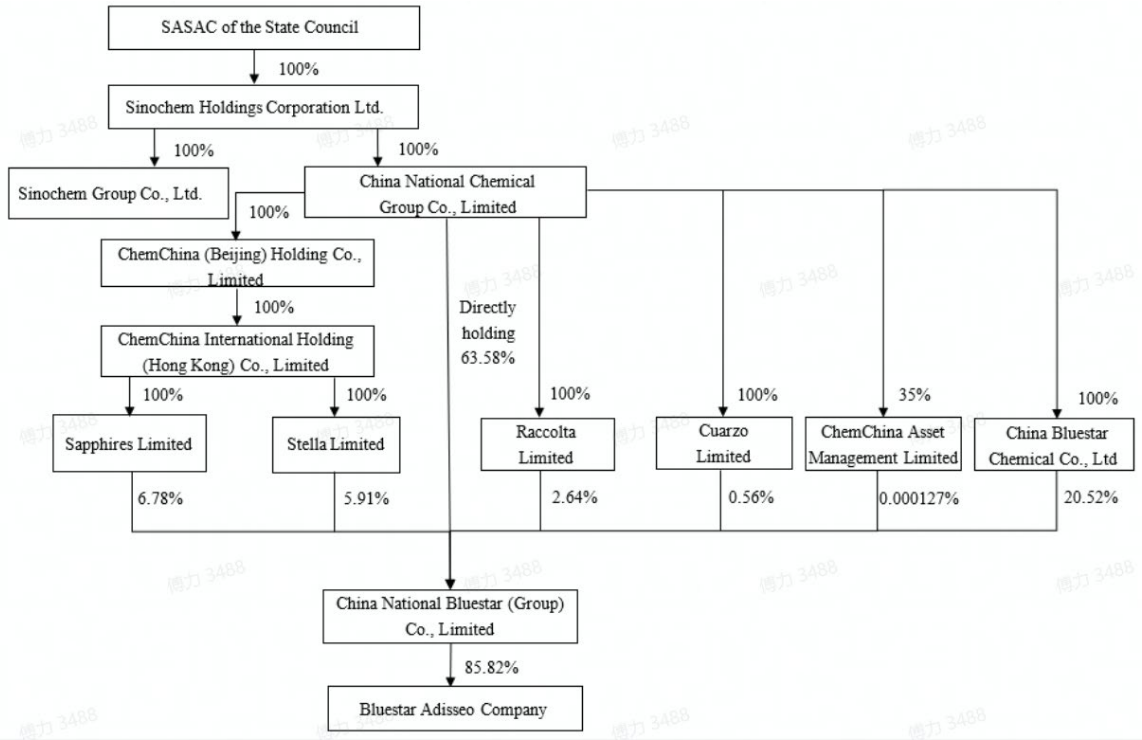
| Shares held by top ten shareholders | | | | | | | |
|---|---|---|---|---|---|---|---|
| Name of shareholder (full name) | Change in the reporting period | Number of shares held by end of the period | Proportion of shares held (%) | Number of shares with trading restrictions | Status of pledged or frozen shares | | Type of shareholder |
| | | | | | Share status | Number | |
| China National Bluestar (Group) Co., Ltd. | 0 | 1,709,387,160 | 63.74 | 0 | Fronzen | 13,520,000 | Stated owned legal entity |
| Blusstar-GTJA-19 Bluestar EB Guarantee and Trust Property Account | -49,132,413 | 592,078,113 | 22.08 | 0 | Not applied | 0 | Others |
| China Securities Finance Corporation Limited | 0 | 13,794,697 | 0.51 | 0 | Not applied | 0 | Stated owned legal entity |
| Guoxin Investment Co., Ltd | 12,322,300 | 12,322,300 | 0.46 | 0 | Not applied | 0 | Stated owned legal entity |

| Shares held by top ten shareholders | | | | | | | |
|---|---|---|---|---|---|---|---|
| Name of shareholder (full name) | Change in the reporting period | Number of shares held by end of the period | Proportion of shares held (%) | Number of shares with trading restrictions | Status of pledged or frozen shares | | Type of shareholder |
| | | | | | Share status | Number | |
| Hong Kong Central Clearing Limited | 984,807 | 9,842,330 | 0.37 | 0 | Not applied | 0 | Foreign legal entity |
| Jiangsu Juhe Chuangyi Emerging Industry Investment Fund LLP | 0 | 6,607,000 | 0.25 | 0 | Not applied | 0 | Others |
| Zhihua Xia | 5,470,318 | 5,470,318 | 0.20 | 0 | Not applied | 0 | Domestic natural person |
| China Electronic Investment Holding Company | 0 | 5,185,185 | 0.19 | 0 | Not applied | 0 | Others |
| Ageon-industrial Fund - Agricultural | 5,089,980 | 5,089,980 | 0.19 | 0 | Not applied | 0 | Others |
| Bank of China - China Pacific Life Insurance - China Pacific Life Stock | 0 | 3,737,262 | 0.14 | 0 | Not applied | 0 | Stated owned legal entity |

**4.2 Block diagram of the shareholding interest and control relationship between the Company and its controlling shareholders**



### 4.3 Block diagram of the shareholding interest and control relationship between the Company and its ultimate controlling shareholder




# III. Discussion and Analysis of the Operation

## 1. Analysis of results of operations of main businesses in the reporting period

### 1.1 Analysis of main business

### (1) Income & Cost Analysis

Unit: Yuan Currency: RMB

| Items | Amount of current period | Amount in the same period of last year | Change (%) |
|---|---|---|---|
| Operating revenue | 12,868,681,379 | 11,910,430,976 | 8.05% |
| Cost of sales | 8,474,548,883 | 7,390,596,338 | 14.67% |
| Selling and distribution expenses | 1,197,379,420 | 1,322,290,461 | -9.45% |
| General and administrative expenses | 644,385,051 | 631,397,760 | 2.06% |
| Financial expenses | 16,754,765 | 146,554,812 | -88.57% |
| Research and development expenditure | 340,578,020 | 301,295,739 | 13.04% |
| Net cash flow from operating activities | 2,601,939,265 | 2,708,415,580 | -3.93% |
| Net cash flow from investing activities | (2,442,785,182) | (2,300,841,296) | 6.17% |
| Net cash flow from financing activities | (630,676,581) | (3,027,032,547) | -79.17% |

### a. Analysis by industry, by product and by region

| Main operations by industry | | | | | | |
|---|---|---|---|---|---|---|
| By industry | Operating revenue | Cost of sales | Gross profit ratio (%) | Increase/de-crease in operating revenue on the same period of last year (%) | Increase/decrease in operating cost on the same period of last year (%) | Variation in GP ratio on the same period of last year |
| Health and Nutrition | 12,868,681,379 | 8,474,548,883 | 34% | 8% | 15% | -4ppt |

| Main operations by product | | | | | | |
|---|---|---|---|---|---|---|
| By product | Operating revenue | Cost of sales | Gross profit ratio (%) | Increase/decrease in operating revenue on the same period of last year (%) | Increase/decrease in operating cost on the same period of last year (%) | Variation in GP ratio on the same period of last year |
| Performance products | 9,071,719,595 | 6,346,140,705 | 30% | 6% | 14% | -4ppt |
| Specialty products | 3,164,456,683 | 1,625,080,988 | 49% | 12% | 15% | -1ppt |
| Other products | 632,505,101 | 503,327,190 | 20% | 12% | 28% | -10ppt |
| **Total** | 12,868,681,379 | 8,474,548,883 | 34% | 8% | 15% | -4ppt |

The Company has adopted new revenue standard and reclassed transporation expenses into cost of sales in 2021.

| Main operations by region | | | | | | |
|---|---|---|---|---|---|---|
| By region | Operating revenue | Cost of sales (*) | Gross profit ratio (%) | Increase/decrease in operating revenue on the same period of last year (%) | Increase/decrease in operating cost on the same period of last year (%) | Variation in GP ratio on the same period of last year |
| Europe / Africa/MO | 4,529,245,328 | | | 13% | | |
| North & Central America | 2,386,906,767 | | | 4% | | |
| Asia / Pacific (excluded China) | 2,011,982,844 | | | 4% | | |
| South America | 2,314,821,745 | | | 7% | | |
| China | 1,376,807,869 | | | 7% | | |
| Other | 248,916,826 | | | 8% | | |
| **Total** | **12,868,681,379** | | | **8%** | | |

**b. Explanation on main business by industry, by product and by regions**

(*) The Company discloses only operating revenue by region due to the fact that neither operating cost, nor gross margin are monitored by region.

**Due to adoption of new revenue standards, amount of cost of sales and gross profit of the**

**current period stated in 2020 policy for comparable purpose as below:**

| Main operations by industry | | | | | | |
|---|---|---|---|---|---|---|
| By industry | Operating revenue | Cost of sales | Gross profit ratio (%) | Increase/de-crease in operating revenue on the same period of last year (%) | Increase/decrease in operating cost on the same period of last year (%) | Variation in GP ratio on the same period of last year |
| Health and Nutrition | 12,868,681,379 | 8,118,509,977 | 37% | 8% | 10% | -1ppt |

| Main operations by product | | | | | | |
|---|---|---|---|---|---|---|
| By product | Operating revenue | Cost of sales | Gross profit ratio (%) | Increase/decrease in operating revenue on the same period of last year (%) | Increase/decrease in operating cost on the same period of last year (%) | Variation in GP ratio on the same period of last year |
| Performance products | 9,071,719,595 | 6,082,542,226 | 33% | 6% | 9% | -2ppt |
| Specialty products | 3,164,456,683 | 1,583,062,711 | 50% | 12% | 12% | No change |
| Other products | 632,505,101 | 452,905,040 | 28% | 12% | 15% | -2ppt |
| **Total** | 12,868,681,379 | 8,118,509,977 | 37% | 8% | 10% | -1ppt |

**Analysis of the factors impacting the income from sale of products**

| In comparison with 2020 | Change in Volume | Change in sales price | Exchange rate impact |
|---|---|---|---|
| Performance products | (194,633,515) | 1,229,156,274 | (485,647,606) |
| Specialty products | 532,648,405 | (20,532,333) | (171,323,045) |

Adisseo's operating revenue in 2021 totaled RMB 12,868,681,379 and increased by 8.05% at current EUR/RMB rate and increased by 13.7% at constant EUR/RMB rate, compared to 2020. Production, Sales and Inventory

**c. Cost analysis table**

Unit: Yuan

| By industry | | | | | | | |
|---|---|---|---|---|---|---|---|
| By industry | Cost composition items | Amount of current period | Proportion to the total cost of current period (%) | Amount of the same period of last year | Proportion to the total cost of the same period of last year (%) | Proportion of change in the amount of current period over the same period of last year (%) | Explanation |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Health and Nutrition | | 8,474,548,883 | 100% | 7,390,596,338 | 100% | 15% | Favorable raw material price |

| By product | | | | | | | |
|---|---|---|---|---|---|---|---|
| By product | Cost composition items | Amount of current period | Proportion to the total cost of current period (%) | Amount of the same period of last year | Proportion to the total cost of the same period of last year (%) | Proportion of change in the amount of current period over the same period of last year (%) | Explanation |
| Performance products | Raw materials, purchased equipment and consumables used (68%), Depreciation and amortization (12%), Other (20%) | 6,346,140,705 | 75% | 5,580,007,586 | 76% | 14% | Higher raw material price |
| Specialty products | Raw materials, purchased equipment and consumables used (75%), Depreciation and amortization (5%), Other (20%) | 1,625,080,988 | 19% | 1,416,009,850 | 19% | 15% | Higher production costs, Strong increase of sea freight and in some cases switch to air freight to avoid missing sales |
| Other products | Raw materials, purchased equipment and consumables used (43%), Depreciation and amortization (16%), Other (41%) | 503,327,190 | 6% | 394,578,902 | 5% | 28% | Purchasing price correlated with selling price |

**Due to adoption of new revenue standards, amount of cost of sales and gross profit of the current period stated in 2020 policy for comparable purpose as below:**

Unit: Yuan

| By industry | | | | | | | |
|---|---|---|---|---|---|---|---|
| By industry | Cost composition items | Amount of current period | Proportion to the total cost of current period (%) | Amount of the same period of last year | Proportion to the total cost of the same period of last year (%) | Proportion of change in the amount of current period over the same period of last year (%) | Explanation |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Health and Nutrition | | 8,118,509,977 | 100% | 7,390,596,338 | 100% | 10% | Higher raw material costs |

| By product | | | | | | | |
|---|---|---|---|---|---|---|---|
| By product | Cost composition items | Amount of current period | Proportion to the total cost of current period (%) | Amount of the same period of last year | Proportion to the total cost of the same period of last year (%) | Proportion of change in the amount of current period over the same period of last year (%) | Explanation |
| Performance products | Raw materials, purchased equipment and consumables used (71%), Depreciation and amortization (12%), Other (17%) | 6,082,542,226 | 75% | 5,580,007,586 | 76% | 9% | Higher raw material price |
| Specialty products | Raw materials, purchased equipment and consumables used (77%), Depreciation and amortization (5%), Other (18%) | 1,583,062,711 | 19% | 1,416,009,850 | 19% | 12% | Higher production costs |
| Other products | Raw materials, purchased equipment and consumables used (48%), Depreciation and amortization (18%), Other (34%) | 452,905,040 | 6% | 394,578,902 | 5% | 15% | Purchasing price correlated with selling price |

### d. Main customers and main suppliers

The total amount of sales revenue from Adisseo's top 5 customers amounted to RMB 869 million, accounting for 7% of the Group's total operating revenue.

N°1: RMB 227 million; N°2: RMB 170 million; N°3: RMB 163 million; N°4: RMB 155 million; N°5: RMB 154 million.

The total amount of purchasing from the Company's top 5 suppliers amounted to RMB 1,732 million accounting for around 32% of the Company's total purchase, in which the amount of purchasing from the related parties is null.

N°1: RMB 591 million; N°2: RMB 515 million; N°3: RMB 234 million; N°4: RMB 212 million; N°5: RMB 179 million.

**(2) Expenses**

Unit: Yuan

| Items | Amount of current period | Amount in the same period of last year | Change (%) |
|---|---|---|---|
| Selling and distribution expenses | 1,197,379,420 | 1,322,290,461 | -9.45% |
| General and administrative expenses | 644,385,051 | 631,397,760 | 2.06% |
| Financial expenses/(income) – net | 16,754,765 | 146,554,812 | -88.57% |

According to the accounting standards for Business Enterprises No. 14 - Revenue (CK [2017] No. 22) of the Ministry of Finance, the transportation expenses related to the sale of goods shall be recorded in the cost of sales. The Group reclass the transportation expenses related to the sale of goods originally recorded in the selling expenses to cost of sales from January 1, 2021, and the amount in 2021 is RMB 356,038,906.
The increase of selling and distribution expenses was mainly due to the increase of distribution related costs.

The decrease of financial expenses was mainly linked to less FX negative impact compared with last year.

**(3) R&D expenditures**

**a. Table of R&D expenditures**

Unit: Yuan

| | |
|---|---|
| Research and development expenditure recorded in expenses of current period | 400,376,412 |
| Research and development expenditure capitalized of current period | 5,256,834 |
| Total research and development expenditure | 405,633,246 |
| Proportion of total research and development expenditure to operating revenue (%) | 3.15% |
| % of capitalized R&D expenditure over total amount | 1.30% |

**b. Table of R&D headcount**

| | |
|---|---|
| R&D headcount as of December 31 2021 | 210 |
| % of R&D headcount over total headcount | 9% |
| **Education background of R&D headcount** | |
| Education background | Headcount |
| Doctor | 52 |
| Master | 61 |
| Undergraduate | 8 |
| Specialty | 75 |
| Highschool and below | 14 |
| **Age structure of R&D headcount** | |
| Age | Headcount |
| Under 30 years old (excluding 30 years old) | 35 |
| 30-40 years old (including 30 years old and | 91 |

| | |
|---|---|
| excluding 40 years old) | |
| 40-50 years old (including 40 years old and excluding 50 years old) | 42 |
| 50-60 years old (including 50 years old and excluding 60 years old) | 29 |
| 60 years old and beyond | 13 |

**c. Explanation**

The Research and development expenditure in the Income statement are decreased by a tax return effect about RMB 59,798,392.
Adisseo has reinforced its R&D resources globally by establishing a world-class Research & innovation center in Nanjing as well as reorganization of Research & Innovation Center in France. A 3-year research grant program has been lanuhced in 2021 to establish new strategic alliance with famous universities in different regions for the purpose to be close to the market needs and to provide timely support and innovation to all animal species.

**(4) Cash flow**

The Adisseo net cash flow from operating activities amounts to RMB 2,601,939,265 compared to RMB 2,708,415,580 last year.

The operating cash flow generated by Adisseo enabled to pay dividends for an amount of RMB 535,945,628, including dividends paid by BANG to non-controlling interests.

The increase in net cash flow related with investing activities in 2021 is mainly due to the CAPEX.

## 1.2 Analysis of assets and liabilities

### (1) Information of assets and liabilities

Unit: Yuan

| Items | As at December 31, 2021 | | As at December 31, 2020 | | % change | Explanation |
|---|---|---|---|---|---|---|
| | Amount | Percentage to total assets (%) | Amount | Percentage to total assets (%) | | |
| Derivative financial assets | 3,472,676 | 0 | 39,884,250 | 0 | -91 | Fluctuations is due to the impact of EUR appreciation on derivatives portfolio. |
| Other current assets | 284,255,626 | 1 | 429,844,279 | 2 | -34 | Mainly due to the decrease of income tax receivable |
| Long-term receivables | 133,593,515 | 1 | 54,602,143 | 0 | 145 | Mainly due to anti-dumping guarantee in the US |
| Construction in progress | 2,578,000,304 | 12 | 1,682,054,970 | 8 | 53 | Progress in the projects |
| Right-of-use assets | 186,061,870 | 1 | 0 | - | Not applicable | Adoption of new lease standard |
| Other non-current | | | 150,859,880 | | | Mainly due to decrease of |

| Items | As at December 31, 2021 | | As at December 31, 2020 | | % change | Explanation |
|---|---|---|---|---|---|---|
| | Amount | Percentage to total assets (%) | Amount | Percentage to total assets (%) | | |
| assets | 20,219,950 | 0 | | 1 | -87 | prepayment for fixed assets |
| Derivative financial liabilities | 51,938,522 | 0 | 2,118,600 | 0 | 2,352 | Fluctuations is due to the impact of EUR appreciation on derivatives portfolio. |
| Accounts payable | 1,658,897,253 | 8 | 1,182,547,468 | 6 | 40 | Mainly due to invoice not received yet |
| Taxes payable | 216,146,272 | 1 | 314,187,728 | 2 | -31 | Decrease of balance of tax to be paid |
| Current portion of non-current liabilities | 341,272,559 | 2 | 222,890,468 | 1 | 53 | Mainly due to IFRS 16 lease liabilities |
| Long-term borrowings | 15,669,920 | 0 | 61,636,147 | 0 | -75 | Mainly due to reimbursements |
| Lease liabilities | 140,055,604 | 1 | 0 | - | Not applicable | Adoption of new lease standard |
| Provisions | 98,548,382 | 0 | 0 | - | Not applicable | Mainly due to special provision linked to anti-dumping in the US |
| Other comprehensive income | -1,226,007,293 | -6 | -367,582,718 | -2 | 234 | Mainly due to translation difference |

**(2) Summary of overseas assets**

(1) Assets amount

Overseas assets amount was CNY 11,154,496,843, accounts for 53% of the Company's total Assets

(2) Description of overseas assets

As a global manufacturer of animal nutrition additives, Adisseo's sales and distribution network, production capacity, research and innovation strength are distributed all over the world. Our reliable and efficient production network is mainly composed of two production platforms located in Europe and China.

## 1.3 Industry analysis

**(1) Basic industry information**

**a. Basic information of the subdivided sectors industry and the companies' position in the industry**

- Industry trend

The animal feed additives industry is exposed to favorable global "megatrends" and is expected to grow continuously over the coming years. This growth is expected to be driven primarily by the industrialization of meat production, global population growth, wealth creation and global sustainability awareness and necessity. This should be the case in emerging markets, where consumers' dietary preferences are expected to shift towards protein-rich diets and in developed countries, where consumers' dietary preferences are shifting towards more healthy food concept.

Adisseo multi-product portfolio enhances its position with customers and differentiates our product offering from that of our competitors. Since Adisseo supplies a range of nutritional feed additives, it can provide value-added formulation advice to our customers and advise them with respect to their feed additive inclusion rate decisions.

Among which, methionine industry is further characterized by high entry barriers, such as high technological know-how, increasingly stringent regulations to obtain permits and authorizations, compliance with national and regional environmental and health and safety regulations, the ability to source key intermediates and the large capital investments required to develop new methionine production capacities.

The chemical process to manufacture methionine requires significant manufacturing expertise and process technology. Access to, or development of, such expertise and technology constitutes a significant barrier to entry in this market. Furthermore, technical, and commercial expertise and on-going investment in product and process innovation are critical factors to remain competitive.

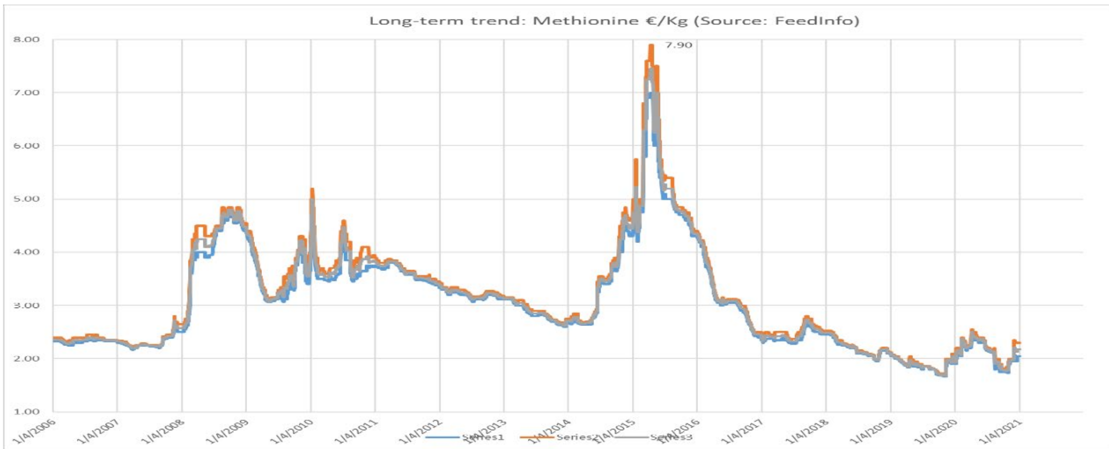
Based on industry practice, the initial capital expenditures to build a world-scale, greenfield chemical methionine production facility would require a large amount of capital investment and could require at least four years to permit, plan and construct. Furthermore, access to key intermediates and raw materials used for manufacturing methionine, such as MMP for which there is only a limited number of merchant suppliers, is critical to the establishment of new production facilities.

Thanks to the grasp of best available liquid methionine technology as well as our continuous optimization of the process, Adisseo has strong cost leadership and is among one of the few manufactures with lowest production cost.

In 2021, global supply is improving and most producers are recovering their normal production level after the disruption of production in Q1 or maintenance shutdown in Q2 or energy control in China in Q3. With the impact of the anti-dumping case in the USA and worldwide logistics constraints, the global supply of methionine from different producers is being restructured among regions. At the same time, higher key raw materials prices continue to put pressure on the production of methionine. In terms of logistics, we still do not see yet any improvement with big shipping delays, lack of containers/shipping space, congestion at ports, lack of truck drivers, this is putting more pressure on the global supply chain of methionine. And it is said this difficult situation of logistics could last until end of 2022 with maritime freight rates continuing to skyrocket. While global market demand is stable, with stronger demand especially on liquid methionine in some regions like Europe, North America and Latin America. Although there has been ever some market weakness in China and some Asian countries in Q3, the market in North America, Europe, Latin America and even the Middle East and Africa is proving resilient through 2021 because of strong market demand but tight supply.

Raw materials and energy costs are increasing significantly at the end of 2021. Negative impacts have been partly compensated by price increase as well as by rigorous cost management.

After an sharp increase in early 2021, prices have slightly decreased in Q3 with a unit price under 2.2 euro (powder); a stabilization and a rebound have been observed since october and then a sharp increase leading to some prices above 3 euro at the year-end of 2021.




- <u>Adisseo's Competitive landscape in each Business</u>

**<u>Methionine</u>**

Production capacity in the global methionine market is concentrated, large companies such as Evonik, Adisseo, Novus and Sumitomo Chemical (SCC) are key players. Due to population growth, economic development of emerging economies, and the modernization of the animal husbandry sector, the demand for methionine in the Asia-Pacific area, including China, continues to increase rapidly. China has one of the world's highest production volumes for pork, poultry, and livestock. Its animal husbandry sector continues to grow rapidly, which leads to rapid growth in demand for methionine, which was resilient in recent years despite Covid crisis. As the key methionine players continue to strengthen their global position currently, they have increased investments in Asia in the past years.

Robust demand has been seen in all regions. With a global market at 1.5 million tons in DLM equivalent, a normal market growth would mean an additional need of about 200 KT in 2 years.

Thanks to the successful capacity expansion project in Europe and debottlenecking project in China, Adisseo consolidates its second ranking leadership in global market share in 2021.

On July 29th, 2020, Novus International filed an antidumping petition against imports of methionine from France, Japan and Spain into the United States. The final decision in this proceeding led to a tax of 36% for liquid methionine produced in Spain and exported to the USA. Adisseo remains committed to fighting this trade action, for the benefit of our customers and downstream U.S. consumers and has decided to appeal against this decision. Regardless of the outcome of these cases, Adisseo is committed to remain a stable and reliable supplier of liquid methionine in the U.S.

market. Adisseo has decided to stop exporting powder methionine to the USA from France since this was a limited volume sold in the USA and to ship this volumes to other regions and countries.
In early 2022, recent macro-environment situation exacerbates the supply-demand and the global inflation surge, which impacts drastically the costs of raw material. Up till now and thanks to our agile and responsive sourcing ability, our production capabilities of our European plants are fully sustained. Adisseo is taking all actions to mitigate the raw material and energy cost increases, mainly adapted pricing and stringent cost saving plans.

**Vitamins**

Vitamins are widely used in medicine, food additives and animal feed additives. In recent years, as China's vitamin sector continues to grow, China has become a major producer and exporter of vitamins, and the production technology and market shares for vitamin C, vitamin E, vitamin B2 and vitamin D3 are top ranked globally. Adisseo's major competitors in the vitamins market mainly include DSM N.V., Zhejiang NHU and Zhejiang Pharmaceutical. The domestic vitamin A & E production in China is dominated by Zhejiang NHU and Zhejiang Pharmaceuticals Joint Stock Company.
The majority of Vitamin producers in China have all been impacted by raw material cost, energy and transportation cost increase with some production shutdown, which caused the tight supply in the market in Q4 2021.

**Specialty products**

**a) Feed Digestibility (Enzymes)**

Feed enzymes are included in feeds of all species to improve the utilization of energy and nutrients or to degrade several undesired components. These feed enzymes primarily improve the gut and performance of animals while considerably reducing feed and waste management costs.

The enzymes market needs extensive research & development, patented technology and capital expenditure for the production. Novozymes / DSM alliance, DuPont, Ab Vista, BASF, and Adisseo are the main players worldwide. In China, the market is mainly monopolized by several domestic companies, the market share of imported products continues to shrink. Main Chinese players are VTR, Vland Biotech, SunHY, Youtell, Challenge and Smistyle.

**b) Rumen-protected amino-acids**

The rumen-protected amino-acids market (for dairy cows and beef) mainly comprises of protected methionine and protected lysine and is a quite concentrated market. Adisseo main competitors in this field are Balchem, Ajinomoto, Evonik, Novus and Kemin.

**c) Animal Resilience (Health by Nutrition)**

This field includes different types of technologies and products like selenium, probiotics, sodium butyrate and phytogenics in Adisseo portfolio, to target all the main species on the market. There are a lot of players worldwide on these different solutions but the most important are ADM, Alltech, Angel Yeast, Arm & Hammer, Biomin, Calpis, Chr. Hansen, Cargill/Delacon/Diamond V, Danisco Animal Nutrition, DSM / Biomin, Evonik, EW Nutrition, Huvepharma, Kemin, Lallemand, Norel, Orffa, Perstorp, Phileo, and Phytobiotics, Trouw Nutrition / Selko.

**d) <u>Aquaculture</u>**

Alltech, Biomin, Kemin, Liptosa and Novus are among the main competitors of Adisseo in the Aquaculture specialties field.

**e) <u>Palatability</u>**

The palatants are mainly used in swine and ruminants' markets to improve feed intake. In addition to Adisseo, the market comprises of western companies (ADM, Lucta, Norel, Phodé) and Chinese companies (Dadi, Menon).

**f) <u>Mycotoxin Management</u>**

The addition of mycotoxin management products in the feed is useful for all the animal species around the world. Adisseo, Alltech, Biomin, EW Nutrition, Impextraco, Innovad, Kemin, Norel and Olmix are the main players on this market.

**g) <u>Feed preservation</u>**

Like for mycotoxin management products, the feed preservation additives are used widely for all species around the world. Adisseo main competitors on this market are Alltech, Anpario, BASF, Eastman, Kemira, FF Chemicals, Impextraco, Innovad, Kemin, Lucta, Norel, Perstorp and Selko.

**(2) Product and production**

**a. Main operating mode**

Adisseo still adapt its distribution network as per the evolution of flows of goods and production and sales.

Raw materials transportation is entirely managed by its suppliers.

For intermediary products Adisseo moved mainly by railway for safety and security reasons, 257,000 MT specifically in Europe in dedicated Tank rail car fleet.

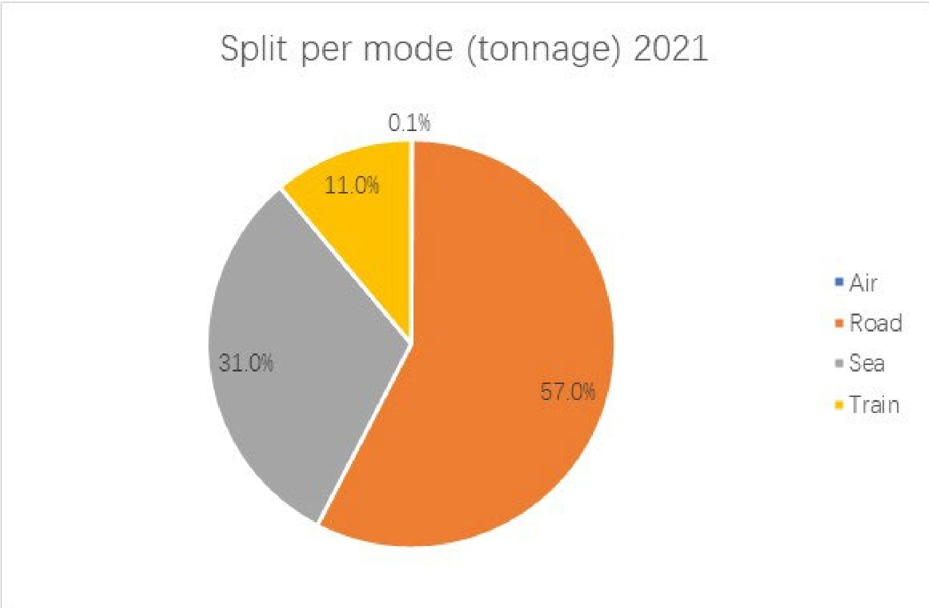
In 2021 for the finished products, Adisseo moved worldwide around 1,195,000 MT compared to 858,200 MT in 2020.

Adisseo ships the finished goods with all the transportation modes. The main one is the road transport.

The transport unit are various: truck, dry and reefer containers for packed goods and tank truck, rail tank cars, isotanks and parcel tankers for bulk.

Our transportation policy aims to give priority to the safest and least polluting means. To reduce our carbon footprint and save on our logistics costs, a new multimodal isotank transport mode has been implemented in some transportation routes.

Below the split per region and per mode in terms of number of shipments in 2021:


Adisseo's production materials and finished products inventories are stored in tanks for liquid products and traditional warehouses for the other products. Warehouses located in its factories are managed by its own people and warehouses outside its factories are all outsourced to logistics providers. For both outsourced and insourced warehouses, Adisseo has established policies regarding warehouse management. These policies are regularly audited and improved.

**b. Information of principal product**

| Products | Subdivided sectors industry | Main raw material | Field of Application | Factors affecting the price |
|---|---|---|---|---|
| Methionine, methionine hydroxyl analogue, vitamins, ammonium sulfate and sodium sulfate | Performance products | Propylene, gas, ammoniac, sulphur, methanol. E-oil | Animal Feeds | Energy and raw material costs, Brent oil and US dollar level. |
| Enzyme preparation, rumen-protected methionine, organic selenium additives, probiotics additives, appetite stimulants, mycotoxins protection, Butyrate additives, Feed quality, Aqua products | Specialty products | Enzymes: visco, cellulose, wheat flour. Rumen-protected methionine: propylene, gas, ammoniac, Sulphur, methanol, latex, isobutyl propionate Butyrate, Yeast, Saccharin, Carbonate Silica, organic selenium | Animal Feeds | Energy and raw material costs, Brent oil and US dollar level. |
| Carbon disulfide, sulfuric acid and services of processing powder | Other products | Gas, sulphur. | Industrial application | Energy and raw material costs, Brent oil and US dollar level. |

Adisseo is a major player in the feed ingredients industry sector. As such, the company portfolio represents a large variety of products that supports and promotes ingestion, absorption, assimilation of nutrients, growth, and health in livestock and aquaculture.

Adisseo benefits from accessing global markets thanks to effective Global Market Access organization and processes able to determine applicable technical regulations and manage product compliance to those regulations in this respect.

In the absence of harmonized standards and requirements as well as differing national standards across countries, feed business operators need to be aware of the regulations for each country they want to access. Some countries and jurisdictions impose specific technical restrictions such as product testing, certification, and shipment inspection requirements. In addition, the complex regulatory framework in some countries is constantly being updated and expanded.

In response to recent global sanitary or political crisis, trade measures are being tightened and spread and new nation-centric policies started to emerge as well.

In this complex technical and sanitary trade environment, Adisseo ensures products market access in more than 120 countries.

Adisseo acknowledges its responsibility for food and feed safety and consecutively control associated risks. During the manufacture of feed products, our company places the highest priority on the safety and health of our products and as such, places the highest emphasis on ensuring that each product is safe and fit for animal consumption and is following the current industry standards.

For this purpose, company management has decided to implement and maintain an integrated management system through its worldwide activities (manufacturing and trade), complying in general to the ISO 9001 standard, and in addition, where applicable, complying to the FAMI-QS or equivalently recognized Code of Practice.

Adisseo is recognized by stakes as a visible and credible global leader, as such the company holds membership and chair positions at major worldwide feed industry associations and committees in North America, Latin America, Europe, Asia Pacific and China.

### c. R&D and innovation

Adisseo R&D program is structured into 3 activities:

- Discovery – fundamental research, developing in partnership with academics or start-up companies;
- Innovation – testing and commercialization through world-wide R&D centers;
- Enhancement – ongoing enhancement for validated projects.

Adisseo continues to make significant efforts to reinforce its R&D programs.

Adisseo promotes a policy of reinforced and continuous research and innovation for its products, production processes as well as its businesses, work and organization methods. There are 8 research and development centers focused on several different areas such as analytical, nutrition, formulation, biotechnology, chemical processes, chemistry, formulation. During recent years, Innov'L@b, dedicated to disruptive technologies, has seen and analyzed several hundreds of POCs (Proof of Concepts) and build up a start up deal flow, and realized several investments up till now in the areas of contaminants detection, insect and parasite control, smartfarming and in the field of antibiotic replacement respectively.

### d. Manufacturing techniques

√ Applicable □ Not applicable

Adisseo's vertically integrated production process ensures a reliable supply for the key intermediates in methionine production and capturing the full value versus competition.

Main raw materials sourced externally are propylene, methanol, natural gas and sulphuric products. Some intermediates produced in excess are sold (sulphuric acid and carbon disulphide). The end products are powder and liquid methionine; sodium sulphate and ammonium sulphate constitute by products.

Adisseo manufacturing network for performance products includes seven plants: five in France, one in Spain and one in China. In the main regional markets, Adisseo associates to this network some toll-manufacturers for specific products or operations. From those plants, it delivers its finished products directly or indirectly to its customers in the world. It either ships direct to its customers or regional warehouses.

**e. Production capacity and operation situation**

√ Applicable ☐ Not applicable

| Main Plant or projects | New Plant/Capacity under construction (Ton) | Expected completion date |
|---|---|---|
| Nanjing plant expansion | 30,000 | Completed |
| New Nanjing Plant | 180,000 | 2022 |
| European platform expansion (including A-dry project) | 50,000 | Completed |
| European platform expansion | 30,000 | Completed |

**Change in capacity production during the reporting period**

To increase its liquid methionine production in Europe by 50KT per year. Adisseo announced in 2016 the European platform expansion project. This project has been completed by the end of 2019 as planned.

To meet the continuously growing demand of customers and thus consolidate its leadership role, the Board of Directors of Bluestar Adisseo Company has approved the construction of a new liquid methionine plant with a capacity of 180 KT per year, on January 16, 2019. The new facility locates adjacent to the existing Adisseo plant in Nanjing. The project is progressing, and it is expected to start in 2022 with the purpose to meet the ever-increasing demand on environment protection as well as the further optimization of production process.

Meanwhile, to support customer demand as well as to further enhance competitiveness of European plant, a debottlenecking project of another 30KT has been implemented and is now running at its full capacity.

**Adjustment and improvement on product line or product capacity structure**

After completion of debottlenecking project in current Nanjing plant, and synergies with Second Nanjing Plant, the new nameplate capacity of the Nanjing Plant may achieve 360 KT per year.

**Description of unusual production halts**

**(3) Purchasing of raw material**

**a. Basic information of principle raw material**

Unit: RMB

| Raw material | Purchasing pattern | Purchase value of raw material | Prices Fluctuation vs 2020 | Impact on operating cost of the company due to the fluctuation in the purchase price |
|---|---|---|---|---|
| Propylene 95% | Long-term contract | 1,259,673,199 | +39% | Increase in operating cost |
| Methanol | Long-term contract | 244,651,458 | +50% | Increase in operating cost |
| Sulphur | Long-term contract | 345,912,466 | +71% | Increase in operating cost |

**b. Basic information of principle energy used**

Unit: RMB

| Mainly used energy used | Purchase mode (channel) | Settlement (payment) method | Price fluctuation YOY | Purchased volume | Consumption volume |
|---|---|---|---|---|---|
| Natural Gas | Yearly Contract | Periodic settlement | +32% | 2.3 TWh | 2.3 TWh |
| Electricity | Yearly Contract | Periodic settlement | +1.2% | 0.33 TWh | 0.33 TWh |

Impact to operating cost from the change of price in principle energy used: increase operating cost

**(4) Description of sales of product**

**a. information of main business by subdivided sectors industry**

Information on Adisseo's main operations by business are specified above in Adisseo's "Income and Cost analysis". Refer to Section 4. II. Analysis of results of operations of main businesses in the reporting period.
Adisseo' industry is "Health and Nutrition".

**b. Basic information of main operating by sales channel**

Sales through distributors represent ca. 16% of Adisseo total turnover (2020: less than 15%). The main part is performed directly by Adisseo own commercial network.

**(5) Accounting policy of revenue recognition of every marketing channel**

For detail on the accounting policy of revenue recognition, please refer to the accounting policies described in Section 11.

**1.4 Analysis of investment**

**(1) Summary of Analysis of overall investments**

Further investment into Calysta Inc. Mar 2021
In March 2021, Adisseo and Calysta reached agreement that Adisseo invest USD 4.35mil into Calysta and obtained minority shares. The investment targeted to further support FeedKind alternative protein's development in Asia.

**(2) Financial Assets measured at fair value**

Adisseo holds derivative financial instruments to manage the effect of changes in currency exchange rates. Derivatives are not used for speculative purposes. For most of those transactions, the Group applies cash flow hedge accounting and documents, at the inception of the hedge, the type of hedging relationship, the hedging instruments, the nature and the term of the hedged item.

For further detail, please refer to Section 11 Part VII No.57 "Hedging" in Section 10.

### 1.5 Analysis of companies controlled by or invested in the Company

The following figures are based on financial information before elimination of the entities. If not specified, unit in RMB.

| Company Name | Registered/Subscribed Capital | Business | Total assets | Net assets | Net profit | Change |
|---|---|---|---|---|---|---|
| Adisseo France S.A.S | EUR 83,417,000 | R&D, production and distribution | 8,671,502,253 | 5,109,038,104 | 1,277,126,427 | *NA* |
| Bluestar Adisseo Nanjing Co., Ltd | RMB 3,037,640,586 | R&D, production and distribution | 5,392,841,030 | 4,484,796,735 | 113,357,425 | *NA* |
| Adisseo Life Science (Shanghai) Co., Ltd | USD 700,000 | Distribution & Sourcing | 1,246,901,671 | 687,833,024 | 37,296,659 | *NA* |
| Adisseo USA Inc. | USD 3,139,000 | Distribution | 843,190,680 | 380,609,978 | 51,046,520 | *NA* |
| Adisseo Brasil Nutriçao Animal Ltda | BRL 1,987,106 | Distribution | 419,015,234 | 31,664,302 | 34,646,926 | *NA* |

**Subsidiaries representing more than 10% of the Group's consolidated net profit:**

| Company Name | Adisseo France S.A.S | Bluestar Adisseo Nanjing Co., Ltd |
|---|---|---|
| Business | R&D, production and distribution | R&D, production and distribution |
| Revenue | 10,166,661,256 | 1,804,989,285 |

Adisseo France S.A.S is an important subsidiary of Adisseo: the main businesses of this company are R&D, manufacturing as well as distribution of protected methionine for ruminants and vitamin A produced at the Commentry plant, powder methionine produced at the Commentry and the Roussillon plants, upstream products of methionine at the Les Roches plant and also of liquid methionine produced at Burgos plant (Spain).

Bluestar Adisseo Nanjing Co., Ltd is the second largest entity within the Adisseo Group and deals with the production of liquid methionine and is building Research & Innovation Center in China.

# IV. Discussion and Analysis of the Operation

**1. The company shall, in accordance with the principle of importance, disclose the major changes in the company's operation during the reporting period, as well as the events that have a significant impact on the company's operation and are expected to have a significant impact in the future.**

Please refer to the main business analysis above.

**2. Description and reason of delisting of the Company’s shares**

☐ Applicable √ Not applicable

(In case of discrepancies between the English version and the Chinese version of this announcement, the Chinese version, officially published and disclosed, shall prevail.)