(Convenience translation into English from the original previously issued in Portuguese)

GRANBIO INVESTIMENTOS S.A.

Independent auditor's review report

Individual and consolidated interim financial information
As at March 31, 2023

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Contents

Management report

Dear Shareholders,

In line with its legal and bylaw provisions, the management of Granbio Investimentos S.A. Hereby submits for your appreciation the company's interim individual and consolidated financial statements along with the independent auditors’ report on the individual and consolidated interim financial information, prepared in accordance with the accounting practices adopted in Brazil for the period ended march 31, 2023.

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INDEPENDENT AUDITOR'S REVIEW REPORT ON THE INDIVIDUAL AND CONSOLIDATED QUARTERLY INFORMATION

To the
Management and Shareholders of
GranBio Investimentos S.A.
São Paulo - SP

Introduction

We have reviewed the individual and consolidated interim financial information of GranBio Investimentos S.A. ("Company"), included in the quarterly information, for the quarter ended March 31, 2023, which comprises the statement of financial position as at March 31, 2023, and the respective statements of profit or loss, comprehensive income (loss), changes in equity and cash flows for the three-month period then ended, as well as the corresponding notes.

The Company's Management is responsible for the preparation of the individual interim financial information in accordance with NBC TG 21 (R4), and for the preparation of the consolidated interim financial information in accordance with NBC TG 21 (R4) and with International Accounting Standard (IAS) 34 - Interim Financial Reporting, issued by the International Accounting Standards Board (IASB), as well as for the presentation of this interim financial information in accordance with the standards issued by the Brazilian Securities and Exchange Commission (CVM) applicable to quarterly information. Our responsibility is to express a conclusion on this interim financial information based on our review.

Scope of the review

We conducted our review in accordance with Brazilian and international standards for reviewing interim financial information (NBC TR 2410 and ISRE 2410 - Review of Interim Financial Information Performed by the Independent Auditor of the Entity, respectively). A review of interim financial information consists principally of applying analytical and other review procedures and making enquiries of and having discussions with persons responsible for financial and accounting matters. An interim review is substantially less in scope than an audit conducted in accordance with auditing standards, and does not provide assurance that we would become aware of any or all significant matters that might be identified in an audit. Accordingly, we do not express such an audit opinion.

Conclusion on the individual interim financial information

Based on our review, we are not aware of any fact that leads us to believe that the individual interim financial information included in the accompanying quarterly information has not been prepared, in all material respects, in accordance with NBC TG 21 (R4), applicable to the preparation of quarterly information, and presented in accordance with the standards issued by the Brazilian Securities and Exchange Commission.

Conclusion on the consolidated interim financial information

Based on our review, we are not aware of any fact that leads us to believe that the consolidated interim financial information included in the accompanying quarterly information has not been prepared, in all material respects, in accordance with NBC TG 21 (R4) and IAS 34, applicable to the preparation of quarterly information, and presented in accordance with the standards issued by the Brazilian Securities and Exchange Commission.

Emphasis

Investment realization stage

We draw attention to Note 1 to the individual and consolidated interim financial information, which describes that the Company and its controlled companies have reported recurring losses on their operations and accumulated loss in equity amounting to R$ 746,203 thousand (R$ 712,290 thousand as at December 31, 2022). This situation is mainly due to the ethanol plant of the controlled company Bioflex Agroindustrial S.A. currently being in the investment realization stage, whereby it may reach the capacity to continue as a going concern and consequently ensure the recoverability of investments made in property, plant and equipment and technology (intangible assets). Our conclusion is not qualified in respect of this matter.

Related-party transactions

We draw attention to Notes 7, 10 and 19 to the individual and consolidated interim financial information, which describe that the Company and its controlled companies recognize significant balances under related-party transactions, according to the conditions there described. Accordingly, the results of these operations could have been different if conducted with third parties. Thus, the aforementioned individual and consolidated interim financial information should be read in this context. Our conclusion is not modified in respect of this matter.

Other matters

Statements of value added

The accompanying interim financial information includes the individual and consolidated statements of value added for the three-month period ended March 31, 2023, prepared under the responsibility of the Company's Management and presented as supplementary information for the purposes of IAS 34. These statements were submitted to the same review procedures followed for the review of the quarterly information, for the purpose of concluding on whether they are reconciled with the interim financial information and accounting records, as applicable, and if their form and contents meet the criteria defined in NBC TG 09 – Statement of Value Added. Based on our review, we are not aware of any fact that would lead us to believe that these statements of value added were not prepared, in all material respects, in accordance with the criteria established in this standard and consistently with the individual and consolidated interim financial information taken as a whole.

The accompanying financial information has been translated into English for the convenience of readers outside Brazil.

São Paulo, May 10, 2023.

BDO RCS Auditores Independentes SS
CRC 2 SP 013846/O-1

Ricardo Vieira Rocha
Accountant CRC 1 BA 026357/O-2 - S - SP

GRANBIO INVESTIMENTOS S.A.

Statements of financial position
March 31, 2023 and December 31, 2022
(In thousands of Reais)

Assets	Note	Parent Company 03/31/23	Parent Company 12/31/22	Consolidated 03/31/23	Consolidated 12/31/22
Current					
Cash and cash equivalents	6	36,382	1	44,596	64,723
Short-term investments	7	7,419	7,186	7,419	7,186
Accounts receivable	8	-	-	730	2,032
Inventory	9	-	-	8,609	8,570
Advance to suppliers - related parties	10	-	-	-	12,979
Advances to suppliers		25	11	13,739	515
Recoverable taxes		6	6	1,830	1,803
Prepaid expense		92	46	2,725	1,730
		43,924	7,250	79,648	99,538
Non-current					
Short-term investments	7	64,045	61,875	-	-
Recoverable taxes		-	-	2,850	2,850
Judicial deposits		166	166	761	770
Investments	11	975,475	1,015,825	-	-
Property, plant and equipment	12	2,429	2,482	737,609	746,533
Intangible assets	13	-	-	568,222	580,562
		1,042,115	1,080,348	1,309,442	1,330,715
Total assets		1,086,039	1,087,598	1,389,090	1,430,253

Liabilities and equity	Note	Parent Company 03/31/23	Parent Company 12/31/22	Consolidated 03/31/23	Consolidated 12/31/22
Current					
Loans and borrowings	15	9,786	9,346	45,724	44,152
Trade payables	16	581	562	38,514	39,670
Tax and labor obligations		39	9	7,162	7,502
Other accounts payable		74	190	1,678	1,577
Deferred revenue	17	-	-	4,064	5,739
Related-party loans	10	92,919	44,363	4,637	-
		103,399	54,470	101,779	98,640
Non-current					
Loans and borrowings	15	121,060	123,030	303,174	298,101
Tax and labor obligations		-	-	7,028	7,081
Deferred income tax and social contribution	25.c	-	-	46,031	48,493
Provision for contingencies	18	-	-	167	-
Other accounts payable		1,859	1,879	3,216	3,449
Other accounts payable to related parties	10	-	-	65,406	63,502
		122,919	124,909	425,022	420,626
Equity					
Share capital	19.a	977,662	977,662	977,662	977,662
Advance for future capital increase	19.b	341,059	341,059	341,059	341,059
Capital reserves	19.c	108,175	108,175	108,175	108,175
Asset and liability valuation adjustments	19.d	179,028	193,613	179,028	193,613
Accumulated losses		(746,203)	(712,290)	(746,203)	(712,290)
Equity attributable to controlling shareholders		859,721	908,219	859,721	908,219
Noncontrolling interest	11.d	-	-	2,568	2,768
		859,721	908,219	862,289	910,987
Total liabilities and equity		1,086,039	1,087,598	1,389,090	1,430,253

See the accompanying notes to the quarterly individual and consolidated financial information.

Statements of profit or loss
Three-month periods ended March 31, 2023 and 2022
(In thousands of Reais)

		Parent Company		Consolidated	
	Note	03/31/23	03/31/22	03/31/2023	03/31/2022
Revenue from goods and services sold	20	-	-	1,558	7,114
Cost of goods sold and services rendered	21	-	-	(13,141)	(9,584)
Gross loss		-	-	(11,583)	(2,470)
Operating income and (expenses)					
Administrative and general expenses	22	(1,902)	(2,465)	(12,887)	(14,818)
Other operating income and (expenses)	23	-	-	15	(6,860)
Share of profit (loss) of equity-accounted investees	11.c	(31,422)	(31,093)	-	-
Net income before financial revenue (expenses)		(33,324)	(33,558)	(24,455)	(24,148)
Financial revenue	24	3,516	6,791	4,237	10,542
Financial costs	24	(4,105)	(4,417)	(14,630)	(19,042)
Financial expense, net		(589)	2,374	(10,393)	(8,500)
Profit/loss before income tax and social contributions		(33,913)	(31,184)	(34,848)	(32,648)
Current income tax and social contribution	25	-	-	(478)	-
Deferred income tax and social contribution	25	-	-	1,213	1,222
Loss for the period		(33,913)	(31,184)	(34,113)	(31,426)
Controlling interest		(33,913)	(31,184)	(33,913)	(31,184)
Noncontrolling interest		-	-	(200)	(242)
Loss for the period		(33,913)	(31,184)	(34,113)	(31,426)
Number of shares		108,133	108,133	108,133	108,133
Earnings (loss) per share		(0.3136)	(0.2884)	(0.3136)	(0.2884)

See the accompanying notes to the quarterly individual and consolidated financial information.

GRANBIO INVESTIMENTOS S.A.

Statements of comprehensive income (loss)
Three-month periods ended March 31, 2023 and 2022
(In thousands of Reais)

		Parent Company		Consolidated	
	Note	03/31/23	03/31/22	03/31/23	03/31/22
Loss for the period		(33,913)	(31,184)	(34,113)	(31,426)
Other comprehensive income to be reclassified to profit or loss in subsequent periods:					
Accumulated translation adjustment - CTA	11.c	(14,585)	(89,862)	(14,585)	(89,862)
Comprehensive income (loss) for the period		(48,498)	(121,046)	(48,698)	(121,288)
Profit attributable to:					
Owners of the company				(48,498)	(121,046)
Noncontrolling shareholders				(200)	(242)
Total comprehensive income				(48,698)	(121,288)

See the accompanying notes to the quarterly individual and consolidated financial information.

GRANBIO INVESTIMENTOS S.A.

Statements of changes in equity
Three-month periods ended March 31, 2023 and 2022
(In thousands of Reais)

		Attributable to owners of the Company							
	Note	Share capital	Advance for future capital increase	Capital reserve	Asset and liability valuation adjustments	Accumulated losses	Equity attributable to shareholders	Noncontrolling interest	Total equity
Balances at January 01, 2022		977,662	-	108,175	232,597	(739,472)	578,962	3,530	582,492
Accumulated translation adjustment - CTA	11.c	-	-	-	(89,862)	-	(89,862)	-	(89,862)
Loss for the period		-	-	-	-	(31,184)	(31,184)	(242)	(31,426)
Balances at March 31, 2022		977,662	-	108,175	142,735	(770,656)	457,916	3,288	461,204
Balances at January 01, 2023		977,662	341,059	108,175	193,613	(712,290)	908,219	2,768	910,987
Accumulated translation adjustment - CTA	11.c	-	-	-	(14,585)	-	(14,585)	-	(14,585)
Loss for the period		-	-	-	-	(33,913)	(33,913)	(200)	(34,113)
Balances at March 31, 2023		977,662	341,059	108,175	179,028	(746,203)	859,721	2,568	862,289

See the accompanying notes to the quarterly individual and consolidated financial information.

GRANBIO INVESTIMENTOS S.A.

Statements of cash flows
Three-month periods ended March 31, 2023 and 2022
(In thousands of Reais)

		Parent Company		Consolidated	
	Note	03/31/23	03/31/22	03/31/23	03/31/22
Cash flows from operating activities					
Loss for the period		(33,913)	(31,184)	(34,113)	(31,426)
Adjustments for:					
Depreciation	12	53	42	10,029	8,358
Amortization	13	-	-	4,493	4,707
Property, plant and equipment write-off		-	-	55	230
Write-off of intangible assets		-	-	-	720
Earnings on short-term investments		(2,403)	(1,454)	(233)	-
Share of profit (loss) of equity-accounted investees	11	31,422	31,093	-	-
Provision for leasing interest		-	(17)	-	(17)
Provision for interest on loans and financing	15.b	3,653	4,307	11,828	17,255
Deferred income tax and social contribution		-	-	(1,213)	(1,222)
Provision for impairment losses		-	-	-	6,369
Result for adjustments in the period		(1,188)	2,787	(9,154)	4,974
Change in assets and liabilities:					
Accounts receivable		-	-	1,283	(413)
Advance to suppliers		(14)	35	(13,224)	235
Advance to suppliers - related parties		-	-	12,979	-
Inventories		-	-	(39)	148
Recoverable taxes		-	130	(27)	199
Prepaid expenses		(46)	46	(1,040)	(2,265)
Labor contingencies		-	-	167	-
Other notes receivable		-	-	-	1
Judicial deposits		-	-	9	25
Other accounts receivable from related parties		-	-	1,904	(4,938)
Trade payables		19	(390)	(996)	(6,332)
Tax and labor obligations		30	24	(296)	6,239
Customer advances		-	-	-	141
Deferred revenue		-	-	(1,558)	(1,673)
Other accounts payable		(136)	17	(183)	76
Net cash used in operating activities		(147)	(138)	(1,021)	(8,557)
Interest on amortized loans, borrowings and debentures	15.b	(3,731)	(4,270)	(3,731)	(7,415)
Net cash used in operating activities		(5,066)	(1,621)	(13,906)	(10,998)
Cash flows from investing activities					
Discharge (placement) of short-term investments		36,125	-	-	-
Loans awarded to related parties		-	(6,513)	-	-
Increase in investments	11	(5,657)	(3,799)	-	-
Acquisition of property, plant and equipment		-	-	(1,286)	-
Acquisition of intangible assets		-	-	(6,976)	(577)
Net cash produced by (used in) investment activities		30,468	(10,312)	(8,262)	(577)
Cash flows from financing activities					
Loans from related parties		12,431	24,572	3,508	24,561
Payment of loans and borrowings - principal	15.b	(1,452)	(12,638)	(1,452)	(12,639)
Net cash from financing activities		10,979	11,934	2,056	11,922
Effect of exchange variance on cash and cash equivalents		-	-	(15)	(584)
Net increase (decrease) in cash and cash equivalents		36,381	1	(20,127)	(237)
Cash and cash equivalents at January 01		1	-	64,723	274
Cash and equivalents at March 31		36,382	1	44,596	37
Net increase (decrease) in cash and cash equivalents		36,381	1	(20,127)	(237)

See the accompanying notes to the quarterly individual and consolidated financial information.

GRANBIO INVESTIMENTOS S.A.

Statements of value added
Three-month periods ended March 31, 2023 and 2022
(In thousands of Reais)

	Parent Company		Consolidated	
	03/31/23	03/31/22	03/31/23	03/31/22
Revenue				
Sales of merchandise, goods and services	-	-	1,558	7,574
Other revenue	-	-	15	(6,860)
Impairment loss on trade receivables	-	-	-	-
	-	-	1,573	714
Inputs acquired from third parties				
Costs	-	-	(13,130)	(9,506)
Material, electricity, outsourced services and other operating expenses	(1,746)	(2,369)	(4,901)	(6,527)
	(1,746)	(2,369)	(18,031)	(16,033)
Gross value added	(1,746)	(2,369)	(16,458)	(15,319)
Depreciation and amortization	(52)	(42)	(4,830)	(5,226)
	(52)	(42)	(4,830)	(5,226)
Net value added	(1,798)	(2,411)	(21,288)	(20,545)
Transferred added value				
Share of profit (loss) of equity-accounted investees	(31,422)	(31,093)	-	-
Financial revenue	3,516	6,791	4,237	10,542
	(27,906)	(24,302)	4,237	10,542
Added value to be distributed	(29,704)	(26,713)	(17,051)	(10,003)
Distribution of added value				
Personnel				
Direct compensation	-	-	780	946
Benefits	43	42	357	564
Government Severance Indemnity Fund for Employees (FGTS)	-	-	70	103
	43	42	1,207	1,613
Taxes and contributions				
Federal	83	26	832	775
State	-	-	414	8
	83	26	1,246	783
Interest on third-party capital				
Interest on loans, borrowings and debentures	4,084	4,403	14,609	19,027
	4,084	4,403	14,609	19,027
Return on equity capital				
Profit (loss) withheld	(33,914)	(31,184)	(33,913)	(31,184)
Non-controlling interest	-	-	(200)	(242)
	(33,914)	(31,184)	(34,113)	(31,426)
Total	(29,704)	(26,713)	(17,051)	(10,003)

See the accompanying notes to the quarterly individual and consolidated financial information.

1. Reporting entity

GranBio Investimentos S.A. (“GranBio” or “Company”) is a privately held company having its registered office at the address Av. Professor Almeida Prado, 532 – Edif. Prédio, 50, Butantã, São Paulo, São Paulo state. It was founded on June 13, 2011. Its ultimate and direct parent company is GranInvestimentos S.A., which has its registered office at the address at Av. Faria Lima, 3144 – 3º andar, Jardim Paulistano, São Paulo, in São Paulo state.

GranBio is a holding company and its subsidiaries are mainly engaged in: (a) logistical and technological solutions for supplying biomass (a) creating viable flexible biorefineries that can be rolled out on an industrial scale to convert biomass into cellulose sugar, biofuels, biochemicals, nanocellulose and other ligno-cellulosic materials, in addition to electricity; (c) developing and licensing patents and intellectual property in the renewables sector using biomass as a raw material; and (d) generating and cogenerating renewable electric power.

Through its subsidiaries in the United States of America (USA), the Company develops and licenses clean technology to produce nanocellulose and biochemicals. GranBio LLC has upwards of 350 patents, including registered patents and applications, for various proprietary technologies it has developed. The Thomaston Research Center in Georgia, USA, has four integrated pilot plants that have been continuously operating for 11 years.

The Company has a strategic global licensing partnership with Maire Tecnimont for the sale of GP+ technology for cellulosic ethanol with an EPC option (engineering, procurement and construction) with a fixed-price guarantee.

GranBio entered a global alliance with Nuseed through 2034 for the technical development of sugarcane varietals as a source of biomass for second-generation biochemicals and fuels (2G). The alliance with Nuseed guarantees GranBio an exclusive cane-energy licensing contract in 2G biorefineries worldwide over.

The Company's quarterly information embraces the Company and its subsidiaries (jointly referred to as the ‘Group’).

Continued operation

As of March 31, 2023 the Company presented a consolidated net working capital deficiency of R$ 22,131 and accumulated losses of R$ 746,203.

Due to the business characteristics of a technology firm, Management is continuously evaluating the ability of the Company and its subsidiaries to keep generating sufficient cash flows to assure they continue as a going concern for the foreseeable future by either generating operating cash flows, disposing of assets, obtaining external funding or shareholder funding.

As regards the subsidiary BioFlex Agroindustrial S.A., the Group monitors projected short-term cash flow, which reflects the expected use of the recently implemented asset and the investments being made to achieve commercial capacity in an ongoing operation. Additionally, in January 2023 we engaged consultancy services from a specialized engineering company to develop a project to increase production capacity from 30 million liters per year to 60 million liters per year.

The Company's Business Plan is based on the following actions already carried out impacting estimated future cash flows:

- By way of its shareholders, on March 09, 2022 the parent company GranInvestimentos S.A. fully settled the working capital loan, which stood at R$ 12,637 as of December 31, 2021, reducing the Company's overall indebtedness and increasing the balance of the loan payable to the Parent company;
- On September 08, 2022, the indirect subsidiary BioFlex Agroindustrial S.A. and Atlântica Sementes S.A, of Nuseed Group, entered a strategic long-term alliance to expedite investments in Research and Development (R&D) and sales in global sugarcane markets. Atlântica Sementes S.A acquired the commercial and sugarcane processing assets from the indirect subsidiary BioVertis Produção Agrícola Ltda. and the R&D program in order to improve the value of the energy produced by innovating in bioenergy cane. GranBio will continue investing in cane energy by way of Nuseed Group and will be the exclusive license holder of cane energy as a raw material for 2G applications in the ligno-cellulosic field, such as cellulose sugar and lignin, 2G ethanol, biochemicals, Sustainable Aviation Fuels (SAF) and renewable materials worldwide. The agreement will allow the value chain for fuel biomass to become a powerful solution to guarantee a secure supply of renewable raw material on a large-scale without competing with food products.
- On November 10, 2022 and December 05, 2022, the indirect subsidiary BioFlex Agroindustrial S.A. entered a re-profiling agreement with Banco do Brasil S.A. and Bradesco S.A., respectively, which involved awarding the partial rebate of the balance payable on financing facilities and commission on guarantees secured from both institutions, as well as extending the grace period for the principal and interest. The total exposure as of March 31, 2023 is R$ 106,925 and R$ 75,189 respectively.
- On December 30, 2022, the indirect subsidiary BioFlex Agroindustrial S.A. and the then investee Companhia Energética de São Miguel dos Campos (CESM) entered a transaction by which CESM assumed the entire existing debt taken out by BioFlex Agroindustrial S.A. from the National Bank for Economic and Social Development - BNDES. This debt assumption will provide the Company and its subsidiaries with substantial debt relief, maintaining the long-term contract with CESM for the supply of energy and steam for the operations of the Company and its subsidiaries. On February 24, 2023, 50% of the CESM shares held by BioFlex were transferred to Usina Caeté S.A. without a gain or loss in the operation, as detailed in Note 5.a.
- Through its subsidiary AVAPCO, on January 26, 2023 GranBio obtained a new grant of up to USD 80 million from the U.S. Department of Energy (DOE) for the construction of an integrated 2G SAF (Sustainable Aviation Fuel) biorefinery at a demonstration scale, equivalent to 6 million liters per year, and a joint industrial-scale nanocellulose plant using wood and sugarcane trash as raw materials.

The planned actions that impact the future cash flow estimates are:

- Negotiating an agreement with Itaú to lengthen the debt with amortization 100% allocated to long-term and without the need for the initial disbursement of cash from current operations. The total exposure as of March 31, 2023 is R$ 35,938;
- The Company is implementing its capital restructuring plan through: (i) profiling the current debt with Banco Itaú; (ii) identifying a strategic partner to work alongside it on the development of its business plan for technology marketing and licensing, selling second generation ethanol and biochemicals, and an investing partner for the advanced jet fuel production plant (Sustainable Aviation Fuel – SAF); and (iii) negotiating cellulosic ethanol presale contracts as strategy of accelerating cash receipts to optimize its working capital balance and expedite investments to raise the capacity of BioFlex I.

As regards the operations of the indirect subsidiary BioFlex Agroindustrial S.A., due to price fluctuations in the energy market in the 2022/2023 crop year, Company management opted to direct inventory of straw biomass and bagasse to the production and sale of energy in the spot market of the then joint venture Companhia Energética de São Miguel dos Campos (CESM). This was a specific short-term strategy that will not be adopted in the new 2023/2024 crop year, in which the unit will resume focusing on the production of 2G ethanol for export, taking advantage of the current favorable biofuel prices.

Considering the business plan, Management believes that obligations will be paid as planned, and that the cash flow generation will be appropriate to meet its obligations in the foreseeable future.

However, if the business plan is unsuccessful, the Company's current parent companies have formally undertaken to continue supporting the Company in all actions required for continuing as a going concern, including the commitment to invest additional funds in an amount considered sufficient.

Based on its evaluation, Management has concluded that there is no significant uncertainty as to the Company's ability to continue as a going concern in the foreseeable future. Therefore, the Company and its subsidiaries' quarterly information has been prepared on a going concern basis.

2. List of subsidiaries

Direct subsidiaries

- BioEdge Agroindustrial Ltda.: Company that invests in commercial second-generation and biochemical plants;
- GranBio LLC: A US-based company engaged in investing in companies strategically related to the Company's business plan, by creating technologies for converting biomass into cellulose sugar for biochemicals and second generation ethanol, in addition to developing nanocellulose for a range of industries.

Indirect subsidiaries

- BioFlex Agroindustrial S.A.: Company engaged in the production of biomass, processing biomass for the production and sale of biofuel, electricity, biochemicals and pharmachemicals, technological research and development, sale of sugarcane straw, bagasse and biomass;
- GranBio Intellectual Property Holdings LLC: It holds all the patents and trade and technological secrets developed by GranAPI LLC and its subsidiaries;
- GranBio Conversion Technologies LLC: Company holds the assets of Thomaston, a demonstration plant for existing biomass conversion technologies. This company has a lease agreement for its assets for AVAPCO LLC;
- American Green + LLC: Company holding the sublicensing rights for technology owned by GranBio Intellectual Property Holdings LLC for converting biomass into cellulosic ethanol;
- AVAPCO LLC: Company holding the sublicensing rights for technology owned by GranBio Intellectual Property Holdings LLC for converting biomass into cellulosic ethanol. This company leases the Thomaston asset (a demonstration plant) from GranBio Process Conversion Technologies LLC to develop new technologies and provide client services.

- GranBio Services Inc.: A US-based company engaged in investing in companies strategically related to the Company's business plan. It is the holding company of the three companies below:

  - ✓ Alpena Biorefinery Inc.: Company providing water treatment services to the paper and pulp company Decorative Panels International, located in Alpena, MI, and the production and sale of molasses to other clients;
  - ✓ Alpena Prototype Bioref LLC: Nonoperating company owner of the Alpena Biorefinery land;
  - ✓ Alternative Bioprod Inv. LLC: Nonoperational company.

Joint ventures

- Companhia Energética de São Miguel dos Campos: Company dedicated to developing an integrated electricity and steam generation system running on biomass - cogeneration, electricity and steam supply and provision of services related to energy efficiency enhancement and generation. Most of the energy generated is to meet the demands of its shareholders and the surplus generation is fed into the electricity grid.

  On February 24, 2023, 50% of the CESM shares held by BioFlex were transferred to Usina Caeté S.A. without a gain or loss in the operation, as detailed in Note 5.a.

  Note 5 shows the percentage ownership interest in the direct subsidiaries, indirect subsidiaries and joint ventures.

3. Basis of preparation and presentation of the individual and consolidated quarterly statements

The Executive Board approved the preparation of the individual and consolidated quarterly financial statements on May 10, 2023.

The preparation of the individual and consolidated quarterly financial statements for the period ended March 31, 2023 includes the individual and consolidated quarterly financial information.

The Company's individual and consolidated quarterly information as of March 31, 2023 comprise the individual and consolidated quarterly information of the Company and its subsidiaries.

In the individual quarterly reports, the corresponding interest in the subsidiaries is presented using the equity method.

Statement of compliance

The Company's individual quarterly statements have been prepared and are being presented in accordance with the standard NBC TG 21 (R4) and the consolidated interim financial statements in accordance with NBC TG 21 (R4) and the international standard IAS 34 - "Interim Financial Reporting", issued by the "International Accounting Standards Board - (IASB) " and the standards issued by the Brazilian Securities Commission, applicable to the individual and consolidated quarterly statements. NBC TG 21 (R4) / IAS 34 requires the use of certain accounting estimates by the Company's Management. The quarterly financial statements have been prepared on the historical cost basis, except for certain financial assets and liabilities, which are measured at fair value. These Quarterly Statements do not include all the information and disclosures required in annual financial statements and should therefore be read in conjunction with the financial statements for the financial year ended December 31, 2022, which were prepared in accordance with IFRS and the accounting practices adopted in Brazil.

There were no changes to the accounting practices adopted in the period ended March 31, 2023 in relation to those applicable at December 31, 2022.

Details about the Group's principal accounting policies can be seen in Note 5.

Functional and presentation currency

The individual and consolidated quarterly statements are being presented in Brazilian Reais, which is the Company and its subsidiaries' functional currency, except the subsidiary GranBio LLC and its direct and indirect subsidiaries, whose functional currency is the US Dollar. All balances have been rounded to the nearest thousand, unless otherwise indicated.

Use of estimates and judgments

In preparing the individual and consolidated quarterly statements, Management has made judgments and used estimates that affect the application of the accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to the estimates are recognized prospectively.

a. Judgments

The information on judgments made in applying the accounting policies that have the most significant effects on the amounts recognized in the individual and consolidated quarterly statements is included in the following notes:

- Note 1 - Reporting entity (Going concern status): Management's evaluation of how the Group will produce and/or obtain capital to support operations over the next 12 months.
- Note 5 - Significant accounting policies (a. Consolidation basis): determines whether the Company actually holds the control of an investee;
- Note 10 – Related-party transactions: the shareholder GranInvestimentos S.A. bought back the debentures issued by BioFlex Agroindustrial S.A for R$ 1.00., and each debenture payable by BioFlex is being restated to market value.
- Note 11 - Investments: determines whether the Company has influence over an investee;
- Note 12 - Property, plant and equipment and Note 13 - Intangible assets - impairment test, key assumptions underlying the recoverable amounts. For further information see Note 14;
- Note 15 – Loans and borrowings: Compliance with the contractual terms of loans and borrowings;
- Note 20 - Net revenue from goods and services sold: the Group recognizes revenue when it transfers the control of a product or service to the client.

b. Uncertainties about assumptions and estimates

Information about assumptions and estimation uncertainties as of March 31, 2023 that have a significant risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the coming financial year are included in the following notes:

- Note 9 – Inventory: recoverable value of inventory based on market replacement cost, slow-moving products, expired products or products nearing the expiration date and products that do not meet quality standards, recorded as "Cost of products sold" and replacement cost in the market

- Note 12 – Property, plant and equipment: Assessing the need to conduct impairment tests on property, plant and equipment and key assumptions underlying recoverable amounts. For further information see Note 14;
- Note 13 – Intangible assets: main assumptions underlying the recoverable amounts, including the recoverability of development costs, licenses, intellectual property and goodwill deriving from the business combination; for further information see Note 14.

Measurement of fair value

A number of the Company's accounting policies and disclosures require the measurement of fair values, for both financial and non-financial assets and liabilities; disclosures are shown in Note 26.

When measuring the fair value of an asset or a liability, the Group used observable market data as far as possible. Fair values are categorized into different levels in a fair value hierarchy based on the inputs used in the valuation techniques as follows.

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices);
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Further information about the assumptions adopted in measuring fair values is included in Note 14.

4. Basis of measurement

The individual and consolidated financial statements have been prepared on the historical cost basis, except for the valuation of certain assets and liabilities, such as financial instruments, which are measured at fair value.

5. Significant accounting policies

The accounting policies set out below have been applied consistently to all periods presented in these individual and consolidated quarterly statements.

(In thousands of Reais)

a. Basis of consolidation

Percentage interest in investees

See below the percentage interest in the direct and indirect subsidiaries and joint ventures as of March 31, 2023 and December 31, 2022.

	Country	Percentage interest	
Direct subsidiaries		03/31/2023	12/31/2022
GranBio LLC	USA	100.00%	100.00%
BioEdge Agroindustrial Ltda.	Brazil	100.00%	100.00%
Indirect subsidiaries			
Bioflex Agroindustrial S.A.	Brazil	100.00%	100.00%
GranBio - Intellectual Property Holdings LLC	USA	97.00%	97.00%
GranBio Conversion Technologies LLC	USA	100.00%	100.00%
American Green + LLC	USA	100.00%	100.00%
AVAPCO LLC	USA	100.00%	100.00%
GranBio Services Inc.	USA	96.10%	96.10%
Alpena Biorefinery INC	USA	100.00%	100.00%
Alpena Prototype Bioref LLC	USA	100.00%	100.00%
Alternative Bioprod Inv. LLC	USA	100.00%	100.00%
Joint ventures			
Companhia Energética de São Miguel dos Campos – CESM (a)	Brazil	-	50.00%

(a) In FY 2022 the indirect subsidiary BioFlex entered into various negotiations with the then Joint Venture, Companhia Energética de São Miguel dos Campos (CESM): (i) On September 30, 2022 Company management authorized the sale of property, plant and equipment related to the thermoelectric plant; (ii) on December 30, 2022 the amount that the indirect subsidiary BioFlex had receivable from Companhia Energética São Miguel dos Campos (CESM) was fully amortized due to the agreement between the companies by which CESM assumed the entire existing debt contracted by the indirect subsidiary BioFlex from the National Bank for Economic and Social Development– BNDES; (iii) On February 24, 2023, 50% of the CESM shares held by BioFlex were transferred to Usina Caeté S.A. without a gain or loss in the operation, to cover the pass-through of the debt to BNDES.

(i) Subsidiaries

The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The quarterly statements of subsidiaries are included in the consolidated quarterly statements from the date on which control commences until the date on which control ceases.

The subsidiaries' quarterly information is recognized in the parent company's quarterly financial statements by the equity-income method.

(ii) Investments in equity-accounted investees

The Group's investments in entities valued by the equity method consists of interest in subsidiaries, in the individual financial statements.

(iii) Transactions eliminated on consolidation

Intra-group balances and transactions and any unrealized income and expenses arising from intra-group transactions are eliminated in preparing the consolidated quarterly statements. Unrealized gains driving from transactions with investees recorded by the equity income method are eliminated against the investment in proportion to the Group's interest in the investee. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment.

(iv) Loss of control

When the Group loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, and any related NCI and other components of equity. Any gain or loss arising from the loss of control is recognized in profit or loss.

(v) Non-controlling interest

NCI are measured initially at their proportionate share of the acquiree’s identifiable net assets at the date of acquisition. Changes in the Group’s interest in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

b. Foreign currency

(i) Foreign-currency transactions

Foreign-currency transactions are translated to the respective functional currencies of Company's entities at exchange rates at the dates of the transactions.

Cash assets and liabilities denominated in foreign currencies are translated into the functional currency at the exchange rate at the reporting date. Non-cash assets and liabilities that are measured at fair value in a foreign currency are translated to the functional currency at the exchange rate when the fair value was determined. Non-monetary items that are measured based on historical cost in a foreign currency are translated at the exchange rates at the date of the transaction. Foreign currency differences are generally recognized in profit or loss.

The investees’ statements of profit or loss and cash flow, not in the parent company’s functional currency, are translated to Brazilian currency at the average monthly exchange rate; assets and liabilities are translated at the closing rate and other equity items are translated at the historic rate.

The exchange variance on investments in subsidiaries and associated companies, not in the parent company’s functional currency, are recorded in equity as accumulated translation adjustments, and are transferred to profit or loss when investments are sold.

(ii) Overseas subsidiaries

The assets and liabilities of overseas subsidiaries, including goodwill and fair value adjustments arising on acquisition, are translated into Real at the exchange rates at the reporting date. The income and expenses of overseas subsidiaries are translated into Real at the exchange rates at the dates of the transactions.

Foreign currency differences arising from the translation of items into the presentation currency are recognized in other comprehensive income, and accumulated in the asset and liability valuation adjustments reserve in equity. If the subsidiary is a non-wholly owned subsidiary, then the relevant proportion of the translation difference is allocated to non-controlling interest.

c. Revenue

Revenue is measured based on the consideration specified in a contract with the customer. The Group recognizes revenue when it transfers control over a good or service to a customer or when the sale/concession of the license takes place.

The following topics provide information about the nature and timing of the satisfaction of performance obligations in contracts with customers, including significant payment terms, and the related revenue recognition policies:

- Service fee income: revenue is recognized over time as the services are provided. The stage of completion for determining the amount of revenue to recognize is assessed based on surveys of work performed. If the services under a single arrangement are rendered in different reporting periods, then the consideration is allocated based on their relative standalone selling prices. The stand-alone selling price is determined based on the list prices at which the Group sells the services in separate transactions. Invoices are issued monthly and are usually payable within 30 days;
- Resale of goods and Sugarcane and Energy Cane Vertix: revenue is recognized when the goods are delivered and have been accepted by customers at their premises. Customers obtain control of products when the goods are delivered to and have been accepted at their premises. This sales revenue is recognized when the performance obligation is fulfilled, i.e., when the promised product is physically transferred, and the consumer obtains control over this product;
- License revenue: the Company's license revenue is recognized at the specific point in time of the sale or its concession, since, at that time, the customer can determine how and when to use that license without needing the Group´s performance, meaning, that the Group will no longer carry out any activities that significantly affect the intellectual property of this license to which the customer has rights. Therefore, the license provides the right to use the Company's intellectual property as it exists when it is sold and granted and, for this reason, the revenue is recognized at that specific time of the sale and concession of the license, since its intellectual property does not change, and the customer obtains control at the time the license is granted;
- Revenue from collaboration agreements: revenue is deferred and recognized over time on a straight-line basis, according to the time periods determined in the contract between the parties. Revenue from the commercial partnership also includes recognizing revenue from the development of new products. The price and means of collection are determined in specific negotiations with each client.

d. Employee benefits

Short-term employee benefits

Short-term employee benefits are expensed as personnel expenses as the related service is provided. A liability is recognized for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee, and the obligation can be estimated reliably.

e. Financial income and costs

The Company's financial income and costs include:

- Interest income and expenses;
- The net gain or loss on financial assets at fair value through profit and loss;
- The foreign-currency gain or loss on financial assets and financial liabilities.

Interest income or expense is recognized using the effective interest method.

'Effective interest rate' means the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument at:

- Gross carrying amount of the financial asset; or
- At amortized cost of the financial liability.

When calculating the interest income or expense, the effective interest rate is charged on the gross carrying amount of the asset (when the asset is not impaired) or at the amortized cost of the liability. However, interest revenue is calculated by applying the effective interest rate to the amortized cost of the financial asset suffering impairment after initial recognition. If the asset is no longer impaired, the interest revenue is once again calculated on the gross amount.

f. Inventory

Carried at the lower of average cost of purchase or production and net realizable value. The Group considers the following when determining its provision for inventory losses: slow turnover, expired products or products nearing the expiration date and products that do not meet quality standards. Inventory losses are recorded as “Cost of products sold” and replacement cost in the market. As per Note 9, the inventories are comprised of raw materials and consumables necessary for the production of 2G ethanol.

g. Property, plant and equipment

(i) Recognition and measurement

Items of property, plant and equipment are measured at the historic cost of acquisition or construction, which includes the capitalized loan costs, less accumulated depreciation and any impairment losses.

If parts of an item of property and equipment have different useful lives, then they are accounted for as separate items (major components) of property and equipment. Any gain or loss on disposal of an item of property, plant and equipment (calculated as the difference between the net proceeds from disposal and the carrying amount of the property, plant and equipment) is recognized in profit or loss.

(ii) Subsequent expenditure

Subsequent expenses are capitalized to the extent it is probable that the future benefits associated with these expenses shall be transferred to the Group. Ongoing repairs and maintenance are expensed as incurred in profit or loss.

(In thousands of Reais)

(iii) Depreciation

Depreciation is calculated to amortize the cost of items of property, plant and equipment net of their estimated residual values using the straight-line method over their estimated useful lives, except for property, plant and equipment related to the operational plant that are depreciated based on the units-of-production method, being its outputs, projected for the next 40 years. Depreciation is recognized in profit or loss. The right-of-use asset is subsequently amortized using the straight-line method from the commencement date to the end of the lease term, unless the lease transfers ownership of the underlying asset to the Group by the end of the lease term or the cost of the right-of-use asset reflects that the Group will exercise a purchase option. In that case the right-of-use asset will be amortized over the useful life of the underlying asset. Land is not depreciated.

Items of property, plant and equipment are depreciated from the date they are installed and are available for use, or in the case of internally constructed assets, on the date construction is completed and the asset is available for use.

The estimated useful lives are (in years):

Property, plant and equipment	03/31/2023	12/31/2022
IT equipment	2 – 10	3 – 5
Vehicles	5	5
Furniture and fixtures	10 – 15	3 – 10
Lab plant and equipment	10 - 25	2 – 10
Agricultural plant and equipment	10 - 30	4 – 12
Improvements to rented property	30	25
Machinery, equipment and industrial facilities	5 - 60	2 – 40
Lease rights-of-use	10	10
Buildings and constructions	30 - 60	2 – 60

The depreciation methods, useful lives and residual values are reviewed annually and adjusted if appropriate.

The Company hired a specialized firm to assess the useful life of the key assets of its indirect subsidiary BioFlex, and the new useful lives began to be used in January 2023.

h. Intangible assets and goodwill

(i) Goodwill

Goodwill arising on the acquisition of subsidiaries is measured at cost less accumulated impairment losses.

(ii) Research and development

Expenditure on research activities is recognized in profit or loss as incurred.
Development expenditure is capitalized only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Group intends to and has sufficient resources to complete development and to use or sell the asset. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortization and any accumulated impairment losses.

(iii) Other intangible assets

Other intangible assets that are acquired by the Group and have finite useful lives are measured at cost less accumulated amortization and any accumulated impairment losses. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. Amortization is calculated on the cost of an asset or other equivalent cost, minus the residual value.

(iv) Subsequent expenses

Subsequent expenses are capitalized only when they increase the future economic benefits incorporated into the specific asset to which they relate. All other expenses are recognized in the statement of profit or loss as incurred.

(v) Amortization

Intangible assets are amortized on a straight-line basis in profit or loss over their estimated useful lives, from the date that they are available for use.

The estimated useful lives are as follows (in years):

Intangible assets	03/31/2023	12/31/2022
Software	5	5
Technology licenses and intellectual property	30	30
Development - Energy Cane	12	-

(vi) Technology licenses, intellectual property and goodwill deriving the business combination

The intangible assets are recorded at acquisition cost or fair value of the intangible assets acquired in a business combination, less accumulated amortization by the straight-line method, when applicable. These intangible assets are tested for impairment according to the accounting policy in Note 5 (k.ii). Goodwill is not amortized.

i. Financial instruments

(i) Recognition and initial measurement

Trade receivables and issued debt securities are initially recognized on the date they originate.

All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (except for trade receivables without a significant financing component) or financial liability is initially measured at fair value. A trade receivable without a significant financing component is initially measured at the operation price.

(ii) Classification and subsequent measurement

Upon initial recognition a financial asset is classified as measured at amortized cost or fair value through profit or loss - FVTPL.

Financial assets are not reclassified subsequently to initial recognition, unless the Group changes its business model to financial asset management. In this case all the affected financial assets are reclassified on the first day of the first period following the business model change.

A financial asset is measured at amortized cost if it meets both of the following conditions below and it is not designated as at FVTPL:

- It is maintained within a business model with the objective of maintaining financial assets in order to receive contractual cash flows; and
- Its contractual terms generate the cash flows on specified dates that constitute solely payments of principal and interest on the outstanding principal.

A debt instrument is measured at FVTPL.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Financial assets

These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced for impairment. Interest revenue, exchange variance gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss.

Financial liabilities

Financial liabilities were classified as measured at amortized cost or at FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for trading, is a derivative or is designated as such on initial recognition. Financial liabilities stated at FVTPL are measured at fair value and net income (loss), including interest, is recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Expenses on interest, exchange variance gains and losses are recognized in profit or loss. Any gain or loss resulting from derecognition is also recognized in profit or loss.

(iii) Derecognition

Financial assets

The Group derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or when the Group transfers the rights to receive the contractual cash flows of a financial asset in a transaction where essentially all the risks and rewards of ownership of financial assets are transferred or in which the Group neither transfers nor substantially retains all the risks and rewards of ownership of the financial asset nor retains control over the financial asset.

Financial liabilities

The Group derecognizes a financial liability when its contractual obligations are withdrawn, canceled, or expire. The Group also derecognizes a financial liability when its terms are modified and the cash flows from the modified liability are substantially different, in which case a new financial liability based on the modified terms is recognized at fair value.

Upon derecognizing a financial liability, the difference between the former carrying amount and the consideration paid (including assets transferred that do not flow through cash or undertaken liabilities) is recognized in profit or loss.

(iv) Offsetting

Financial assets and financial liabilities are offset and the net amount presented in the statement of financial position when, and only when, the Group currently has a legally enforceable right to offset the amounts and intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

j. Share capital

Common shares are classified as equity.

Incremental costs directly attributable to the issuance of common shares and share options are recognized as a deduction from equity. Income tax relating to transaction costs of an equity transaction is accounted for in accordance with CPC 32. /IAS 12.

k. Impairment

(i) Non-derivative financial assets

Financial instruments and contractual assets

The Group recognizes provisions for expected credit losses on:

- Financial assets measured at amortized cost; and
- Contract assets.

The Group measures the provision for loss at an amount equal to the lifetime ECL. The provisions for losses on trade receivables and contract assets are measured at an amount equal to the expected credit loss for the instrument’s entire life.

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When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating the lifetime ECL, the Group considers reasonable and supportable information that is material and available without excessive cost or effort. This includes quantitative and qualitative information and analyses based on the Company’s historic experience in credit evaluation and forward-looking information.

The Group assumes a financial asset's credit risk has risen substantially if it is more than 30 days overdue.

The Group considers a financial asset to be in default when:

- It is highly unlikely that the debtor will pay all of its credit obligations without resorting to actions such as enforcing the guarantee (if applicable) or
- The financial asset is more than 90 days overdue.

The Group considers that a debt security has a low credit risk when its credit risk rating is equivalent to the globally accepted definition of “investment grade”.

- Lifetime ECLs are ECLs that result from all possible default events over the expected life of a financial instrument.

- 12-month ECLs are ECLs that result from possible default events within the 12 months after the reporting date (or a shorter period, if the instrument's expected life is shorter than 12 months);

The maximum period considered to estimate the expected credit loss is the maximum contractual period during which the Group is subject to credit risks.

Measuring expected credit losses

Expected credit losses are estimates weighted by the credit loss probability. Expected losses are measured at present value based on all cash deficiencies (i.e. the difference between the cash flows owed to the Group according to the contract and the cash flows it expects to receive). Expected credit losses are discounted by the financial asset's effective interest rate, when applicable.

Impaired financial assets

At each reporting date, the Group evaluates whether the financial assets recorded at amortized cost are credit impaired. A financial asset is 'impaired' when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred. Objective evidence that a financial asset is impaired includes the following observable data:

- Significant financial difficulty of the issuer or borrower; violation of contractual clauses, such as default or being more than 90 days overdue;
- Restructuring of an amount due to the Group on terms that the Company would not consider otherwise;
- The probability that the borrower will enter bankruptcy or other type of financial reorganization.
- The disappearance of an active market for that financial asset because of financial difficulties.

Presenting the provision for expected credit losses in the statement of financial position

The provision for financial asset losses measured at amortized cost is deducted from the gross carrying amount of the assets, when applicable.

Write-off

The gross carrying amount of a financial asset is written off when the Group does not have a reasonable expectation to recover the financial asset in its entirety or in part. The Group expects no significant recovery from the amount written off. However, written-off financial assets can still be subject to credit enforcement to perform the Company procedures to recover the amounts due.

(ii) Non-financial assets

At each reporting date the Group reviews the carrying amounts of its non-financial assets (except biological assets and inventory) for signs of impairment. If any such indication exists, the asset's recoverable amount is estimated. Goodwill is tested for impairment annually.

(In thousands of Reais)

For impairment testing, assets are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows of other assets or CGUs (cash generating units). The goodwill acquired in a business combination is allocated to groups of CGUs that are expected to benefit from the synergies of the combination.

The recoverable value of an asset or cash generating unit is the higher of the value in-use and fair value less selling expenses. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or the CGU.

An impairment loss is recognized if the carrying amount of an asset or CGU exceeds its recoverable amount.

Impairment losses are recognized in profit or loss. They are allocated first to reduce the carrying amount of any goodwill allocated to the CGU (or group of CGUs), and then to reduce the carrying amounts of the other assets in the CGU (or group of CGUs) on a pro rata basis.

An impairment loss in respect of goodwill is not reversed. For other assets, an impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

l. Provisions

A provision is recognized when the Group has a legal or unofficial obligation as a result of past events, and it is probable that an outflow of economic benefits will be required to settle the obligation, which can be reliably estimated. When the Group expects a provision to be reimbursed, in part or full, for example as a result of an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is a virtual certainty. Expenses related to any provision are presented in the statement of profit or loss net of any reimbursement. Any increase in the obligation over the course of time is recognized as a financial expense.

m. Statement of value added

The Group prepared the statements of value added pursuant to technical pronouncement CPC 09 - Statement of value added. They are presented as an integral part of the quarterly statements in accordance with the BR GAAP applicable to publicly held companies, while under IFRS they represent additional information.

6. Cash and cash equivalents

	Parent company		Consolidated	
	03/31/2023	12/31/2022	03/31/2023	12/31/2022
Cash and banks - checking account	13	1	854	107
Short-term investments	36,369	-	43,742	64,616
Total	36,382	1	44,596	64,723

(In thousands of Reais)

Cash and cash equivalents include cash and bank deposits used to make and receive payments for the Company's operations in addition to short-term investments.

Short-term investments classified as current, with a maximum grace period of three months from investment to redemption, are used to manage immediate obligations. The yield on short-term investments is fixed income with an average of 102% of the CDI rate.

The Parent Company's short-term investment of R$ 36,369 originated out of another short-term investment at the subsidiary BioEdge. The investment at the Subsidiary was partially discharged and reallocated to the parent company.

7. Short-term investments

	Parent company		Consolidated	
	03/31/2023	12/31/2022	03/31/2023	12/31/2022
Short-term investments	71,464	69,061	7,419	7,186
Total	71,464	69,061	7,419	7,186
Current	7,419	7,186	7,419	7,186
Noncurrent	64,045	61,875	-	-

As of March 31, 2023 and December 31, 2022 the short-term investments consist solely of:

(i) Short-term investment made by the Company in 39,229 units of debenture BFLE11 for R$ 50,897 from Itaú Unibanco S.A. (Itaú). The restated balance as of March 31, 2023 including the financial restatement of the yield is R$ 64,045 (R$ 61,875 as of December 31, 2022). The seventh amendment was made to the private simple public debentures issuance deed on May 30, 2022, extending the maturity to December 2025. This debenture was initially an exclusive operation between the subsidiary BioFlex Agroindustrial S.A and Banco Itaú S.A. As a result of this investment made by the Company, part of BioFlex's debt under this debenture was transferred to the parent company itself. For the purpose of consolidation this amount is therefore eliminated from the item short-term investments and loans and borrowings;

(ii) Short-term investment realized by the Company in October 2022 in the amount of R$ 7,000, amounting to a restated R$ 7,419 as of March 31, 2023 (R$ 7,186 as of December 31, 2022), yielding 99.5% of the CDI rate. Investment made to create a guarantee to secure the FINEP loan.

8. Accounts Receivable

	Consolidated	
	03/31/2023	12/31/2022
Accounts receivable	730	2,032
Total	730	2,032

(In thousands of Reais)

Receivables schedule

See below an aging list for receivables:

	Consolidated	
	03/31/2023	12/31/2022
Falling due	-	1,287
1 to 30 days past due	-	50
91 to 360 days past due	49	2
More than 1 year past due	681	693
	730	2,032

9. Inventory

	Consolidated	
	03/31/2023	12/31/2022
Consumables (i)	5,797	5,797
Finished goods	25	25
Storeroom materials	2,787	2,748
Total	8,609	8,570

(i) Balance of various consumables used to produce 2G ethanol. One of the main inputs for producing 2G ethanol are the enzymes which are stored in a specific location with a suitable temperature so as not to lose their productive capacity. Part of the enzyme inventory is stored at third parties. R$ 4,753 or 286,000 Kg was held by third parties as of March 31, 2023 and December 31, 2022.

Inventory risks:

- Inventory counts are carried out annually and when necessary all differences between physical counts and accounting records are adjusted. However, in the last few years there have been no significant inventory adjustments.

Management valued the inventory based on its recoverable value at March 31, 2023 and December 31, 2022 as follows:

Movement	Provision
Balances at December 31, 2021	(212)
Usage of provision for losses	-
Balances at March 31, 2022	(212)
Balances at December 31, 2022	(182)
Usage of provision for losses	-
Balances at March 31, 2023	(182)

(In thousands of Reais)

10. Related-party transactions

The Company has transactions with its direct subsidiaries, indirect subsidiaries, joint ventures, parent companies and associated companies, in order to provide funds to maintain its operations. Such operations do not incur interest or have a maturity date, as agreed by the parties.

Transactions between related parties refer to loans for cash supply and commercial transactions related to cost-sharing and other commercial transactions.

As of March 31, 2023 and December 31, 2022, the balances break down as follows:

- Parent Company

		03/31/2023		12/31/2022	
	Ratio	Assets	Liabilities	Assets	Liabilities
Related-party loans					
GranBio LLC (i)	Subsidiary	-	32,175	-	33,044
BioEdge Agroindustrial Ltda. (ii)	Subsidiary	-	56,107	-	11,319
GranInvestimentos S.A. (iii)	Parent Company	-	4,637	-	-
Total		-	92,919	-	44,363
	Current	-	92,919	-	44,363

- Consolidated

		03/31/2023		12/31/2022	
	Ratio	Assets	Liabilities	Assets	Liabilities
Advance to suppliers					
Companhia Energética São Miguel dos Campos (iv)	Joint subsidiary	-	-	12,979	-
Total		-	-	12,979	-
Related-party loans					
GranInvestimentos S.A. (iii)	Parent Company	-	4,637	-	-
Total		-	4,637	-	-
Other accounts payable to related parties					
Shareholder investment fund (v)	Other	-	28,560	-	27,815
GranInvestimentos S.A. (v)	Parent Company	-	36,846	-	35,687
Total			65,406	-	63,502
Grand Total		-	70,043	12,979	63,502
	Current	-	4,637	12,979	-
	Noncurrent	-	65,406	-	63,502

(In thousands of Reais)

Operations affecting profit or loss for the periods:

	Ratio		03/31/2023	03/31/2022
Lease income				
Companhia Energética São Miguel dos Campos	Joint subsidiary	(vi)	-	4,969

(i) Interest-free loans taken out from GranBio LLC with a defined maturity
(ii) Denote the amounts in the Company's current account with its subsidiaries expected to be settled in the short-term. The loans are interest free and have no defined maturity date. In the first quarter of 2023 the short-term investment recorded at BioEdge was redeemed and sent to the Parent Company, as per Note 6. The operation was worth R$ 36,125.
(iii) Cash received from the Company's subsidiary to supply cash for operating activities.
(iv) Denotes the provision of electricity, steam, treated water and inputs to be used during the 2023/2024 crop season in the production process. As all the shares held by BioFlex in CESM (Joint Venture) had been transferred to Usina Caeté S.A., it was no longer presented as a related party. For further information see Note 5.a;
(v) Part of the debentures issued by the direct subsidiary BioFlex Agroindustrial S.A. were purchased in August 2021 by the shareholder GranInvestimentos S.A. for R$ 1.00 (22,771 units for a restated R$ 36,846) and by an investment fund of the ultimate beneficiaries of GranInvestimentos S.A. (18,000 units worth a restated R$ 28,560). As a consequence, the payable balance of the debentures was then reclassified as other accounts payable with related parties.
(vi) Billing related to the commercial lease of the boiler between the indirect subsidiaries BioFlex Agroindustrial S.A. and Companhia Energética São Miguel dos Campos – CESM. This invoicing was discontinued in October 2022, following the sale of property, plant and equipment related to the thermal power plant, as per Note 5 a.

Key management personnel compensation

	Parent Company		Consolidated	
	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Key management personnel compensation	(57)	(60)	(271)	(261)
Total	(57)	(60)	(271)	(261)

The amount paid as key management personnel compensation has been included in personal expenses disclosed in Note 22.

11. Investment

a. Breakdown of balances

	Parent Company	
	03/31/2023	12/31/2022
Direct and indirect subsidiaries	975,475	1,015,825
Total	975,475	1,015,825

(In thousands of Reais)

b. Direct investments

	Equity		Loss for the period	
	03/31/2023	12/31/2022	03/31/2023	03/31/2022
Investees				
BioEdge Agroindustrial Ltda.	439,648	464,182	(24,534)	(22,754)
BioVertis Produção Agrícola Ltda.	-	-	-	(2,184)
GranBio LLC	535,827	551,643	(6,888)	(6,155)

(In thousands of Reais)

Movement in investments

c. Direct subsidiaries

	Balance at 12/31/2022	Translation adjustment	Investment	Share of profit (loss) of equity-accounted investees	Balance at 03/31/2023
Subsidiaries					
BioEdge Agroindustrial Ltda.	464,182	-	-	(24,534)	439,648
GranBio LLC (i)	551,643	(14,585)	5,657	(6,888)	535,827
Total investments	1,015,825	(14,585)	5,657	(31,422)	975,475

(i) The amount of R$ 5,657 consists of financial contributions made in the investee based on its cash requirement.

	Balance at 12/31/2021	Translation adjustment	Investment	Share of profit (loss) of equity-accounted investees	Balance at 03/31/2022
Subsidiaries					
BioEdge Agroindustrial Ltda.	379,032	-	-	(22,754)	356,278
BioVertis Produção Agrícola Ltda.	19,642	-	-	(2,184)	17,458
GranBio LLC (i)	592,481	(89,862)	3,799	(6,155)	500,263
Total investments	991,155	(89,862)	3,799	(31,093)	873,999

(i) The amount of R$ 3,799 consists of financial contributions made in the investee based on its cash requirement.

(In thousands of Reais)

d. Summary of direct subsidiaries' equity accounts

Direct subsidiaries at March 31, 2023	Assets	Liabilities	Parent company interest	NCI	Equity
BioEdge Agroindustrial Ltda.	986,158	546,510	439,648	-	439,648
GranBio LLC	611,972	73,577	535,827	2,568	538,395

Direct subsidiaries at December 31, 2022	Assets	Liabilities	Parent company interest	NCI	Equity
BioEdge Agroindustrial Ltda.	1,045,969	581,787	464,182	-	464,182
GranBio LLC	634,009	79,598	551,643	2,768	554,411

(In thousands of Reais)

Direct subsidiaries	Net result 03/31/2023	Net result 03/31/2022
BioEdge Agroindustrial Ltda.	(24,534)	(22,754)
BioVertis Produção Agrícola Ltda.	-	(2,184)
GranBio LLC	(6,888)	(6,155)
	(31,422)	(31,093)

12. Property, plant and equipment

a. Breakdown of carrying amount

- Parent Company

	03/31/2023			12/31/2022
	Cost	Depreciation	Net	Net
IT equipment	837	(815)	22	24
Improvements to rented property	688	(39)	649	662
Furniture and fixtures	874	(871)	3	6
Administrative facilities	84	(84)	-	-
Right of use	2,081	(326)	1,755	1,790
	4,564	(2,135)	2,429	2,482

- Consolidated

	03/31/2023			12/31/2022
	Cost	Depreciation	Net	Net
IT equipment	3,320	(3,077)	243	153
Furniture and fixtures	1,732	(1,619)	113	118
Lab plant and equipment	5,385	(4,699)	686	753
Agricultural plant and equipment	39,924	(33,728)	6,196	6,493
Improvements to rented property	4,929	(2,706)	2,223	2,252
Industrial machinery, equipment and facilities	842,999	(161,203)	681,796	691,190
Property, plant and equipment in progress	5,122	-	5,122	3,942
Right of use	2,081	(326)	1,755	1,790
Land	2,192	-	2,192	2,247
Buildings and constructions	42,186	(4,903)	37,283	37,595
Total	949,870	(212,261)	737,609	746,533

(In thousands of Reais)

b. Movements in property, plant and equipment

- Parent Company

	Balance at 12/31/2022	Additions	Balance at 03/31/2023
Cost			
Improvements to rented property	688	-	688
Property, plant and equipment in progress	-	-	-
Furniture and fixtures	874	-	874
IT equipment	837	-	837
Administrative facilities	84	-	84
Right of use	2,081	-	2,081
Total	4,564	-	4,564
Depreciation			
Improvements to rented property	(26)	(13)	(39)
Furniture and fixtures	(868)	(3)	(871)
IT equipment	(813)	(2)	(815)
Administrative facilities	(84)	-	(84)
Right of use	(291)	(35)	(326)
Total	(2,082)	(53)	(2,135)
Total property, plant and equipment	2,482	(53)	2,429

	Balance at 12/31/2021	Additions	Balance at 03/31/2022
Cost			
Property, plant and equipment in progress	1,191	-	1,191
Furniture and fixtures	874	-	874
IT equipment	808	-	808
Administrative facilities	84	-	84
Right of use	2,081	-	2,081
Total	5,038	-	5,038
Depreciation			
Furniture and fixtures	(846)	(7)	(853)
IT equipment	(808)	-	(808)
Administrative facilities	(82)	-	(82)
Right of use	(152)	(35)	(187)
Total	(1,888)	(42)	(1,930)
Total property, plant and equipment	3,150	(42)	3,108

(In thousands of Reais)

- Consolidated

	Balance at 12/31/2022	Additions	Write-off	Exchange variance	Balance at 03/31/2023
Cost					
IT equipment	3,257	106	-	(43)	3,320
Furniture and fixtures	1,734	-	-	(2)	1,732
Lab plant and equipment	5,495	-	-	(110)	5,385
Agricultural plant and equipment	40,209	-	(285)	-	39,924
Improvements to rented property	4,929	-	-	-	4,929
Industrial machinery, equipment and facilities	846,263	-	-	(3,264)	842,999
Property, plant and equipment in progress	3,942	1,180	-	-	5,122
Right of use	2,081	-	-	-	2,081
Land	2,247	-	-	(55)	2,192
Buildings and constructions	42,284	-	-	(98)	42,186
Total	952,441	1,286	(285)	(3,572)	949,870
Depreciation					
IT equipment	(3,104)	(11)	-	38	(3,077)
Furniture and fixtures	(1,616)	(6)	-	3	(1,619)
Lab plant and equipment	(4,742)	(61)	-	104	(4,699)
Agricultural plant and equipment	(33,716)	(278)	266	-	(33,728)
Improvements to rented property	(2,677)	(29)	-	-	(2,706)
Industrial machinery, equipment and facilities	(155,073)	(9,343)	-	3,213	(161,203)
Right of use	(291)	(35)	-	-	(326)
Buildings and constructions	(4,689)	(266)	-	52	(4,903)
Total	(205,908)	(10,029)	266	3,410	(212,261)
Total Property, plant and equipment	746,533	(8,743)	(19)	(162)	737,609

(In thousands of Reais)

	Balances at 12/31/2021	Addition	Write-off	Exchange variance	Balances at 03/31/2022
Cost					
IT equipment	3,489	-	(253)	(229)	3,007
Vehicles	20	-	(10)	-	10
Furniture and fixtures	2,020	-	(79)	(18)	1,923
Lab plant and equipment	6,433	-	(98)	(675)	5,660
Agricultural plant and equipment	43,601	-	(497)	-	43,104
Improvements to rented property	9,543	-	-	-	9,543
Machinery, equipment and facilities	1,015,660	-	(135)	(20,032)	995,493
Property, plant and equipment in progress	5,761	-	-	-	5,761
Right of use	2,081	-	-	-	2,081
Land	2,394	-	-	(341)	2,053
Buildings and constructions	44,925	-	-	(595)	44,330
Total	1,135,927	-	(1,072)	(21,890)	1,112,965
Depreciation					
IT equipment	(3,481)	(1)	253	230	(2,999)
Vehicles	(20)	-	10	-	(10)
Furniture and fixtures	(1,827)	(19)	76	18	(1,752)
Lab plant and equipment	(4,922)	(178)	72	589	(4,439)
Agricultural plant and equipment	(31,996)	(1,089)	311	-	(32,774)
Improvements to rented property	(3,299)	(63)	-	-	(3,362)
Machinery, equipment and facilities	(192,583)	(6,714)	120	18,738	(180,439)
Right of use	(152)	(35)	-	-	(187)
Buildings and constructions	(4,680)	(259)	-	277	(4,662)
Total	(242,960)	(8,358)	842	19,852	(230,624)
Total Property, plant and equipment	892,967	(8,358)	(230)	(2,038)	882,341

(In thousands of Reais)

Property, plant and equipment in progress

As of March 31, 2023 and December 31, 2022 the balance of property, plant and equipment in progress consists of expenses to upgrade consumables processing and feeding machinery and upgrades to the dedusting system. Consultancy services were also engaged to design the project to expand the 2G ethanol plant's production capacity from 30 million to 60 million liters / year. The expansion expenses began to be made in the first quarter of 2023.

Guarantees

The residual carrying amount of the property, plant and equipment securing loans and borrowings amounts to R$ 723,469 at March 31, 2023. For further information see Note 15 c.

Write-off of assets

As of March 31, 2023 the amount of R$ 19 consists of a write-off due to the sale of a vehicle. For further information see Note 23.

13. Intangible assets

- Consolidated

	Software	Development (Yeast)	Development (Energy Cane)	Licenses and intellectual property	Goodwill	Total
Balances at December 31, 2021	116	28,500	-	494,883	129,931	653,430
Additions	-	-	-	577	-	577
Write-off	-	(495)	-	(225)	-	(720)
Amortization (a)	-	(308)	-	(4,399)	-	(4,707)
Exchange variance	-	-	-	(73,943)	(19,621)	(93,564)
Balances at March 31, 2022	116	27,697	-	416,893	110,310	555,016
Balances at December 31, 2022	111	11,890	-	447,077	121,484	580,562
Additions	-	-	6,484	492	-	6,976
Amortization (a)	-	-	(135)	(4,358)	-	(4,493)
Exchange variance	-	-	-	(11,626)	(3,197)	(14,823)
Balances at March 31, 2023	111	11,890	6,349	431,585	118,287	568,222

(a) Amortization expenses were recognized in administrative and general expenses.

- Development (yeast) - Development of genetically modified yeast to ferment cellulose sugar in the amount of R$ 11,890 as of March 31, 2023 and March 31, 2022.
- Development (cane energy) - GranBio entered a global alliance with Nuseed Group through 2034 for the technical development of sugarcane varietals as a source of biomass for second-generation biochemicals and fuels (2G). The alliance with Nuseed guarantees an exclusive cane-energy licensing contract in 2G biorefineries worldwide over. R$ 6,484 (USD 1,250) was paid in January 2023, under the partnership's initial stage.

- Licenses and intellectual property ownership- Amounts denoting the development of intellectual property and licensing related to nanocellulose and biorefinery technology and trade and industrial secrets. R$ 368,086 was recognized on March 31, 2019 as intangible assets identified by Management in the business combination between Granbio LLC and the companies GranAPI LLC, API- Property-Intelectual Holdings LLC, American Process Conversion Technologies LLC and American Process Conversion Technologies Holdco LLC. The number of technology and intellectual property licenses was calculated based on the expected revenue generated by selling licenses to third parties, the existing commercial pipeline and prospects for growth in the number of projects for converting biomass into cellulosic ethanol, biochemicals and nanocellulose.
- Goodwill – Denotes expected future earnings generated for the companies GranAPI LLC, API-Propriety Intellectual Holdings LLC, American Process Conversion Technologies LLC and American Process Conversion Technologies Holdco LLC, as a result of their technology. Management used the relief-from-royalty method to estimate the fair value of these companies' technology. This method assumes that instead of paying for a property, a company is willing to pay to exploit the benefits related to this class of assets. This goodwill is not deductible for tax purposes.

14. Impairment analysis

a. Property, plant and equipment

At each annual reporting date, the Group checks whether there is evidence that the carrying amount of a definite-lived asset has incurred impairment. If there is evidence of impairment, a test is carried out to quantify the asset's recoverable value. The recoverable value of an asset is determined by the higher of: (a) its fair value less estimated costs to sell and (b) its value in use. The value in use is measured based on the discounted cash flows (before tax) deriving from the continuous use of an asset until the end of its useful life.

Although management understands that there is evidence that its property, plant and equipment has suffered impairment, given that the fair value less costs to sell indicates that the construction of a plant similar to that of BioFlex Agroindustrial S.A. would result in values higher than the depreciated carrying amount, due to the short operational history resulting from strategic decisions made by Management, which considered micro and macroeconomic issues for past periods and investments in innovation, the Group also performs an impairment test on the value in use for the property, plant and equipment intended for the production of 2G ethanol at BioFlex Agroindustrial S.A., substantially developed based on internal management assumptions.

Management's assessment shows that in the last year there are no indications of a significant change in their calculations and analyses that could lead to the need to recognize impairment losses on property, plant and equipment. However, if current or future results are not consistent with the estimates and assumptions used in the estimated future cash flows and determination of the property, plant and equipment's fair value, the Company may be exposed to losses.

On March 31, 2023, the Group assessed its property, plant and equipment and did not identify any evidence of impairment.

(In thousands of Reais)

b. Intangible assets and goodwill

Goodwill resulting from business combinations and indefinite-lived intangible assets are tested for impairment at least once a year, in December.

As regards the impairment test for the subsidiary GranBio LLC, on December 31, 2022 the Group used a 10-year cash flow plus perpetuity, which reflects the expected use of the recently implemented asset and the investments being made to achieve commercial capacity in an ongoing operation based on financial estimates approved by Senior Management.

The licenses' sale prices were determined based on evidence from target markets. The opex projection was compiled based on the history of costs incurred adjusted to an industrial capacity level of use.

On March 31, 2023, the Group assessed its intangible assets and did not identify any evidence of impairment.

15. Loans and borrowings

				Parent Company		Consolidated	
Type	Index	Indexation	Maturity	03/31/2023	12/31/2022	03/31/2023	12/31/2022
FINEP - Financing	TJLP	2.00% to 5.00%	Feb/29	130,846	132,376	130,846	132,376
Working capital	CDI	+1.08	Dec/27	-	-	182,114	175,072
Honoring bank guarantees	CDI	-	Jun/22	-	-	35,938	34,805
				130,846	132,376	348,898	342,253
Current				9,786	9,346	45,724	44,152
Noncurrent				121,060	123,030	303,174	298,101

The short-term debt has been exercising pressure on the Group's cash flow. Management concluded renegotiations with the financial institutions to lengthen its debt profile in order to ease up its operating cash flow. See Note 1.

Finep - Financing

The FINEP financing consists of contracts funding the research and development projects for biomass (Energy Cane Vertix) and yeast, in addition to technologies for converting biomass into biochemicals and biofuel.

Working capital and Honoring Bank Guarantees

In FY 2021, the Company restructured its loans and borrowings with its leading creditors, and the guarantees on loans and borrowings from public banks were exercised by private banks. Negotiations were made with a number of these private banks and the renegotiated debt was reclassified as Working Capital. As of March 31, 2023 the payable balance of R$ 35,938 to Banco Itaú is negotiated with the financial institution, in order to lengthen the debt with amortization 100% allocated to long-term and without the need for the initial disbursement of cash from current operations.

(In thousands of Reais)

a. Debt amortization schedule

See below the contractual maturities of financial liabilities:

	Parent Company		Consolidated	
	03/31/2023	12/31/2022	03/31/2023	12/31/2022
1 year	9,786	9,346	45,724	44,152
2 years	18,883	14,798	38,058	20,025
3 years	27,563	27,257	52,148	55,865
4 years onwards	74,614	80,975	212,968	222,211
Total	130,846	132,376	348,898	342,253

b. Reconciliation of equity changes against cash flows deriving from financing activities

	Parent Company	Consolidated
Balance at December 31, 2021	147,439	551,017
Amortization of loans and borrowings (principal)	(12,638)	(12,639)
Provision for interest on loans and financing	4,307	17,255
Amortization of loans and borrowings (interest)	(4,270)	(7,415)
Balance at March 31, 2022	134,838	548,218
Balance at December 31, 2022	132,376	342,253
Amortization of loans and borrowings (principal)	(1,452)	(1,452)
Provision for interest on loans and financing	3,653	11,828
Amortization of loans and borrowings (interest)	(3,731)	(3,731)
Balance at March 31, 2023	130,846	348,898

c. Guarantees

The Company's debts are secured by bank guarantee and corporate aval and real guarantees. The real guarantees are imposed on property, plant and equipment in favor of BNDES, FINEP, Bradesco and Banco do Brasil. Institutions have a mortgage on the industrial assets of the subsidiary BioFlex, and FINEP also has a guarantee over agricultural equipment. See the values of property, plant and equipment assigned as collateral in Note 12.

d. Covenants

The Group has loans and borrowings in the individual and consolidated statements maturing by February 2029.

The loans and borrowings contain non-financial operating covenants establishing a range of obligations, listed below:

- Compliance with environmental obligations and legislation, the biosafety quality certificate (CQB) and the Gene Pool Management Council (CGEN);
- Submit federal, state and municipal tax debt clearance certificates;
- Have not incurred protests for indisputable debts;

(In thousands of Reais)

- Pausing of operating activities;
- Corporate and equity restructuring.

The Executive Board and its legal advisers understand there was no breach of covenants between the first quarter of 2023 and the date these interim individual and consolidated financial statements were approved.

16. Trade payables

	Parent Company		Consolidated	
	03/31/2023	12/31/2022	03/31/2023	12/31/2022
Domestic payables	581	562	11,151	10,584
Overseas payables	-	-	27,363	29,086
Total	581	562	38,514	39,670

Trade payables are mainly due to the purchase of raw materials for the 2G ethanol production process and independent auditing and consultancy services acquired.

The Group has not yet developed a proprietary enzyme solution, which means that its technological and licensing process depend on enzyme suppliers, which are currently sourced exclusively from Novozymes North America INC.

17. Deferred revenue

	Consolidated	
	03/31/2023	12/31/2022
Collaboration agreement - Nextchem (i)	4,064	5,739
Current	4,064	5,739

(i) On July 31, 2020, the Group established a strategic alliance with NextChem, a subsidiary of the Italian engineering group Maire Tecnimont with a worldwide presence in renewable energy. This is a 10-year partnership and has the following values and premises:

- USD 4,000 thousand received after signing the contract;
- USD 4,000 thousand will be received after the technology license has been sold;
- USD 4,000 thousand will be received after the plant starts production for the sale of the first license or the sale of the second technology license;
- USD 3,000 thousand will be received in engineering services to optimize the technology and develop a "process design package".

The first tranche of R$ 21,855 (USD 4,000) thousand was received in August 2020 and recognized as deferred revenue, which will be amortized over 40 years, as per the contract. The contract has a total value of R$ 78,050 (USD 15,000 thousand), with residual tranches of R$ 57,236 (USD 11,000 thousand), of which R$ 41,626 (USD 8 thousand) will be received in cash and R$ 15,610 (USD 3,000 thousand) in services provided by Nextchem. These amounts were converted to dollars at the time of the operation.

There was a partial pro-rata amortization over 40 months (USD 100 per month) of the contract, with the carrying amount of R$ 4,064 (USD 800 thousand) converted at the exchange rate on March 31, 2023.

(In thousands of Reais)

18. Provision for contingencies

The Company and its subsidiaries are defendants in cases rated as probable defeats by our legal advisers in the consolidated amount of R$ 167 as of March 31, 2023.

The Company and its subsidiaries are defendants in cases rated as possible defeats by our legal advisers in the consolidated amount of R$ 3,865 as of March 31, 2023 (R$ 4,349 as of December 31, 2022), for which no provisions were recorded.

19. Equity

a. Share Capital

The ownership structure is as follows:

	March 31, 2023		
	Capital - R$	Number of shares	Interest
Shareholders			
GranInvestimentos S/A	377,662	93,038,165	86%
BNDES Participações S/A	600,000	15,094,340	14%
Total	977,662	108,132,505	100%

	December 31, 2022		
	Capital - R$	Number of shares	Interest
Shareholders			
GranInvestimentos S/A	377,662	93,038,165	86%
BNDES Participações S/A	600,000	15,094,340	14%
Total	977,662	108,132,505	100%

b. Advance for future capital increase – (AFAC)

As of December 30, 2022 the shareholder GranInvestimentos S.A. made a private advance for future capital increase instrument to transfer to the AFAC the amount of R$ 341,059, it had receivable from its subsidiary GranBio Investimentos S.A. consisting of amounts submitted to provide cash for operating activities, which will be converted into registered common shares. The Company expects to pay in the share capital by the end of FY 2023.

c. Capital reserve

In a Shareholders' Agreement signed on April 30, 2013 between BNDESPAR and GranInvestimentos S.A. (Shareholders), it was stipulated that the shares were initially issued at R$ 39.75 each. The capital contributions after the signing of this Agreement have the share price adjusted by the Broad Consumer Prices Index (IPCA). The variation in the share price between the date of the Shareholders' Agreement until the date of the effective receipt of the capital contribution, is multiplied by the total number of paid-in shares, and this variation is recorded as a Capital Reserve.

d. Asset and liability valuation adjustments

Asset and liability valuation adjustments include accumulated adjustments for foreign-currency differences deriving from the translation of the interim individual and consolidated financial statements for foreign operations. In the 3-month period ended March 31, 2023, translation of R$ 14,585 was recognized. The balance of the item as of March 31, 2023 is R$ 179,028.

(In thousands of Reais)

20. Revenue from goods and services sold

The table below breaks down the company's gross revenue in accordance with CPC 47- item 112A.

	Consolidated	
	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Revenue from collaboration agreement (i)	1,558	2,604
Revenue	1,558	2,604
Equipment leasing revenue (ii)	-	4,969
Other revenue	-	4,969
Total gross revenue	1,558	7,573
Sales taxes	-	(459)
Revenue from goods and services sold	1,558	7,114

(i) Revenue of R$ 1,558 (USD 300) due to the recognition of deferred revenue under the contract.
(ii) Operating revenue of the indirect subsidiary BioFlex Agroindustrial S.A. due to leasing electricity cogeneration assets with CESM.

For further information about Operating revenue see Note 27 - Segment Reporting.

21. Cost of goods sold and services rendered

	Consolidated	
	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Cost from commercial partner and services provided (i)	(2,745)	(3,307)
Leasing cost (ii)	-	(1,674)
Idleness cost (iii)	(10,396)	(4,603)
	(13,141)	(9,584)

(i) Operational cost of US indirect subsidiaries
(ii) Depreciation cost of leased thermoelectric assets
(iii) Idleness cost of the 2G ethanol production plant of the indirect subsidiary BioFlex.

(In thousands of Reais)

22. Administrative and general expenses

	Parent Company		Consolidated	
	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Depreciation and amortization (i)	(52)	(42)	(4,830)	(5,226)
Services rendered (ii)	(1,582)	(1,992)	(3,990)	(4,054)
Personnel expenses	(43)	(116)	(1,547)	(1,926)
Insurance	(46)	(46)	(941)	(2,700)
Taxes and fees	(105)	(212)	(884)	(421)
General expenses (iii)	(1)	(25)	(539)	(348)
Occupation expenses	(68)	(30)	(86)	(97)
Travel	(1)	(2)	(49)	(21)
Vehicle expenses	-	-	(13)	(25)
Selling expenses	(4)	-	(8)	-
Total	(1,902)	(2,465)	(12,887)	(14,818)

(i) Depreciation of other assets such as furniture, vehicles and IT equipment are recognized as a general and administrative expense. In the consolidated quarterly statements, the depreciation expense at March 31, 2023 was R$ 337 (R$ 519 at March 31, 2022) and the amortization expense for intangible assets at March 31, 2023 was R$ 4,493 (R$ 4,707 at March 31, 2022);

(ii) Denotes expenses on third-party services provided such as audit, tax and legal;

(iii) General expenses on maintenance, mail, fuel, materials for use and consumption, provision for contingencies, legal proceedings and safety.

23. Other operating income

	Consolidated	
	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Proceeds from sale of property, plant and equipment (i)	55	-
Other operating income	-	17
Total other revenue	55	17
Provision for related-party losses (ii)	-	(6,369)
Proceeds from sale of property, plant and equipment (iii)	-	(508)
Other operating income	(40)	-
Total other expenses	(40)	(6,877)
Total	15	(6,860)

(i) Proceeds from the sale of a vehicle, authorized by Company management to pay a supplier. This transaction did not generate cash, as stated in Note 12.

(ii) Provision for impairment of accounts receivable with the Joint Venture Companhia Energética de São Miguel dos Campos (CESM) originating from the boiler lease. The projected cash flow was lower than the total balance receivable;

(iii) In January 2021 Company management authorized the sale of obsolete equipment and property, plant and equipment of the indirect subsidiary BioFlex Agroindustrial S.A.

(In thousands of Reais)

24. Net financial income/loss

	Parent Company		Consolidated	
Financial costs	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022	12/31/2022 to 03/31/2023	12/31/2021 to 03/31/2022
Bank expenses	(377)	(4)	(379)	(5)
IOF	(21)	(14)	(21)	(15)
Interest expenses (i)	(54)	(92)	(2402)	(1,762)
Interest on loans, borrowings and debentures	(3,653)	(4,307)	(11,828)	(17,255)
Exchange variance	-	-	-	(5)
	(4,105)	(4,417)	(14,630)	(19,042)
Financial revenue				
Interest received	-	-	428	51
Financial discounts obtained	-	-	121	9
Earnings on investments	2,647	1,454	1,973	-
Exchange variance	869	5,337	1,715	10,482
	3,516	6,791	4,237	10,542
Net financial income/loss	(589)	2,374	(10,393)	(8,500)

(i) Interest mainly due to financial cost on loan guarantees obtained from financial institutions and interest and fines on late payments to suppliers and taxes.

25. Accumulated tax losses

a. Amounts recognized in profit or loss for the period – Consolidated

	Consolidated 03/31/2023	Consolidated 03/31/2022
Current income tax and social contribution expense		
Current year expense	(478)	-
Total	(478)	-
Deferred income tax and social contribution expense		
Temporary difference:		
Realization through amortization of intangible assets	1,213	1,222
	1,213	1,222

b. Deferred tax assets not recognized - Consolidated

The Group did not generate taxable profit in previous years and, therefore, there is increased doubt about whether future taxable profit will be available in the foreseeable future to realize deferred tax assets. As a result, deferred tax assets were not recognized as at March 31, 2023.

For the Brazilian companies, accumulated tax losses and the negative basis of social contribution never expire, but can only be offset against up to 30% of annual taxable earnings. The Company's total income tax loss and negative basis is R$ 875,326 as of March 31, 2023 (R$ 848,268 as of December 31, 2022)

(In thousands of Reais)

For North American entities, tax losses accumulated before December 31, 2017 can be used in 20 years and there is no limit on taxable profit for the use of these losses. Tax losses generated after December 31, 2017 can be used indefinitely and can be used to offset only 80% of taxable income for the current year. The total tax loss is R$ 129,305 as of March 31, 2023 (R$ 122,417 as of December 31, 2022)

Tax returns for all companies are subject to tax inspections and reviews by the tax authorities for varying periods. As a result of these inspections and reviews, questions may arise about the methodologies, criteria and interpretations of the legislation by the authorities and, therefore, change the amounts recognized by the Group in the quarterly information and/or result in judicial questions.

c. Movements in deferred tax balances

	Consolidated
Opening net balance at December 31, 2021	57,075
Realization through amortization of intangible assets	(1,222)
Exchange variance on translating taxes from the functional currency to the presentation currency	(8,502)
Closing net balance at March 31, 2022	47,351
Opening net balance at December 31, 2022	48,493
Realization through amortization of intangible assets	(1,213)
Exchange variance on translating taxes from the functional currency to the presentation currency	(1,249)
Closing net balance at March 31, 2023	46,031

d. Tax benefit

The subsidiary BioFlex Agroindustrial S.A. has a benefit from the federal tax authority and the Northeast Development Agency (SUDENE) awarding a nonreturnable entitlement to a 75% reduction in the IRPJ and Surcharge in the period 01/01/2015 to 12/31/2024.

26. Financial instruments and risk management

Operations with financial instruments are fully recognized in the accounts and restricted to cash and cash equivalents, accounts receivable, loans and borrowings, and other accounts receivable and payable from related parties, loans, financing, trade payable and other accounts payable.

The Group and its direct and indirect subsidiaries do not invest in derivatives or any other risky assets on a speculative basis.

The Group and its direct and indirect subsidiaries assess such financial assets and liabilities with respect to market value was conducted on the basis of available information and appropriate assessment methods. However, the interpretation of market data and selection of assessment methods requires considerable judgment and estimates to calculate the most appropriate realizable value. As a result, the estimates do not necessarily indicate the values that could be realized in the current market.

(In thousands of Reais)

The activities of the Company and its direct and indirect subsidiaries expose them to various financial risks: credit risk, liquidity risk and market risk (including interest rate risk), as described below:

a. Credit risk

Credit risk is the risk of financial loss to the Company if a customer or counterparty to a financial instrument fails to meet its contractual obligations. This risk is primarily posed by trade receivables.

The carrying amount of financial assets represents the maximum credit exposure.
The Company has a credit policy whose purpose is to set procedures for granting loans in business transactions that are in line with the required levels of quality, fastness and security.

The Group determines credit limits by analyzing the client's credit standing, considering: (i) onboarding information (ii) economic and financial information and (iii) historical purchases and payments.

b. Liquidity risk

The cautious management of liquidity risk implies keeping enough cash and securities and credit facilities to be able to settle market positions. Due to the dynamic nature of their businesses, the Group and its direct and indirect subsidiaries use flexible funding by maintaining bank credit facilities.

Management monitors the level of the Company and its direct and indirect subsidiaries' liquidity, considering the expected cash flow and cash and cash equivalents. Furthermore, the liquidity management policy of the Company and its direct and indirect subsidiaries entails projecting cash flows and considering the level of net assets required to achieve these projections and maintain the debt financing plans.

Management is continuing to look into alternatives to guarantee a balanced capital structure. See further information in Note 1.

The following are the remaining contractual financial liability maturities and exclude the impact of netting agreements:

	Parent Company				
Non-derivative financial liabilities	Amount Carrying amount	6 months or less	6 to 12 months	1 to 3 Years	Greater than 3 years
Loans and borrowings*	130,846	5,233	5,596	91,060	117,787
Trade payables	581	581	-	-	-
Related-party loans	92,919	92,919	-	-	-
Accounts payable	74	74	-	-	-
	224,420	98,807	5,596	91,060	117,787

(In thousands of Reais)

	Consolidated				
Non-derivative financial liabilities	Amount Carrying amount	6 months or less	6 to 12 months	1 to 3 Years	Greater than 3 years
Loans and borrowings*	348,898	24,389	26,018	265,168	250,626
Trade payables	38,514	38,514	-	-	-
Related-party loans	4,637	4,637	-	-	-
accounts payable	4,894	1,678	-	3,216	-
	396,943	69,218	26,018	268,384	250,626

* Amounts in each age range have projected interest to be incurred.

The maturity analyses of the Group do not project cash flows that could occur significantly earlier or at significantly different amounts.

c. Market risk

The Group is exposed to interest-rate changes, charged on its loans and borrowings and exchange variance on the assets and liabilities of the overseas-based direct and indirect subsidiaries. To minimize possible impacts triggered by these changes, the Group adopts the policy of diversifying these contracts.

The Group is primarily exposed to changes in CDI and TJLP interest rates, which are applied to its loans and borrowings.

At the quarterly reporting date, the profile of the Company's financial instruments yielding interest was:

	Carrying amount			
	Parent Company		Consolidated	
Variable-income instruments	03/31/2023	12/31/2022	03/31/2023	12/31/2022
Liabilities				
Loans and borrowings (CDI)	-	-	(218,052)	(209,877)
Loans and borrowings (TJLP)	(130,846)	(132,376)	(130,846)	(132,376)
Total	(130,846)	(132,376)	(348,898)	(342,253)

The profile of the assets and liabilities resulting from the consolidation of the direct and indirect subsidiaries in USD as the functional currency has been summarized below, and is exposed to exchange variance:

	Consolidated	
Instruments exposed to exchange variance	03/31/2023	12/31/2022
Assets		
Cash and cash equivalents	219	105
Accounts receivable	555	1,857
Other financial assets	55,343	56,932
	56,117	58,894
Liabilities		
Trade payables	(5,720)	(6,858)
Other accounts payable	(5,767)	(6,188)
Accounts payable	(11,995)	(12,319)
	(23,482)	(25,365)

(In thousands of Reais)

Cash flow sensitivity analysis for variable-rate instruments and exchange variance

The sensitivity analysis took into account the loans and borrowings which are restated by the CDI and TJLP indexes.

The sensitivity analysis on interest rates on loans, financing and debentures considers an increase and reduction of 25% and 50% in interest rates and how this would impact equity and results. This analysis takes into account the amounts presented in the quarterly statements as of March 31, 2023. Except for the previously mentioned 25% and 50% variation, no other changes were projected:

						03/31/2023
Interest rate exposure	Balances	Probable	25%	50%	-25%	-50%
Loans and borrowings						
TJLP	(130,846)	(9,643)	(12,054)	(14,465)	(7,233)	(4,822)
CDI	(218,052)	(29,764)	(37,205)	(44,646)	(22,323)	(14,882)
Profit or loss for the period	(348,898)	(39,407)	(49,259)	(59,111)	(29,556)	(19,704)

The interest rates the Company is subject to, based on projections of these rates in a probable scenario and the sensitivity analysis, are the following:

					03/31/2023
	Probable	25%	50%	-25%	-50%
TJLP (i)	7.37%	9.21%	11.06%	5.53%	3.69%
CDI (ii)	13.65%	17.06%	20.48%	10.24%	6.83%

(i) Interest rates were based on information available at the BNDES Source: BNDES
(ii) Interest rates were based on information available at CETIP

The sensitivity analysis into the exchange rates with the 25% and 50% increase and decrease in the consolidated figures is as follows, including the most likely dollar variance used for translation at March 31, 2023. As of March 31, 2023 the USD exchange rate was R$ 5.0804 to the dollar:

Exposure to exchange rates	Carrying amount in R$	Probable - USD	25%	50%	-25%	-50%
Assets	56,117	11,046	14,029	28,059	(14,029)	(28,059)
Liabilities	(23,482)	(4,622)	(5,871)	(11,741)	5,871	11,741
Exposure in profit or loss for the period		6,424	8,158	16,318	(8,158)	(16,318)

For the effects of the investments in overseas subsidiaries, see below the sensitivity analysis with the probable scenario for the future exchange rate:

					03/31/2023
	Probable	25%	50%	-25%	-50%
US dollar (USD)	5.0804	6.3505	7.6206	3.8103	2.5402

(In thousands of Reais)

Capital management

The objective of the Company´s capital management is to ensure that it maintains its strong credit rating with the financial institutions and its excellent capital ratio, in order to support the Company´s business and maximize value for its shareholders. The Group and its direct and indirect subsidiaries control their capital structures by making adjustments and adapting to the existing economic conditions. In its net debt structure, the Group includes loans and financing less cash and cash equivalents.

	Parent Company		Consolidated	
	03/31/2023	12/31/2022	03/31/2023	12/31/2022
Cash and cash equivalents	36,382	1	44,596	64,723
Short-term investments	7,419	7,186	7,419	7,186
(-) Loans and borrowings	(130,846)	(132,376)	(348,898)	(342,253)
Net debt	(87,045)	(125,189)	(296,883)	(270,344)
Equity	859,721	908,219	862,289	910,987
Equity and net debt	772,676	783,030	565,406	640,643

Classification of financial instruments

The table below shows the main financial instruments by category.

Parent Company

	Amortized cost	
Financial assets	03/31/2023	12/31/2022
Cash and cash equivalents	36,382	1
Total	36,382	1
Liabilities		
Trade payables	581	562
Related-party loans	92,919	44,363
Loans and borrowings	130,846	132,376
Accounts payable	1,934	190
Total	226,280	177,491

	Fair value through profit or loss	
Financial assets	03/31/2023	12/31/2022
Short-term investments	71,464	69,091
Total	71,464	69,091

(In thousands of Reais)

Consolidated

	Amortized cost	
Investments in equity	03/31/2023	12/31/2022
Cash and cash equivalents	44,596	64,723
Accounts receivable	730	2,032
Total	45,326	66,755
Liabilities		
Trade payables	38,514	39,670
Loans and borrowings	348,898	342,253
Related-party loans	4,637	-
Other accounts payable to related parties	65,406	63,502
Other accounts payable	4,895	5,026
Total	462,350	450,451

	Fair value through profit or loss	
Financial assets	03/31/2023	12/31/2022
Short-term investments	7,419	7,186
Total	7,419	7,186

The fair values of the financial instruments presented do not significantly vary from the balances presented in the statement of financial position.

27. Segment reporting

Basis for segmentation

The Group has the following 3 strategic divisions, which are its reportable segments. These divisions offer different products and services, and are managed separately because they require different technologies. The following summary describes the operations of each reportable segment of the Company:

Reportable segments	Operation
BioVertis	Company engaged in the experimentation, development, plantation, production and collection of biomass, i.e. Vertix energy cane and sugarcane straw.
BioFlex	Production of biomass, processing biomass for the production and sale of biofuel, electricity, biochemicals and pharmachemicals, technological research and development, sale of sugarcane straw, bagasse and biomass.
Biotech	Development of technology to convert biomass into cellulose ethanol, biochemicals and nanocellulose.

Information about reportable segments

Information related to each reportable segment is set out below.
The performance is assessed based on final net income, as Management believes that this information is the most important for assessing the results of the respective segments:

(In thousands of Reais)

	March 31, 2023				
	BioVertis	BioFlex	Biotech	Other	Total
Revenue from goods and services sold	-	-	1,558	-	1,558
Cost of goods sold and services rendered	-	(10,396)	(2,745)	-	(13,141)
Gross (Loss)	-	(10,396)	(1,187)	-	(11,583)
Operating revenue (expenses)					
Administrative expenses	-	(3,395)	(2,775)	-	(6,170)
Depreciation and amortization	-	(362)	(4,416)	-	(4,778)
Other income (expenses)	-	36	(21)	-	15
	-	(3,721)	(7,212)	-	(10,933)
Net (loss) before financial income and costs		(14,117)	(8,399)	-	(22,516)
Financial revenue	-	1,288	107	-	1,395
Financial costs	-	(12,650)	(9)	-	(12,659)
Net financial costs		(11,362)	98	-	(11,264)
Deferred income tax and social contribution	-	-	1,213	-	1,213
Net (loss) for the period – Subtotal	-	(25,480)	(7,088)	-	(32,568)
Other		-	-		(1,545)
Net (loss) for the Period	-				(34,113)

Segment reporting – Assets	BioVertis	BioFlex	Biotech	Other	Total
Inventories	-	8,609	-	-	8,609
Property, plant and equipment	-	729,197	5,983	2,429	737,609
Intangible assets	-	18,350	549,872	-	568,222

Segment reporting – Liabilities	BioVertis	BioFlex	Biotech	Other	Total
Loans and borrowings	-	(347,504)	-	(1,394)	(348,898)
Other accounts payable	-	(756)	(2,204)	(1,934)	(4,894)

(In thousands of Reais)

	March 31, 2022				
	BioVertis	BioFlex	Biotech	Other	Total
Revenue from goods and services sold	-	4,510	2,604	-	7,114
Cost of goods sold and services rendered	-	(6,278)	(3,306)	-	(9,584)
Gross (loss)	-	(1,768)	(702)	-	(2,470)
Operating revenue (expenses)					
Administrative expenses	(980)	(3,692)	(2,495)	-	(7,167)
Depreciation and amortization	(498)	(230)	(4,456)	-	(5,184)
Other income (expenses)	(493)	(6,368)	-	-	(6,861)
	(1,971)	(10,290)	(6,951)	-	(19,212)
(Loss) before financial income and costs	(1,971)	(12,058)	(7,653)	-	(21,682)
Financial revenue	17	5,136	51	-	5,204
Financial costs	(229)	(15,832)	(18)	-	(16,079)
Net financial costs	(212)	(10,696)	33	-	(10,875)
Deferred income tax and social contribution	-	-	1,222	-	1,222
Net (loss) for the period – Subtotal	(2,183)	(22,754)	(6,398)	-	(31,335)
Other	-	-	-	(91)	(91)
(Loss) for the period	(2,183)	(22,754)	(6,398)	(91)	(31,426)

Segment reporting – Assets	BioVertis	BioFlex	Biotech	Other	Total
Inventories	-	8,575	-	-	8,575
Property, plant and equipment	3,153	865,482	10,598	3,108	882,341
Intangible assets	27,702	111	527,203	-	555,016

Segment reporting – Liabilities	BioVertis	BioFlex	Biotech	Other	Total
Loans and borrowings	(7,251)	(520,346)	-	(20,621)	(548,218)
Other accounts payable	(257)	(16,780)	(2,725)	(117)	(19,879)
Leasing accounts payable	-	-	-	(2,001)	(2,001)

28. Earnings (loss) per share

In compliance with technical pronouncement CPC 41 (IAS 33) - Earnings per share, approved by CVM Resolution 636, the Company presents the following information on earnings per share for the period ended March 31, 2023 and 2022.

Basic: the basic calculation of earnings per share is done by dividing the profit (loss) for the period, attributed to the holders of the Parent Company's common shares, by the weighted average number of common shares available during the period (denominator).

Diluted: the calculation of diluted earnings per share has been based on the following profit or loss attributable to the holders of the Company's common shares and weighted-average number of common shares for the effects of all dilutive potential common shares. The Company does not have any potential common shares.

The table below provides data on earnings and the shares used in calculating basic and diluted earnings per share, which are identical because the Company does not have potential common shares.

	03/31/2023	03/31/2022
Loss for the period	(33,913)	(31,184)
Weighted average number of common shares (in thousands)	108,133	108,133
Basic and diluted loss per share (in Reais)	(0.3136)	(0.2884)

29. Insurance

As of March 31, 2023, the Company and its subsidiaries have the following insurance contracts and amounts considered compatible by management with the risks involved:

- PP&E and inventory (approximate coverage - R$ 561,063)
- Civil liability: coverage for material and personal damages caused involuntarily to third parties as a result of the production, facilities and assemblies taking place on the insured site;
- Administrative (approximate coverage - R$ 449,145)
- Administrative head office: fire, lightning strike, explosion, theft, qualified theft, civil liability and others.

Given their nature and specific features, the risk assumptions made and the respective coverage are not covered by a quarterly statements audit, and were not therefore reviewed by our independent auditors.

Bernardo de Almeida Gradin Chief Executive Officer	Guilherme Mottin Refinetti Chief Financial Officer	Dejair Adão Guerro de Oliveira Controller CRC PR-052741/O-4-T-CE