

(A free translation of the original in Portuguese)



# Financial Statements

## December 31, 2018

Annual report

Financial statements

Notes

Independent auditor's report

Opinion of the Statutory Audit Board

Opinion of the Audit and Risks Committee

Management



(A free translation of the original in Portuguese)

## MESSAGE FROM MANAGEMENT

Dear shareholders,

Tupy delivered exceptional results in 2018. Our team was able to capitalize on the stronger demand recorded throughout the year and captured opportunities to better serve our customers in all continents.

In this context, we introduced new complex geometries and special alloy products and extended our machinery services, confirming our growth strategy based on technological innovation, which continues healthy and expanded into new successful partnerships with our customers, universities and research centers in Brazil and overseas.

However, in order to continue to walk this path, we must strive for innovation. For us at Tupy, innovation also includes our participation in the evolution of the markets in which we operate and, consequently, contributing to changes that bring tangible benefits to global growth, providing components for solutions to be used in a wide range of segments, such as cargo transportation in the most varied modes, infrastructure and agriculture.

Therefore, Tupy carries out its Values by contributing to the improvement of society's living standards, with economic solutions to increase access to basic sanitation, hospitals, drinking water, energy, food production and distribution, and global commerce.

Our strong business model, which is widely diversified across different markets, segments and applications, once again delivered superior results. Despite the political and economic uncertainties in the country, of which we could not control – such as the truck drivers' strike, reduction in Reintegra's benefits, re-calculation of payroll costs, among others – and higher raw material costs, the year was marked by strong financial and operating results.

Our revenues reached R\$4.8 billion, up by 30.3% compared to 2017. EBITDA also increased by 29.9% over the previous year, reaching R\$677.1 million and an EBITDA margin of 14.0%. Net income followed the upward trend, totaling R\$271.7 million, a 77.1% increase over 2017. These results represent historic high records for Tupy.

We adopted rigorous capital allocation disciplines that, combined with the sale of non-operating assets, resulted in an excellent operating cash generation of R\$577.4 million, up by 121.8% and representing the highest amount in the Company's history. The EBITDA conversion into cash rate reached 85%, which will certainly be used for better purposes, such as the execution of strategic projects or as dividend distribution to our shareholders.

By increasing return on invested capital to 11.4%, an increase of 390 basis point compared to 2017, we delivered another commitment assumed with investors at the end of 2017: increase ROIC to a two-digit level since the second quarter of 2018.

We ended 2018 with an even stronger balance sheet, with more than R\$700 million in cash and equivalents. As shareholder remuneration is one of our principles, we were able to distribute R\$175.0 million in dividends and interest on capital in 2018, representing one of the largest dividends yields of the Brazilian stock exchange in the period.

Also in 2018, we celebrated our 80<sup>th</sup> anniversary – a successful track record filed with entrepreneurship, technological innovation, professional training and commitment to employees, customers, society and shareholders.

Having a keen awareness and understanding of our history and values is important for us to develop a long-term strategy, maintaining successful practices and adding new initiatives that contribute to the execution of our strategic plan.

Our essential goal is to increase profitably in the industry in which we operate by reinvesting in our strengths and extensively exploiting technological know-how that will continue to deliver superior value to our shareholders.

Equally important is the extensive organizational restructuring we initiated, which is aimed at building a corporate culture focused on operational excellence and includes new leaders recruited in Brazil and overseas. The model envisions the use of new execution methodologies, based on data, performance monitoring and immediate reaction, which will allow us greater speed to correct misalignments and to choose and expand investments in profitable growth areas.

We also reinforced our planning division with a project management office that supports the operation by overseeing various strategic projects, cost reductions, decision modeling and industrial automation. In addition, we also initiated a project that will align our procurement process with international best practices.

And, at the center of all these initiatives lies the enhancement of our customer satisfaction level, which is essential for the proper executing of the new model. We are thankful to our long-term partners and ensure them that we are increasingly stronger and prepared to grow and improve the service packages we deliver. At the end of the day, it is our partners who judge the successes of our decisions.

It is impossible to celebrate our results without attributing them to the elements that are part of our founding pillars, which include our full commitment to our core values, ethics, and our human talents that enable our dreams and goals to be achieved. Our team is the common ground for our business and is essential for us to continue as a global reference in the sector. That is why, with the same daily dedication and motivation we receive from our valued employees in Brazil, Mexico, USA and Germany, we invest to improve our work environment.

Our operations reflect in prosperity in the communities we serve. They promote better living conditions, citizenship and, frankly, reinforce the principles that have made Tupy successful for the past 80 years.

To this end, in addition to providing internal growth opportunities, in 2018 alone we approved approximately 2,000 promotions and internal recruitments, we also invested in safety measures, better working conditions, education and professional training, aimed at preparing and developing our employees so that opportunities can turn in to successful careers. It was with this objective that, in August 2018, we launched a casting school, the *Escola de Fundição Tupy*.

Aware of how we can impact communities where we operate, not only from a socioeconomic view but also in environmental terms, we have a dedicated team of over 60 professionals that identify and implement best environmental management practices. Our commitment also includes quality of life, sports, leisure and local culture.

To illustrate a bit of this, in 2018, we invited our employees' families to visit our offices and attend events, which were held in our manufacturing plants for over 20 thousand people, who were able to better understand our process and be amazed on how we operate. It was exciting to experience and observe each employee's pride in introducing the company to their friends and family.

In terms of the future, with global GDP growth estimated to double by 2040 and other indicators, such as population growth, urbanization and how they will impact demand for food and infrastructure investments indicate a positive outlook for the cargo transportation, machinery and equipment segments. The solid long-term fundamentals of our customers' needs give us great optimism. Our wide range of partners, in addition to our diversified geographic and sector footprint, will enable us to continuously deliver good results, despite economic cycles.

Internally, we seek to anticipate technological routes and market trends with frequent discussions and analysis led by our Strategy Committee, which is dedicated to the continuity and expansion of the business. All of this is based on the strategy Tupy has developed in the last few years, sustained by four essential pillars: (i) strategic growth, (ii) operational excellence, (iii) return to shareholders and (iv) sustainability.

In order to succeed in the execution of this planning, we remain attentive to our organizational structure, improving it in order to increasingly become more agile and attentive to customers' needs, with consistent, high-value added, quality deliveries.

We have a solid strategy and, by continuing with our research and development investments and employee training, we will be able to increasingly leverage our competitive advantages. My commitment is to ensure a disciplined execution and to take advantage of the great opportunities that global growth offers us.

It is a honor to lead this great company!

Sincerely,

**Fernando Cestari de Rizzo**  
**CEO**

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**MAIN INDICATORS**


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## Consolidated (R\$ thousand)

| SUMMARY                                | 2018             | 2017             | Var.[%]       |
|----------------------------------------|------------------|------------------|---------------|
| <b>Revenue</b>                         | <b>4,828,216</b> | <b>3,706,151</b> | <b>30.3%</b>  |
| Cost of goods sold                     | (4,032,290)      | (3,099,966)      | 30.1%         |
| <b>Gross Profit</b>                    | <b>795,926</b>   | <b>606,185</b>   | <b>31.3%</b>  |
| <i>% on revenue</i>                    | 16.5%            | 16.4%            |               |
| Operating expenses                     | (348,444)        | (300,434)        | 16.0%         |
| Other operating expenses               | (111,230)        | (123,907)        | -10.2%        |
| Reversion of impairment                | 33,631           | 8,301            | 305.1%        |
| <b>Income before financial results</b> | <b>369,883</b>   | <b>190,145</b>   | <b>94.5%</b>  |
| <i>% on revenue</i>                    | 7.7%             | 5.1%             |               |
| Net financial result                   | (12,615)         | (56,208)         | -77.6%        |
| <b>Income before taxes</b>             | <b>357,268</b>   | <b>133,937</b>   | <b>166.7%</b> |
| <i>% on revenue</i>                    | 7.4%             | 3.6%             |               |
| Income tax and social contribution     | (85,547)         | 19,464           | -             |
| <b>Net income</b>                      | <b>271,721</b>   | <b>153,401</b>   | <b>77.1%</b>  |
| <i>% on revenue</i>                    | 5.6%             | 4.1%             |               |
| <b>EBITDA (acc. Inst. CVM 527/12)</b>  | <b>615,629</b>   | <b>439,105</b>   | <b>42.0%</b>  |
| <i>% on revenue</i>                    | 12.8%            | 11.8%            |               |
| <b>Adjusted EBITDA</b>                 | <b>677,065</b>   | <b>521,149</b>   | <b>29.9%</b>  |
| <i>% on revenue</i>                    | 14.0%            | 14.1%            |               |
| Average Exchange rate (USD/BRL)        | 3.66             | 3.19             | 14.5%         |
| Average Exchange rate (EUR/BRL)        | 4.31             | 3.61             | 19.4%         |

 **SALES VOLUME**

Sales volume increased by 7.9% against the previous year, despite the suspension of the casting activities at the Mauá (SP) plant and the sale of the steel shots unit in 2H17.

| Consolidated (ton)                           |                |                |             |
|----------------------------------------------|----------------|----------------|-------------|
|                                              | 2018           | 2017           | Var. [%]    |
| <b>Domestic Market</b>                       | <b>112,417</b> | <b>109,805</b> | <b>2.4%</b> |
| Transportation, Infrastructure & Agriculture | 98,645         | 91,306         | 8.0%        |
| Hydraulics                                   | 13,772         | 18,499         | -25.6%      |
| <b>Foreign Market</b>                        | <b>485,933</b> | <b>444,674</b> | <b>9.3%</b> |
| Transportation, Infrastructure & Agriculture | 467,853        | 427,564        | 9.4%        |
| Hydraulics                                   | 18,080         | 17,110         | 5.7%        |
| <b>Total sales volume</b>                    | <b>598,350</b> | <b>554,479</b> | <b>7.9%</b> |

In the domestic market, sales of commercial vehicles, machinery and equipment increased due to the resumption of the Brazilian economy and the increase in our customers' export levels. On the other hand, the foreign market registered a 9.3% growth in sales volume due to the positive performance of sales in all applications. In 2018, the foreign market was responsible for 81.2% of total sales volume, while the domestic market accounted for 18.8%.

The transportation, infrastructure and agriculture segment accounted for 94.7% of the Company's portfolio and the Hydraulic segment (pipe fittings and iron bars) accounted for 5.3%. The transportation, infrastructure and agriculture segment portfolio comprised of 19% partially or fully machined products. The breakdown of iron alloy among the automotive industry was 14% in Compacted Graphite Iron – CGI and 86% in other alloys (Gray/Nodular).

## REVENUES

Revenues reached R\$4,828.2 million in 2018, up by 30.3% versus 2017 due to the increase in volumes, devaluation of the Brazilian Real and the pass-through of increases in raw material costs, as well as a more favorable product mix and new contracts.

| Consolidated (R\$ thousand)                  |                  |                  |              |
|----------------------------------------------|------------------|------------------|--------------|
|                                              | 2018             | 2017             | Var.[%]      |
| <b>Revenue</b>                               | <b>4,828,216</b> | <b>3,706,151</b> | <b>30.3%</b> |
| Domestic Market                              | 832,714          | 653,451          | 27.4%        |
| <i>% share</i>                               | <i>17.2%</i>     | <i>17.6%</i>     |              |
| Foreign Market                               | 3,995,502        | 3,052,700        | 30.9%        |
| <i>% share</i>                               | <i>82.8%</i>     | <i>82.4%</i>     |              |
| <b>Revenue by Market</b>                     | <b>4,828,216</b> | <b>3,706,151</b> | <b>30.3%</b> |
| Transportation, Infrastructure & Agriculture | 4,596,219        | 3,499,328        | 31.3%        |
| <i>% share</i>                               | <i>95.2%</i>     | <i>94.4%</i>     |              |
| Hydraulics                                   | 231,997          | 206,823          | 12.2%        |
| <i>% share</i>                               | <i>4.8%</i>      | <i>5.6%</i>      |              |

*Note: The split between commercial and off-road vehicles considers our best inference of the same product for these two applications*

In 2018, North America accounted for 63.7% of Tupy's revenues. South and Central America accounted for 17.9%, and Europe for 12.4%. The remaining 6.0% came from Asia, Africa and Oceania.

Revenues from the foreign market increased by 30.9% compared to the previous year, with significant growth in all applications for the cargo, infrastructure and agriculture segment. In the domestic market, revenues increased by 27.4%, mainly as a result of the performance of commercial and off road vehicle applications.


**COST OF GOODS SOLD AND OPERATING EXPENSES**

The cost of goods sold (COGS) in 2018 amounted to R\$4,032.3 million, up by 30.1% compared to 2017. Consequently, the year recorded a gross margin of 16.5%, against 16.4% in the previous period.

| Consolidated (R\$ thousand)               |                    |                    |              |
|-------------------------------------------|--------------------|--------------------|--------------|
|                                           | 2018               | 2017               | Var.[%]      |
| <b>Revenue</b>                            | <b>4,828,216</b>   | <b>3,706,151</b>   | <b>30.3%</b> |
| <b>Cost of goods sold</b>                 | <b>(4,032,290)</b> | <b>(3,099,966)</b> | <b>30.1%</b> |
| Raw-material                              | (2,292,324)        | (1,590,434)        | 44.1%        |
| Labor, profit sharing and social benefits | (908,692)          | (744,419)          | 22.1%        |
| Maintenance and third parties             | (341,665)          | (338,092)          | 1.1%         |
| Energy                                    | (219,585)          | (209,382)          | 4.9%         |
| Depreciation                              | (217,617)          | (202,926)          | 7.2%         |
| Others*                                   | (52,407)           | (14,713)           | 256.2%       |
| <b>Gross profit</b>                       | <b>795,926</b>     | <b>606,185</b>     | <b>31.3%</b> |
| <i>% on revenue</i>                       | <i>16.5%</i>       | <i>16.4%</i>       |              |
| <b>Operating Expenses</b>                 | <b>(348,444)</b>   | <b>(300,434)</b>   | <b>16.0%</b> |
| <i>% on revenue</i>                       | <i>7.2%</i>        | <i>8.1%</i>        |              |

\* In 2018, certain maintenance costs and third parties were reclassified to the Others line

In addition to the production volume, COGS was impacted by a 34% increase in raw material costs per kilo, the devaluation of the BRL and increase in headcount and overtime costs required to meet demand. The effects related to the truck drivers' strike in May also affected results, including increases in freight and re-calculation of payroll costs.

Operating expenses increased by 16.0% during the period, representing 7.2% of net revenue and a 90-basis point improvement over the previous year. In addition to the dilution of fixed expenses due to the increase in revenue, several efficiency gains actions contributed to this performance.

## OTHER OPERATING (REVENUES) EXPENSES

Other net operating expenses amounted to R\$111.2 million in 2018, versus R\$123.9 million in 2017.

| Consolidated (R\$ thousand)          |                  |                  |               |
|--------------------------------------|------------------|------------------|---------------|
|                                      | 2018             | 2017             | Var. [%]      |
| Depreciation of non-operating assets | (728)            | (706)            | 3.1%          |
| Amortization of intangibles assets   | (49,066)         | (41,157)         | 19.2%         |
| Restructuring of the Mauá plant      | -                | (44,141)         | -             |
| Others*                              | (61,436)         | (37,903)         | 62.1%         |
| <b>Other net operating expenses</b>  | <b>(111,230)</b> | <b>(123,907)</b> | <b>-10.2%</b> |
| Reversal impairment of intangibles   | 33,631           | 8,301            | 305.1%        |
| <b>Total impairment adjusts</b>      | <b>33,631</b>    | <b>8,301</b>     | <b>305.1%</b> |

\* Includes the constitution/updating of provisions, recognition and impairment of tax credits and amounts receivable from Eletrobrás, PP&E write-offs and income from the sale of unserviceable assets

## NET FINANCIAL INCOME

Net financial income in 2018 was a result of R\$12.6 million in expenses versus R\$56.2 million in expenses in 2017. The net financial result was impacted by the reduction in financial expenses, mainly due to net amortizations in the last twelve months in the amount of R\$414.6 million. The reduction in financial income is primarily due to the decrease in cash flow compared to the previous year, as well as lower interest rates which remunerate our cash investments in Reais. The positive impact, in the amount of R\$44.9 million, from the update in value of the derivative financial instrument used to adjust the present value of receivables from Eletrobrás.

| Consolidated (R\$ thousand)         |                 |                 |               |
|-------------------------------------|-----------------|-----------------|---------------|
|                                     | 2018            | 2017            | Var. [%]      |
| Financial expenses                  | (114,321)       | (149,629)       | -23.6%        |
| Financial income                    | 89,641          | 105,586         | -15.1%        |
| Net monetary and Exchange variation | 12,065          | (12,165)        | -             |
| <b>Net financial income</b>         | <b>(12,615)</b> | <b>(56,208)</b> | <b>-77.6%</b> |

## EARNINGS BEFORE TAXES AND NET INCOME ÍQUIDO

Due to the aforementioned factors, net income in 2018 reached R\$271.7 million, against R\$153.4 million in 2017.

| Consolidated (R\$ thousand)                                   |                |                |               |
|---------------------------------------------------------------|----------------|----------------|---------------|
|                                                               | 2018           | 2017           | Var. [%]      |
| <b>Net income before income taxes</b>                         | <b>357,268</b> | <b>133,937</b> | <b>166.7%</b> |
| Tax effects before foreign Exchange impacts                   | (91,871)       | 9,158          | -             |
| <b>Net income before foreign Exchange effects on tax base</b> | <b>265,397</b> | <b>143,095</b> | <b>85.5%</b>  |
| Foreign Exchange effects on tax base                          | 6,324          | 10,306         | -38.6%        |
| <b>Net income</b>                                             | <b>271,721</b> | <b>153,401</b> | <b>77.1%</b>  |
| <i>% on revenue</i>                                           | <i>5.6%</i>    | <i>4.1%</i>    |               |

Income and social contribution before foreign exchange effects on tax base was negative by R\$91.9 million, resulting from the difference in expenses at the rate of (34%) on profit before tax effects and the effects of permanent additions/exclusions. The effect of exchange rates on the tax base was R\$6.3 million in the period.

## EBITDA

The combination of the factors mentioned above resulted in an adjusted EBITDA of R\$677.1 million in 2018, up by 29.9% compared to 2017, with margin of 14.0% on revenues in 2018.

| Consolidated (R\$ thousand)                   |                |                |              |
|-----------------------------------------------|----------------|----------------|--------------|
| RECONCILIATION OF NET INCOME TO EBITDA        | 2018           | 2017           | Var. [%]     |
| <b>Net income for the period</b>              | <b>271,721</b> | <b>153,401</b> | <b>77.1%</b> |
| (+) Net financial result                      | 12,615         | 56,208         | -77.6%       |
| (+) Income tax and social contribution        | 85,547         | (19,464)       | -            |
| (+) Depreciation, amortization and impairment | 245,746        | 248,960        | -1.3%        |
| <b>EBITDA (according to CVM 527/12)</b>       | <b>615,629</b> | <b>439,105</b> | <b>40.2%</b> |
| <i>% on revenue</i>                           | <i>12,8%</i>   | <i>11,8%</i>   |              |
| (+) Other net operating expenses*             | 61,436         | 37,903         | 62.1%        |
| (+/-) Restructuring of the Mauá plant         | -              | 44,141         | -            |
| <b>Adjusted EBITDA</b>                        | <b>677,065</b> | <b>521,149</b> | <b>29.9%</b> |
| <i>% on revenue</i>                           | <i>14.0%</i>   | <i>14.1%</i>   |              |

(\*) Other net operating expenses are presented net of amortization and depreciation expenses.

Despite the strong operating result, due to the increase in revenue and the implementation of several cost reduction initiatives, the EBITDA margin for 2018 was impacted by factors beyond the Company's control:

- Increase by 34% in raw material cost (cost per kilogram). It is important to note that our contracts contain a clause allowing the pass-through of 100% of variation in product prices. Although revenue and cash flows were preserved, in such cases, our margins were impacted;
- One-off effects due to readjustments in working hours in Joinville;
- R\$59.1 million impact of the truck drivers' strike in May 2018, which resulted in: (i) direct impacts, in the amount of R\$14.3 million, resulting from unrecoverable sales, losses in productivity and lower dilution of fixed costs, and (ii) impacts of the measures (re-calculation of payroll, reduction of benefits to exporting companies - REINTEGRA, and application of the minimum freight rate), causing an impact of R\$44.8 million in the year. Excluding the effects arising from the strike, adjusted EBITDA would be R\$736.2 million in the period, which corresponds to 15.2% of net revenue for the period, or an increase of 120 percentage points from the margin of 14.0% recorded in 2018.



## INVESTMENTS IN PROPERTY, PLANT AND EQUIPMENT, AND INTANGIBLE ASSETS

Total investment in property, plant and equipment and intangible assets was R\$184.9 million in 2018, up by 49.0% compared to 2017. This amount corresponded to 3.8% of net revenues in the period.

| Consolidated (R\$ thousand)     |                |                |              |
|---------------------------------|----------------|----------------|--------------|
|                                 | 2018           | 2017           | Var. [%]     |
| <b>PP&amp;E</b>                 |                |                |              |
| Strategic investments           | 43,200         | 36,052         | 19.8%        |
| Maintenance and sustenance      | 122,660        | 71,133         | 72.4%        |
| Environment                     | 9,009          | 7,154          | 25.9%        |
| Interest and financial expenses | 1,967          | 1,606          | 22.5%        |
| <b>Intangible assets</b>        |                |                |              |
| Software                        | 5,707          | 4,060          | 40.6%        |
| Research and development        | 2,360          | 4,092          | -42.3%       |
| <b>Total</b>                    | <b>184,903</b> | <b>124,097</b> | <b>49.0%</b> |
| % revenue                       | 3.8%           | 3.3%           |              |

The increase in investments is mainly due to the execution of projects aimed at increasing productivity (including a new sand regenerator), the development of new products and a machine park. We also carried out important environmental and work safety investments.

The list of investments in affiliated and/or controlled companies, with the variations occurred during the year, is available in Note 12 (Investments) of the 2018 Financial Statements, which is part of this document.

## INDEBTEDNESS

The Company ended 2018 with net debt of R\$682.5 million, resulting in a net debt/adjusted EBITDA ratio of 1.01x. Debt breakdown was as follows: obligations in foreign currency accounts for 99% of total obligations (3% short-term debt and 97% in long-term debt), while 1% of obligations is denominated in BRL (37% short-term debt and 63% long-term debt). Regarding the cash balance, 40% is denominated in BRL and 60% is denominated in foreign currency.

| Consolidated (R\$ thousand)     |                  |                  |
|---------------------------------|------------------|------------------|
| INDEBTNESS                      | 2018             | 2017             |
| Short-term*                     | 47,591           | 458,472          |
| Long-term                       | 1,359,492        | 1,165,541        |
| <b>Gross debt</b>               | <b>1,407,083</b> | <b>1,624,013</b> |
| Cash and equivalents**          | 724,545          | 866,463          |
| <b>Net debt</b>                 | <b>682,538</b>   | <b>757,550</b>   |
| Gross debt/Adjusted EBITDA      | 2.08x            | 3.12x            |
| <b>Net debt/Adjusted EBITDA</b> | <b>1.01x</b>     | <b>1.45x</b>     |

\* Includes derivative & financial instruments

\*\* Includes financial investments

## WORKING CAPITAL

| Consolidated (R\$ thousand)         |           |           |
|-------------------------------------|-----------|-----------|
|                                     | 2018      | 2017      |
| <b>Balance sheet</b>                |           |           |
| Accounts receivable                 | 688,495   | 573,093   |
| Inventories                         | 523,623   | 419,492   |
| Accounts payable                    | 621,292   | 462,465   |
| Sales outstanding [days]            | 52        | 56        |
| Inventories outstanding [days]      | 47        | 49        |
| Payables outstanding [days]         | 56        | 53        |
| <b>Cash conversion cycle [days]</b> | <b>43</b> | <b>52</b> |

The reduction in the average sales outstanding period is mainly due to contractual negotiations with clients during the year.

In terms of inventories, we reduced the average outstanding period by 2 days despite the increase in volume produced, raw material costs and devaluation of the BRL.

The average outstanding payable period increased by 3 days due to several actions promoted to lengthen the term with current suppliers.

The combination of these factors resulted in a significant reduction in the cash conversion cycle, from 52 days in 2017 to 43 days in 2018.

## ▽ CASH FLOW

| Consolidated (R\$ thousand)            |                  |                  |               |
|----------------------------------------|------------------|------------------|---------------|
| CASH FLOW SUMMARY                      | 2018             | 2017             | Var.[%]       |
| <b>Cash at the beginning of period</b> | <b>865,368</b>   | <b>1,203,940</b> | <b>-28.1%</b> |
| Cash flow from operating activities    | 577,392          | 260,369          | 121.8%        |
| Cash flow from investing activities    | (166,588)        | (119,193)        | 39.8%         |
| Cash flow from financing activities    | (591,388)        | (448,591)        | 31.8%         |
| Effect of Exchange variation on cash   | 28,949           | (31,157)         | -             |
| <b>Increase (decrease) in cash</b>     | <b>(151,635)</b> | <b>(338,572)</b> | <b>-55.2%</b> |
| <b>Cash at the end of period</b>       | <b>713,733</b>   | <b>865,368</b>   | <b>-17.5%</b> |

The Company generated R\$577.4 million in cash from operating activities in 2018, the highest amount in the Company's history and accounting for approximately 85.3% of Adjusted EBITDA in the period.

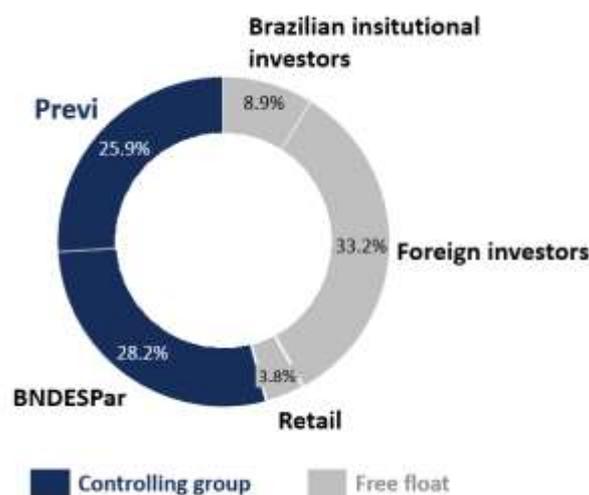
In terms of investment activities, R\$166.6 million was invested due to additions to property, plant and equipment and intangible assets.

As for financing activities, R\$591.4 million were used in 2018, mainly for the amortization of debts, in the amount of R\$414.6 million, as well as the payment of R\$175.0 million to our shareholders in the form of dividends and interest on capital.

The combination of these factors with the exchange rate effect on cash, resulted in a reduction in available cash in the amount of R\$151.6 million during the period, ending the year with R\$713.7 million in cash and equivalents.

## ▽ OWNERSHIP STRUCTURE

On December 31, 2018, Tupy's ownership structure was as follows:



The Company is subject to the rules of the Novo Mercado Arbitration Chamber, in accordance with Article 60 of the Bylaws.

## RELATIONSHIP WITH INDEPENDENT AUDITORS

In compliance with the provisions of CVM Instruction 381/03, dated January 14, 2003, Tupy S.A. preserves the independence of the auditor, in accordance with applicable regulations, for the contracting of services not related to the external audit. In the fiscal year ended December 31, 2018, the independent auditors only rendered services related to external auditing.

## EXECUTIVE OFFICER'S STATEMENT

In compliance with the provisions established under Article 25 of CVM Instruction No. 480, of December 7, 2009, Tupy S.A.'s Executive Board declares that it has reviewed, discussed and agreed with the opinion presented in the Independent Auditor's Report on the Financial Report, issued on this date, and the Financial Statements relating to the fiscal period ended on December 31, 2018.

\* \* \*

**TUPY S.A. AND SUBSIDIARIES****BALANCE SHEETS AT DECEMBER 31, 2018 AND DECEMBER 31, 2017****(All amounts in thousands of reais)****ASSETS**

|                                                | Note | Parent company   |                  | Consolidated     |                  |
|------------------------------------------------|------|------------------|------------------|------------------|------------------|
|                                                |      | 12/31/18         | 12/31/17         | 12/31/18         | 12/31/17         |
| <b>CURRENT ASSETS</b>                          |      |                  |                  |                  |                  |
| Cash and cash equivalents                      | 3    | 328,350          | 667,827          | 713,733          | 865,368          |
| Financial investments                          |      | -                | 1,077            | -                | 1,077            |
| Derivative financial instruments               | 31   | 6,781            | 18               | 10,812           | 18               |
| Trade account receivables                      | 4    | 329,043          | 280,213          | 688,495          | 573,093          |
| Inventories                                    | 5    | 234,188          | 216,609          | 523,623          | 419,492          |
| Tooling                                        |      | 37,280           | 25,694           | 162,445          | 102,000          |
| Income tax and social contribution recoverable | 6    | 49,919           | -                | 61,534           | 7,943            |
| Other taxes recoverable                        | 7    | 86,081           | 55,364           | 137,980          | 119,486          |
| Related parties                                | 9    | 5,982            | 5,540            | -                | -                |
| Notes and other receivables                    |      | 26,997           | 32,062           | 52,125           | 44,286           |
| <b>Total current assets</b>                    |      | <b>1,104,621</b> | <b>1,284,404</b> | <b>2,350,747</b> | <b>2,132,763</b> |
| <b>NON-CURRENT ASSETS</b>                      |      |                  |                  |                  |                  |
| Income tax and social contribution recoverable | 6    | 166,857          | 260,547          | 166,857          | 260,547          |
| Other taxes recoverable                        | 7    | 157,979          | 167,516          | 157,979          | 167,516          |
| Deferred income tax and social contribution    | 8    | 170,452          | 113,978          | 143,668          | 76,243           |
| Credits - Eletrobrás                           | 10   | 170,974          | 102,170          | 170,974          | 102,170          |
| Judicial deposits and other                    |      | 40,076           | 50,139           | 41,171           | 51,234           |
| Investments in equity instruments              |      | 1,789            | 1,442            | 8,303            | 6,762            |
| Properties for investments                     | 11   | -                | -                | 6,363            | 6,544            |
| Investments                                    | 12   | 1,793,940        | 1,441,790        | -                | -                |
| Property, plant and equipment                  | 13   | 734,611          | 827,588          | 1,557,292        | 1,509,236        |
| Intangible assets                              | 14   | 54,842           | 58,277           | 304,837          | 296,141          |
| <b>Total non-current assets</b>                |      | <b>3,291,520</b> | <b>3,023,447</b> | <b>2,557,444</b> | <b>2,476,393</b> |
| <b>Total assets</b>                            |      | <b>4,396,141</b> | <b>4,307,851</b> | <b>4,908,191</b> | <b>4,609,156</b> |

The accompanying notes are an integral part of these financial statements.

**TUPY S.A. AND SUBSIDIARIES****BALANCE SHEETS AT DECEMBER 31, 2018 AND DECEMBER 31, 2017****(All amounts in thousands of reais)****LIABILITIES**

|                                                                   | Note | Parent company   |                  | Consolidated     |                  |
|-------------------------------------------------------------------|------|------------------|------------------|------------------|------------------|
|                                                                   |      | 12/31/18         | 12/31/17         | 12/31/18         | 12/31/17         |
| <b>CURRENT LIABILITIES</b>                                        |      |                  |                  |                  |                  |
| Trade accounts payables                                           |      | 260,607          | 216,687          | 621,292          | 462,465          |
| Loans and financing                                               | 15   | 49,792           | 458,031          | 47,431           | 456,015          |
| Derivative financial instruments                                  | 31   | -                | 404              | 160              | 2,457            |
| Income taxes payable                                              |      | -                | -                | 8,992            | 7,318            |
| Other taxes payable                                               |      | 2,810            | 2,695            | 30,012           | 23,930           |
| Salaries, social security charges and profit sharing              | 16   | 125,084          | 111,009          | 163,959          | 137,735          |
| Advances from customers                                           |      | 37,064           | 22,898           | 159,724          | 63,997           |
| Related parties                                                   | 9    | 1,239            | 998              | -                | -                |
| Dividends and interest on capital                                 |      | 37,624           | 50,076           | 37,624           | 50,076           |
| Provision for tax, civil, social security and labor contingencies | 18   | 28,043           | 16,115           | 28,043           | 16,247           |
| Notes and other payables                                          |      | 149,504          | 133,924          | 77,526           | 70,300           |
| <b>Total current liabilities</b>                                  |      | <b>691,767</b>   | <b>1,012,837</b> | <b>1,174,763</b> | <b>1,290,540</b> |
| <b>NON-CURRENT LIABILITIES</b>                                    |      |                  |                  |                  |                  |
| Borrowings                                                        | 15   | 1,363,887        | 1,170,308        | 1,359,492        | 1,165,541        |
| Provision for tax, civil, social security and labor contingencies | 18   | 136,204          | 134,401          | 136,215          | 134,411          |
| Retirement benefit obligations                                    | 17   | -                | -                | 32,965           | 27,927           |
| Other long term liabilities                                       |      | 4,320            | 6,987            | 4,793            | 7,419            |
| <b>Total non-current liabilities</b>                              |      | <b>1,504,411</b> | <b>1,311,696</b> | <b>1,533,465</b> | <b>1,335,298</b> |
| <b>EQUITY</b>                                                     |      |                  |                  |                  |                  |
| Share capital                                                     | 19   | 1,060,301        | 1,060,301        | 1,060,301        | 1,060,301        |
| Share issuance costs                                              |      | (6,541)          | (6,541)          | (6,541)          | (6,541)          |
| Share-based payments                                              |      | 8,564            | 9,172            | 8,564            | 9,172            |
| Treasury shares                                                   |      | (292)            | -                | (292)            | -                |
| Carrying value adjustments                                        |      | 589,910          | 492,399          | 589,910          | 492,399          |
| Income reserves                                                   |      | 548,021          | 427,987          | 548,021          | 427,987          |
| <b>Total equity</b>                                               |      | <b>2,199,963</b> | <b>1,983,318</b> | <b>2,199,963</b> | <b>1,983,318</b> |
| <b>Total liabilities and equity</b>                               |      | <b>4,396,141</b> | <b>4,307,851</b> | <b>4,908,191</b> | <b>4,609,156</b> |

The accompanying notes are an integral part of these financial statements.

## TUPY S.A. AND SUBSIDIARIES

## STATEMENTS OF INCOME

PERIOD ENDED DECEMBER 31, 2018 AND 2017

(All amounts in thousands of reais, except earnings per share)

|                                                     | Note | Parent company |             | Consolidated |             |
|-----------------------------------------------------|------|----------------|-------------|--------------|-------------|
|                                                     |      | 12/31/18       | 12/31/17    | 12/31/18     | 12/31/17    |
| NET REVENUE                                         | 20   | 2,568,227      | 2,163,995   | 4,828,216    | 3,706,151   |
| Cost of products sold                               | 21   | (2,093,923)    | (1,834,042) | (4,032,290)  | (3,099,966) |
| GROSS PROFIT                                        |      | 474,304        | 329,953     | 795,926      | 606,185     |
| Selling expenses                                    | 21   | (112,267)      | (97,979)    | (185,599)    | (151,530)   |
| Administrative expenses                             | 21   | (122,012)      | (112,475)   | (152,060)    | (137,280)   |
| Management fees                                     | 9    | (10,785)       | (11,624)    | (10,785)     | (11,624)    |
| Other operating expenses, net except impairment     | 23   | (69,401)       | (87,695)    | (111,230)    | (123,907)   |
| Share of results of subsidiaries, except impairment | 12   | 154,821        | 130,536     | -            | -           |
| INCOME BEFORE IMPAIRMENT                            |      | 314,660        | 150,716     | 336,252      | 181,844     |
| Impairment reversal                                 | 23   | -              | -           | 33,631       | 8,301       |
| PROFIT BEFORE FINANCE RESULTS<br>AND TAXES          |      | 314,660        | 150,716     | 369,883      | 190,145     |
| Finance costs                                       | 22   | (111,857)      | (146,307)   | (114,321)    | (149,629)   |
| Finance income                                      | 22   | 85,450         | 101,588     | 89,641       | 105,586     |
| Monetary and foreign exchange variations, net       | 22   | 8,463          | (1,997)     | 12,065       | (12,165)    |
| INCOME BEFORE TAXATION                              |      | 296,716        | 104,000     | 357,268      | 133,937     |
| Income tax and social contribution                  | 24   | (24,995)       | 49,401      | (85,547)     | 19,464      |
| NET INCOME FOR THE YEAR                             |      | 271,721        | 153,401     | 271,721      | 153,401     |
| EARNINGS PER SHARE                                  |      |                |             |              |             |
| Basic earnings per share                            | 25   | 1.88463        | 1.06397     | 1.88463      | 1.06397     |
| Diluted earnings per share                          | 25   | 1.87884        | 1.05961     | 1.87884      | 1.05961     |

The accompanying notes are an integral part of these financial statements.

**TUPY S.A. AND SUBSIDIARIES****STATEMENTS OF COMPREHENSIVE INCOME**  
**PERIOD ENDED DECEMBER 31, 2018 AND 2017****(All amounts in thousands of reais, except earnings per share)**

|                                                                                       | Note | Parent company |          | Consolidated |          |
|---------------------------------------------------------------------------------------|------|----------------|----------|--------------|----------|
|                                                                                       |      | 12/31/18       | 12/31/17 | 12/31/18     | 12/31/17 |
| <b>NET INCOME FOR THE YEAR</b>                                                        |      | 271,721        | 153,401  | 271,721      | 153,401  |
| <b>Components of other comprehensive income<br/>to be reclassified to the results</b> |      |                |          |              |          |
| Foreign exchange variation of investees located abroad                                | 12   | 237,715        | 28,543   | 237,715      | 28,543   |
| Hedge of net investment abroad                                                        | 31   | (197,810)      | (12,910) | (197,810)    | (12,910) |
| Tax effect on hedge of net investment abroad                                          |      | 67,255         | 4,388    | 67,255       | 4,388    |
| <b>TOTAL COMPREHENSIVE INCOME FOR THE YEAR</b>                                        |      | 378,881        | 173,422  | 378,881      | 173,422  |

The accompanying notes are an integral part of these financial statements.

TUPY S.A. AND SUBSIDIARIES

STATEMENT OF CHANGES IN EQUITY  
(All amounts in thousands of reais)

| Note                                                                     | Share capital    | Share issue cost | Shared based payments | Treasury stock | Carrying value adjustments      |                             | Revenue reserves |                         | Retained earnings (losses) | Total            |
|--------------------------------------------------------------------------|------------------|------------------|-----------------------|----------------|---------------------------------|-----------------------------|------------------|-------------------------|----------------------------|------------------|
|                                                                          |                  |                  |                       |                | Exchange variation of investees | Deemed cost of fixed assets | Legal reserve    | Reserve for investments |                            |                  |
| <b>AT DECEMBER 31, 2016</b>                                              | <b>1,060,301</b> | <b>(6,541)</b>   | <b>7,580</b>          | -              | <b>420,911</b>                  | <b>61,215</b>               | <b>60,553</b>    | <b>403,113</b>          | -                          | <b>2,007,132</b> |
| <b>Comprehensive income for the period</b>                               |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Profit for the period                                                    | -                | -                | -                     | -              | -                               | -                           | -                | -                       | 153,401                    | 153,401          |
| Realization of carrying value adjustments                                | -                | -                | -                     | -              | -                               | (9,748)                     | -                | -                       | 9,748                      | -                |
| Foreign exchange variation of investees located abroad                   | 12               | -                | -                     | -              | 28,543                          | -                           | -                | -                       | -                          | 28,543           |
| Hedge of net investment abroad                                           | 31               | -                | -                     | -              | (12,910)                        | -                           | -                | -                       | -                          | (12,910)         |
| Tax impact on hedge of net investment abroad                             | -                | -                | -                     | -              | 4,388                           | -                           | -                | -                       | -                          | 4,388            |
| Total comprehensive income for the year                                  | 43               | -                | -                     | -              | 20,021                          | (9,748)                     | -                | -                       | 163,149                    | 173,422          |
| <b>Contributions from stockholders and distributions to stockholders</b> |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Management stock option plan                                             | -                | -                | 3,504                 | -              | -                               | -                           | -                | -                       | -                          | 3,504            |
| Realization of management stock option plan                              | -                | -                | (1,172)               | -              | -                               | -                           | -                | -                       | 1,172                      | -                |
| (-) Shares in treasury acquired                                          | -                | -                | (740)                 | -              | -                               | -                           | -                | -                       | -                          | (740)            |
| Allocation of profit:                                                    |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Legal reserve                                                            | 19               | -                | -                     | -              | -                               | -                           | 7,670            | -                       | (7,670)                    | -                |
| Investment reserve                                                       | 19               | -                | -                     | -              | -                               | -                           | -                | 156,651                 | (156,651)                  | -                |
| Interest on capital                                                      | 19               | -                | -                     | -              | -                               | -                           | -                | (200,000)               | -                          | (200,000)        |
| Total contributions from stockholders and distributions to stockholders  | -                | -                | 1,592                 | -              | -                               | -                           | 7,670            | (43,349)                | (163,149)                  | (197,236)        |
| <b>AT DECEMBER 31, 2017</b>                                              | <b>1,060,301</b> | <b>(6,541)</b>   | <b>9,172</b>          | -              | <b>440,932</b>                  | <b>51,467</b>               | <b>68,223</b>    | <b>359,764</b>          | -                          | <b>1,983,318</b> |
| <b>Comprehensive income for the period</b>                               |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Profit for the period                                                    | -                | -                | -                     | -              | -                               | -                           | -                | -                       | 271,721                    | 271,721          |
| Realization of carrying value adjustments                                | -                | -                | -                     | -              | -                               | (9,649)                     | -                | -                       | 9,649                      | -                |
| Foreign exchange variation of investees located abroad                   | 12               | -                | -                     | -              | 237,715                         | -                           | -                | -                       | -                          | 237,715          |
| Hedge of net investment abroad                                           | 31               | -                | -                     | -              | (197,810)                       | -                           | -                | -                       | -                          | (197,810)        |
| Tax impact on hedge of net investment abroad                             | -                | -                | -                     | -              | 67,255                          | -                           | -                | -                       | -                          | 67,255           |
| Total comprehensive income for the year                                  | -                | -                | -                     | -              | 107,160                         | (9,649)                     | -                | -                       | 281,370                    | 378,881          |
| <b>Contributions from stockholders and distributions to stockholders</b> |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Management stock option plan                                             | -                | -                | 2,073                 | -              | -                               | -                           | -                | -                       | -                          | 2,073            |
| Realization of management stock option plan                              | -                | -                | (1,164)               | -              | -                               | -                           | -                | -                       | 1,164                      | -                |
| (-) Treasury stock                                                       | -                | -                | -                     | (1,809)        | -                               | -                           | -                | -                       | -                          | (1,809)          |
| (-) Stock options exercised                                              | -                | -                | (1,517)               | 1,517          | -                               | -                           | -                | -                       | -                          | -                |
| Allocation of profit:                                                    |                  |                  |                       |                |                                 |                             |                  |                         |                            |                  |
| Investment reserve                                                       | 19               | -                | -                     | -              | -                               | -                           | 13,586           | -                       | (13,586)                   | -                |
| Interest on capital                                                      | 19               | -                | -                     | -              | -                               | -                           | -                | 268,948                 | (268,948)                  | -                |
| Interest on capital                                                      | 19               | -                | -                     | -              | -                               | -                           | -                | (162,500)               | -                          | (162,500)        |
| Total contributions from stockholders and distributions to stockholders  | -                | -                | (608)                 | (292)          | -                               | -                           | 13,586           | 106,448                 | (281,370)                  | (162,236)        |
| <b>AT DECEMBER 31, 2018</b>                                              | <b>1,060,301</b> | <b>(6,541)</b>   | <b>8,564</b>          | <b>(292)</b>   | <b>548,092</b>                  | <b>41,818</b>               | <b>81,809</b>    | <b>466,212</b>          | -                          | <b>2,199,963</b> |

The accompanying notes are an integral part of these financial statements.

## TUPY S.A. AND SUBSIDIARIES

## STATEMENTS OF CASH FLOW

PERIOD ENDED DECEMBER 31, 2018 AND 2017

(All amounts in thousands of reais, except earnings per share)

|                                                                                     | Note      | Parent company   |                  | Consolidated     |                  |
|-------------------------------------------------------------------------------------|-----------|------------------|------------------|------------------|------------------|
|                                                                                     |           | 12/31/18         | 12/31/17         | 12/31/18         | 12/31/17         |
| <b>Cash flow from operating activities:</b>                                         |           |                  |                  |                  |                  |
| Profit for the period before income tax and social contribution                     |           | 296,716          | 104,000          | 357,268          | 133,937          |
| Adjustment to reconcile profit (losses) with cash provided by operating activities: |           |                  |                  |                  |                  |
| Depreciation and amortization                                                       | 13 and 14 | 138,640          | 149,660          | 279,377          | 257,261          |
| Impairment                                                                          | 13 and 14 | -                | -                | (33,631)         | (8,301)          |
| Share of results of subsidiaries                                                    | 12        | (154,821)        | (130,536)        | -                | -                |
| Disposals of property, plant and equipment                                          |           | 22,901           | 2,767            | 28,985           | 7,886            |
| Interest accrued and foreign exchange variations                                    |           | 72,332           | 132,781          | 83,639           | 141,413          |
| Provision for impairment of trade receivables                                       |           | 41               | 456              | (624)            | 1,605            |
| Provision for losses on inventory                                                   |           | (5,200)          | 7,738            | (3,478)          | 8,958            |
| Provision for contingencies                                                         | 18        | 54,779           | 52,100           | 54,648           | 49,204           |
| Stock option plan                                                                   |           | 2,073            | 2,764            | 2,073            | 2,764            |
| Change in monetary exchange - IPI premium credit                                    |           | 3,688            | 2,691            | 3,688            | 2,691            |
| Change in Eletrobrás credit                                                         |           | (69,151)         | 203              | (69,151)         | 203              |
|                                                                                     |           | 361,998          | 324,624          | 702,794          | 597,621          |
| <b>Changes in operating assets and liabilities:</b>                                 |           |                  |                  |                  |                  |
| Trade accounts receivables                                                          |           | (12,454)         | (13,314)         | (22,424)         | (104,159)        |
| Inventories                                                                         |           | (12,379)         | 26,879           | (72,954)         | (17,279)         |
| Tooling                                                                             |           | (11,586)         | (4,659)          | (39,929)         | 38,009           |
| Other taxes recoverable                                                             |           | 3,801            | (41,959)         | 21,162           | (70,318)         |
| Notes and other receivables                                                         |           | 5,065            | (2,619)          | (7,902)          | (12,103)         |
| Judicial deposits and other                                                         |           | 10,063           | (3,633)          | 10,063           | (3,723)          |
| Trade payables                                                                      |           | 19,174           | 16,928           | 66,378           | 145,736          |
| Other taxes payable                                                                 |           | 115              | 200              | 1,207            | 5,593            |
| Salaries, social security charges and profit sharing                                |           | 14,075           | 20,289           | 19,937           | 27,088           |
| Advances from customers                                                             |           | 14,166           | 60               | 87,495           | (46,072)         |
| Notes and other payables                                                            |           | 16,776           | 19,602           | 7,391            | (37,649)         |
| Retirement benefit obligations                                                      |           | -                | -                | 11,764           | 5,409            |
| Other long term liabilities                                                         |           | (42,827)         | (39,630)         | (42,786)         | (39,034)         |
| <b>Cash generated by operations</b>                                                 |           | <b>365,987</b>   | <b>302,768</b>   | <b>742,196</b>   | <b>489,119</b>   |
| Interest paid                                                                       |           | (100,321)        | (133,380)        | (96,439)         | (131,414)        |
| Income tax and social contribution paid                                             |           | -                | -                | (68,365)         | (97,336)         |
| <b>Net cash generated from operating activities</b>                                 |           | <b>265,666</b>   | <b>169,388</b>   | <b>577,392</b>   | <b>260,369</b>   |
| <b>Cash flow from investment activities:</b>                                        |           |                  |                  |                  |                  |
| Cash from capital reduction in subsidiaries                                         | 12        | 40,386           | 171,980          | -                | -                |
| Additions to fixed assets or intangibles                                            | 13 and 14 | (64,555)         | (49,210)         | (168,560)        | (122,908)        |
| Cash generated on PPE disposals                                                     |           | 3,861            | 15,167           | 895              | 4,792            |
| Financial investment                                                                |           | 1,077            | (1,077)          | 1,077            | (1,077)          |
| Subsidiaries and associates                                                         |           | (201)            | (713)            | -                | -                |
| <b>Cash used in investment activities</b>                                           |           | <b>(19,432)</b>  | <b>136,147</b>   | <b>(166,588)</b> | <b>(119,193)</b> |
| <b>Cash flow from financing activities:</b>                                         |           |                  |                  |                  |                  |
| Payment of loans                                                                    |           | (414,627)        | (282,618)        | (414,627)        | (282,618)        |
| Interest on capital and dividends paid                                              |           | (165,590)        | (156,756)        | (165,590)        | (156,756)        |
| Income tax of interest on capital and dividends paid                                |           | (9,362)          | (9,217)          | (9,362)          | (9,217)          |
| Treasury stock                                                                      |           | (1,809)          | -                | (1,809)          | -                |
| <b>Cash used in financing activities</b>                                            |           | <b>(591,388)</b> | <b>(448,591)</b> | <b>(591,388)</b> | <b>(448,591)</b> |
| Effect of exchange rate differences on cash for the period                          |           | 5,677            | 1,846            | 28,949           | (31,157)         |
| <b>Decrease in cash and cash equivalents</b>                                        |           | <b>(339,477)</b> | <b>(141,210)</b> | <b>(151,635)</b> | <b>(338,572)</b> |
| Cash and cash equivalents at the beginning of the period                            |           | 667,827          | 809,037          | 865,368          | 1,203,940        |
| <b>Cash and cash equivalents at the end of the period</b>                           |           | <b>328,350</b>   | <b>667,827</b>   | <b>713,733</b>   | <b>865,368</b>   |

The accompanying notes are an integral part of these financial statements.

## TUPY S.A. AND SUBSIDIARIES

**STATEMENT OF VALUE ADDED**  
**PERIOD ENDED DECEMBER 31, 2018 AND 2017**  
 (All amounts in thousands of reais, except earnings per share)

|                                                                           | Note    | Parent company   |                | Consolidated     |                  |
|---------------------------------------------------------------------------|---------|------------------|----------------|------------------|------------------|
|                                                                           |         | 12/31/18         | 12/31/17       | 12/31/18         | 12/31/17         |
| <b>Origination of value added</b>                                         |         | 2,799,644        | 2,334,353      | 5,060,298        | 3,875,360        |
| Sale of products, net of returns and rebates                              | 20      | 2,799,685        | 2,334,809      | 5,059,674        | 3,876,965        |
| Provision for impairment of trade receivables                             |         | (41)             | (456)          | 624              | (1,605)          |
| <b>(-) Inputs acquired from third parties</b>                             |         | (1,865,134)      | (1,537,282)    | (3,332,745)      | (2,556,393)      |
| Raw materials and processing material consumed                            |         | (1,399,689)      | (1,053,794)    | (2,417,130)      | (1,755,539)      |
| Materials, energy, third party services and other                         |         | (465,445)        | (483,488)      | (915,615)        | (800,854)        |
| <b>GROSS VALUE ADDED</b>                                                  |         | 934,510          | 797,071        | 1,727,553        | 1,318,967        |
| <b>Retentions:</b>                                                        |         | (138,640)        | (149,660)      | (245,746)        | (248,960)        |
| Depreciation and amortization                                             | 13 e 14 | (138,640)        | (149,660)      | (279,377)        | (257,261)        |
| Impairment                                                                |         | -                | -              | 33,631           | 8,301            |
| <b>Net value added generated by the Company</b>                           |         | 795,870          | 647,411        | 1,481,807        | 1,070,007        |
| <b>Value added received through transfer</b>                              |         | 240,271          | 232,124        | 89,641           | 105,586          |
| Share of results of subsidiaries                                          | 12      | 154,821          | 130,536        | -                | -                |
| Finance income                                                            | 22      | 85,450           | 101,588        | 89,641           | 105,586          |
| <b>VALUE ADDED TO DISTRIBUTE</b>                                          |         | <b>1,036,141</b> | <b>879,535</b> | <b>1,571,448</b> | <b>1,175,593</b> |
| <b>Distribution of value added</b>                                        |         |                  |                |                  |                  |
| <b>Personnel</b>                                                          |         | 584,568          | 577,665        | 1,059,475        | 828,993          |
| Employees                                                                 |         | 410,089          | 399,536        | 871,430          | 640,470          |
| Social charges - Government Severance Indemnity Fund for Employees (FGTS) |         | 29,728           | 30,998         | 29,728           | 30,998           |
| Profit sharing                                                            |         | 43,088           | 37,614         | 55,258           | 46,677           |
| Management fees                                                           |         | 10,785           | 11,624         | 10,785           | 11,624           |
| Workplace healthcare and safety                                           |         | 66,546           | 72,015         | 66,546           | 72,015           |
| Food                                                                      |         | 10,569           | 10,211         | 10,569           | 10,211           |
| Professional education, qualification and development                     |         | 1,114            | 795            | 1,528            | 1,163            |
| Other amounts                                                             |         | 12,649           | 14,872         | 13,631           | 15,835           |
| <b>Government</b>                                                         |         | 76,458           | 165            | 137,996          | 31,405           |
| Federal taxes and contributions                                           |         | 29,452           | (27,640)       | 90,979           | 3,590            |
| State taxes and rates                                                     |         | 40,454           | 20,060         | 40,455           | 20,061           |
| Municipal taxes, rates and other                                          |         | 6,552            | 7,745          | 6,562            | 7,754            |
| <b>Third party capital</b>                                                |         | 103,394          | 148,304        | 102,256          | 161,794          |
| Finance costs                                                             | 22      | 111,857          | 146,307        | 114,321          | 149,629          |
| Monetary and foreign exchange variations, net                             | 22      | (8,463)          | 1,997          | (12,065)         | 12,165           |
| <b>Own capital</b>                                                        |         | 271,721          | 153,401        | 271,721          | 153,401          |
| Retained earnings                                                         |         | 271,721          | 153,401        | 271,721          | 153,401          |
| <b>TOTAL VALUE ADDED</b>                                                  |         | <b>1,036,141</b> | <b>879,535</b> | <b>1,571,448</b> | <b>1,175,593</b> |

The accompanying notes are an integral part of these financial statements.

(A free translation of the original in Portuguese)

**NOTES**

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(A free translation of the original in Portuguese)

**1. GENERAL INFORMATION**

Tupy S.A. (the "Parent company") and its subsidiaries (together the "Company" or "Consolidated") have domestic and foreign operations in the iron casting markets, especially engine blocks and cylinder heads. The Company also operate in the transportation, infrastructure and agriculture (blocks, cylinder heads and parts) and hydraulics (steel shots and iron bar) segments. With a diversified customer base in the Americas, Europe and Asia. The Company has plants in Brazil, at Joinville and Maua, and Mexico, at Saltillo and Ramos Arizpe. In addition, the Parent Company has investments in companies abroad that operate in logistics, trading and technical assistance.

Tupy S.A. is a publicly-held corporation headquartered in Joinville, State of Santa Catarina, listed on the São Paulo Stock Exchange (BOVESPA: ticker TUPY3) and in the Novo Mercado segment of B3 (former BM&FBOVESPA).

The issue of these financial statements was approved by the Board of Directors on March 14, 2019.

**2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES****2.1 Statement of compliance and basis of preparation**

The Company's financial statements which have been prepared in accordance with accounting practices adopted in Brazil, including the pronouncements, interpretations and orientations, issued by the Brazilian Accounting Pronouncements Committee (CPC), as well as in accordance with the International Financial Reporting Standards (IFRS), issued by the International Accounting Standards Board (IASB), and all financial statements' material information, and only material information, is being disclosed, which are consistent with those used by management.

The presentation of statements of value added (DVA), for parent company and consolidated statements, is required by the Brazilian corporate legislation for listed companies. These statements were not required by IFRS. As a result, for IFRS, those statements are considered supplementary information, without any impact for the financial statements.

The financial statements have been prepared under the historical cost convention, except for certain financial instruments measured at their fair values, as described in the accounting policies. The historical cost is generally based on the fair value of the consideration paid in exchange for assets.

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgment in the process of applying the Company's accounting policies. The areas involving a higher degree of judgment or complexity, or areas where assumptions and estimates are significant to the financial statements, are disclosed in Note 2.4.

**2.2 Consolidation**

Subsidiaries are all entities over which the Company has control. Subsidiaries are fully consolidated from the date on which control is transferred. Control is obtained when the Company is exposed or entitled to variable returns based on its investment with the subsidiary and has the capacity to affect those returns through the power exercised in relation to the subsidiary. They are deconsolidated from the date that control ceases. In this situation, at the date of loss of control, the corresponding assets (including goodwill), liabilities, non-controlling interest and other equity

components are written off, while any resulting gain or loss is recorded in the income statement. The consolidated subsidiaries at December 31, 2018 and 2017 are:

|                                                          | Interest* (%) | Functional currency | Headquarters |            |
|----------------------------------------------------------|---------------|---------------------|--------------|------------|
| <b>Direct subsidiaries</b>                               |               |                     |              |            |
| Tupy Mexico Saltillo, S.A. de C.V.                       | (a)           | 100,00              | U.S. dollar  | Mexico     |
| Technocast, S.A. de C.V.                                 | (a)           | 100,00              | U.S. dollar  | Mexico     |
| Servicios Industriales Technocast, S.A. de C.V.          | (b)           | 100,00              | U.S. dollar  | Mexico     |
| Tupy American Foundry Corporation                        | (c)           | 100,00              | U.S. dollar  | USA        |
| Tupy Europe GmbH                                         | (c)           | 100,00              | EURO         | Germany    |
| Tupy Overseas S.A.                                       | (d)           | 100,00              | U.S. dollar  | Luxembourg |
| Tupy American Iron & Alloys Corporation                  | (e)           | 100,00              | U.S. dollar  | USA        |
| Tupy Agroenergética Ltda.                                | (f)           | 100,00              | Real         | Brazil     |
| Sociedade Técnica de Fundições Gerais S.A. - Sofunge "ir | (g)           | 100,00              | Real         | Brazil     |
| <b>Indirect subsidiary</b>                               |               |                     |              |            |
| Diesel Servicios Industriales, S.A. de C.V.              | (b)           | 100,00              | U.S. dollar  | Mexico     |

(\*) Interest in capital and in voting capital.

Main subsidiaries' activities:

- (a) Industrial plants for the automotive products segment.
- (b) Rendering of industrial services for subsidiaries in Mexico.
- (c) Companies abroad, which operate as an extension of the activities in Brazil in logistics, trading and technical assistance for the automotive products segment.
- (d) Company abroad, which was established for the purpose of issuing bonds in the international market.
- (e) Company abroad, that has functioned as an extension of the activities of Brazil for the hydraulic segment and which is currently without activity.
- (f) A company that has acted with reforestation activities and is currently without activity.
- (g) Company in liquidation process, with no current activity.

Transactions, balances and unrealized gains on transactions between Group companies are eliminated. Unrealized losses are also eliminated, unless the transaction provides evidence of impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the Company.

## 2.3 Foreign currency translation

### a. Functional and presentation currency

Items included in the financial statements of each of the Consolidated entities are measured using the currency of the primary economic environment in which the entity operates ("functional currency").

The parent company and consolidated financial statements are presented in Brazilian Real (R\$), which is the Company's functional currency.

### b. Transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or the dates of valuation when items are remeasured.

Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the statement of income.

Foreign exchange gains and losses that relate to borrowings and cash and cash equivalents are presented in the statement of income within "Monetary and foreign exchange variations, net". All other foreign exchange gains and losses are presented in the statement of income within "Other operating income (expenses), net".

Translation differences on monetary securities denominated in foreign currency carried at amortized cost are recorded in the statement of income. Translation differences on non-monetary financial assets and liabilities such as equities held at fair value through profit or loss are recognized in profit or loss as part of the fair value gain or loss. Translation differences on non-monetary financial assets are included in the "Carrying value adjustments" account, within equity until the write off of the net investment, when they are recognized in the statement of income. Charges and tax effects attributed to exchange variation on these loans are also recognized in shareholders' equity.

**c. Subsidiaries with a different functional currency**

The results and financial position of all the Consolidated entities (none of which has the currency of a hyper-inflationary economy) that have a functional currency different from the presentation currency are translated into the presentation currency as follows:

- Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet.
- Income and expenses for each statement of income are translated at the average exchange rate.
- All resulting exchange differences are recognized as a separate component of equity, in the account "Carrying value adjustments".

On consolidation, foreign exchange differences arising from the translation of the net investment in foreign operations, and of borrowings and other foreign currency instruments designated as hedges of such investments, are taken to equity. When a foreign operation is partially disposed of or sold, foreign exchange differences that were recorded in equity are recognized in the statement of income as part of the gain or loss on sale.

Goodwill and fair value adjustments arising on the acquisition of a foreign entity are treated as assets and liabilities of the foreign entity and translated at the closing rate.

**2.4 Use of critical accounting estimates and judgments**

The preparation of Parent Company and Consolidated annual financial statements requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the amounts reported for assets, liabilities, revenue and expenses. The estimates and associated assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an ongoing basis. The effects arising from revised accounting estimates are recognized in the period when the estimates are revised if

the revision affects only this period, or also in subsequent periods, when the revision impacts both the current and future periods. The main judgments are presented below:

**a. Deferred income tax and social contribution**

The Company recognizes in its financial statements the effect of deferred income tax and social contribution arising from tax losses and/or temporary differences. A provision for impairment of tax assets is recognized when it is not probable that these assets will be recovered.

The recognition of a provision for tax assets and liabilities or deferred tax, and provisions for tax losses, requires the Company's management to make estimates. For each future tax credit, the Company assesses the likelihood of a portion or the totality of the tax asset not being recovered. The amount of the valuation allowance depends on the evaluation of the likelihood of generation of taxable profit based on the production and planning of sales, prices, operating costs and other expenditures.

**b. Useful life of property, plant and equipment**

The Company recognizes the depreciation of its property, plant and equipment based on their estimated useful lives, which is reviewed in annual basis, which is in accordance with the industry practices, as well as previous experiences, reflecting the economic useful lives of property, plant and equipment. However, actual useful lives may differ depending on the technological update of each plant. Useful lives of property, plant and equipment also affect recoverability tests, when necessary.

The Company does not believe that there is evidence of material changes in the estimates and assumptions.

**c. Impairment of assets**

The Company tests annually its intangible assets and other long-term assets whenever events and circumstances indicate that the estimated discounted cash flows to be generated by such assets are lower than the book value of these items.

Cash flow estimates are based on historical results adjusted to reflect the best market estimate and the Company's operating conditions. The estimates of actual amounts used by the Company to calculate impairment losses, if any, represent the Company's best estimate based on expected cash flows, industry tendencies and reference to rates and market operations. Impairment losses may arise also from the disposal of assets.

**d. Provision for tax, civil, social security and labor contingencies**

Provisions for tax, civil, social security and labor contingencies are recognized only when the Company's legal department and legal advisors consider that the likelihood of loss or obligation to payment is probable. Contingencies are recorded when the amount of loss can be reasonably estimated. By their nature, contingencies will be settled when one or more future events happen or not. Typically, the Company does not have influence over whether these events happen or not, thus making it difficult to make accurate estimates about when these events will happen. The evaluation of these liabilities, particularly in the uncertainty of the Brazilian legal environment, but also in other jurisdictions, requires Management to use significant estimates and judgments concerning the results of future events.

**e. Eletrobras**

The credit against Eletrobras is registered and valued at the amount restated at December 31, 2018 in accordance with criteria and assumptions determined in an irrevocable court decision. This credit has embedded derivative derived from the option to realize, the partial or total credit, in cash or in shares of Eletrobras. As their choice. Those credits are adjusted to fair value, in order to reflect the lower and more probable realization value in favor of Company.

**2.5 Company-specific accounting policies****a. Cash and cash equivalents**

Cash equivalents are held for the purpose of attended short-term cash commitments, not for investment or other purposes. The Company considers investments as cash equivalents considering these investments are immediately convertible in cash and there is no significant risk of change in value. Therefore, an investment typically qualifies as cash equivalent when it has a short-term maturity, for example three months or less, from the date of the engagement. The conditions of these investments are presented in Note 3.

**b. Inventory**

Inventories are carried at the average acquisition and/or production cost, considering the full manufacturing costs absorption method, adjusted to the net realizable value, when applicable.

The analysis for recording a provision is based on the inventory applicability, recoverability, expected realization and evidence of obsolescence. These provision are reviewed and adjusted at each reporting date.

**c. Tooling**

Refer to tools used in production to complete contracts with customers. They are carried at the acquisition and production cost, less the provision for adjustment to probable realizable values, when applicable. When completed, the tools are billed to customers and remain in the Company under free-lease agreements, to be used in the production process.

**d. Financial assets**

The Company classifies its financial assets in the following categories: at fair value through profit or amortized cost. The classification depends on the purpose for which the financial assets were acquired.

**(i) Recognition and measurement**

Classifications of financial assets are based on the Company's business model for the management of these assets in the characteristics of contractual cash flows, and are classified as follows:

- Debt instruments measured at amortized cost ("CA");
- Debt instruments measured at fair value through other comprehensive income ("VJORA");
- Debt instruments, derivatives, equity instruments and debt instruments measured at fair value through profit or loss ("VJR");

The Company determines the classification of financial assets at the time of its initial recognition, when it becomes part of the contractual provisions of the instrument.

Financial assets are initially recognized at fair value, plus, in the case of investments not designated at fair value through profit or loss, transaction costs that are directly attributable to the acquisition of financial assets.

The Company's financial assets include cash and cash equivalents, trade accounts receivable and other accounts receivable, other loans and receivables are classified as financial assets at amortized cost.

**(ii) Subsequent measurement**

Subsequent measurement of financial assets depends on their classification, which can be as follows:

- At amortized cost

They should be measured at amortized cost if both of the following conditions are met:

(a) the financial asset is maintained within a business model whose objective is to maintain financial assets in order to receive contractual cash flows; and

(b) the contractual terms of the financial asset give rise, on specified dates, to cash flows that exclusively comprise payments of principal and interest on the principal amount outstanding.

- Fair value through other comprehensive income

Financial assets should be measured at fair value through other comprehensive income if both of the following conditions are met:

(a) the financial asset is maintained within a business model whose objective is achieved by both the receipt of contractual cash flows and the sale of financial assets; and

(b) the contractual terms of the financial asset give rise, on specified dates, to cash flows that exclusively comprise principal and interest payments on the principal amount outstanding.

- Fair value through profit or loss

Financial assets must be measured at fair value through profit or loss, unless measured at amortized cost or at fair value through other comprehensive income.

**(iii) Offsetting of financial instruments**

Financial assets and liabilities are offset and the net amount presented in the balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously.

**(iv) Impairment of financial assets**

The Company evaluates at the balance sheet dates whether there is any objective evidence that determines whether the financial asset or group of financial assets is not recoverable. A financial asset or group of financial assets is considered to be non-recoverable if, and only if, there is objective evidence of non-recoverability as a result of one or more events that occurred after the initial recognition of the asset (a "loss event") and this loss event has an impact on the estimated future cash flow of the financial asset or the Company from financial assets that can be reasonably estimated. Evidence of impairment may include indicators that borrowing parties are experiencing a time of significant financial hardship. The likelihood that they will go into bankruptcy or other financial reorganization, default or late payment of interest or principal and when there are

indicators of a measurable fall in estimated future cash flow, such as changes in maturity or economic condition related to defaults.

**(v) Derecognition**

Derecognition of a financial asset occurs only when the contractual rights on the cash flow of the asset are realized or when the Company transfers the financial asset and substantially all its risks and returns to third parties. In transactions where such financial assets are transferred to third parties, but without the actual transfer of the respective risks and returns, the asset is not derecognized.

**(vi) Derivative financial instruments and hedge of net investment abroad**

In order to mitigate its exposure to exchange rates, the Company uses derivative financial instruments such as ZCC – zero cost collar and net investment hedges.

***Derivative financial instruments***

In order to mitigate its exposure to exchange rates in net revenue, the Company uses derivative financial instruments such as ZCC – zero cost collar and net investment hedges.

Adjustments (gain or losses) from derivative financial instruments are recognized at fair value thought profit and loss, and are recognized as financial results.

The derivative financial instrument fair value is classified as current assets or liabilities if the due date are less than 12 months.

***Hedge of net investment abroad***

The Company designates borrowings in foreign currency as hedging instruments against the foreign exchange variation risk arising from investments that the Company maintains abroad, resulting from the translation of those investments into the Company's financial statement presentation currency.

At the beginning of each transaction, the Company documents:

- the relationship between the hedging instruments and the hedged items;
- the risk management objectives;
- the hedge accounting strategy;
- the appraisal that the hedging instruments used in the transactions are highly effective in offsetting changes in the fair value of the hedged items.

The effective portion of gains or losses of a hedging instrument designated and qualified as hedge of net investment abroad is recognized in equity within the "Carrying value adjustments" account. The gain or loss relating to the ineffective portion is recognized immediately in the Company's finance result. Changes in the hedging amounts classified in "Carrying value adjustments" within equity are shown in Note 31.

Gains and losses accumulated in equity are included in the statement of income when the foreign operation is partially or fully disposed of or sold.

**e. Borrowings**

Borrowings are recognized initially at fair value, net of transaction costs incurred, and are subsequently carried at amortized cost. Any difference between the proceeds (net of transaction

costs) and the total amount payable is recognized in the statement of income over the life of the borrowings using the effective interest method. (Note 15)

**f. Financial liabilities**

They are classified, as initial recognition, as financial liabilities at fair value through profit or loss, loans and financing, accounts payable, or derivatives classified as hedging instrument, as applicable. The classification depends on the purpose of the financial liabilities were acquired.

**(i) Initial recognition and measurement**

Financial liabilities are initially measured at fair value, net of transaction costs and are subsequently measured at amortized cost using the effective interest method to calculate interest expenses. The effective interest method calculates the amortized cost of a liability and allocates interest expense during the relevant period. These are classified as balances of suppliers, loans and financing, related parties and notes payable and others.

**(ii) Derecognition**

A financial liability is written off when the obligation is revoked, canceled or expired. When an existing financial liability is replaced by another of the same lender with substantially different terms, or the terms of an existing liability are significantly changed, such replacement or modification is treated as write-off of the original liability and recognition of a new liability, the difference between those accounting values are recognized in the statement of income.

On December 31, 2018, the Company assessed the aspects of the standard and did not identify significant impacts on the recognition of revenues in its financial statements.

**g. Employee benefits**

The Company has defined benefit plans for Mexicans employees, which are funded through payments to funds, determined by periodic actuarial calculations. The Company also has a defined contribution plan for its operations in Brazil.

The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the balance sheet date minus the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using market interest rates that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. Past-service costs are recognized immediately in the statement of income.

For defined contribution plans, in Brasil, the Company pays contributions to privately administered pension insurance plans on a contractual or voluntary basis. The Company has no further payment obligations once the contributions have been paid. The contributions are recognized as employee benefit expense when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

**h. Advances from customers**

This account refers to advances of funds to build the tools that will be used in the production process. Advances from customers are recorded at the contractual amounts and adjusted for foreign exchange differences when applicable, and settled upon the billing of the object of the transaction; the resulting revenue is recorded when the construction of tools is concluded and approved by the customer.

**i. Share-based payments**

The Company offers a share-based remuneration plan to its management. The variable portion of management remuneration is settled through the issuance of equity instruments. The fair value of the services received in exchange for the grant of the options is recognized as an expense. The total amount to be expensed is determined with reference to the fair value of the options granted.

The total expense is recognized over the vesting period, which is the period over which all of the specified vesting conditions are to be satisfied.

**j. General provisions**

Provisions are recognized when the Company has a present obligation (legal or non-formalized) as a consequence of a past event, it is probable that economic benefits are required to settle the obligation and a reliable estimate of the value of the obligation can be made. When the Company expects the value of a provision to be totally paid or in part, for example, under an insurance contract, the reimbursement is recognized as a separate asset, but only when the reimbursement is practically certain.

The expense related to any provision is presented in the statement of income, net of any reimbursement.

**k. Revenues**

The adoption of IFRS 15 had no impact considering the time of revenue recognition from customer contracts, as well as their measurement, presentation and disclosure in the financial statements. The impacts are related to the review of internal documents and the creation and / or change of internal controls, with the purpose of ensuring that new contracts with clients are properly evaluated and accounted for in accordance with the standard.

Revenues are presented net of taxes and discounts. Taxes on sales are recognized when sales are billed and discounts are recognized when granted. Revenue from sales of goods is recognized when the sales amount can be measured reliably, the Company no longer controls the goods sold or has any other responsibility related to the ownership of the goods and costs incurred or to be incurred in respect of the transaction can be measured reliably, it is probable that the economic benefits associated with the transaction will flow to the Company, and the Company has transferred to the buyer all the risks and rewards of ownership of the good.

**l. Indirect Taxes**

Revenues are recognized net of taxes. Likewise, purchases of goods, services, assets and expenses are also recognized net of taxes, except in situations where, in acquisitions, taxes are not liable to credit, in which case such taxes are recognized as a party of the cost of purchasing the goods, service, assets and expenses, as the case may be.

The amount of taxes levied on sales and purchases are included as a component of the amounts receivable or payable in the Company's balance sheet.

The value of taxes, after being determined, (as opposed to credits for acquisitions and debits for sales), will present a recoverable or payable balance, and are presented, respectively, as assets or liabilities, in the balance sheet.

Sales revenues from operations are subject to the following taxes and contributions at the following basic rates:

| Taxes  |                                       | Percent (%) |
|--------|---------------------------------------|-------------|
| PIS    | Social integration program            | 1.65        |
| COFINS | Social contribution on Revenues       | 7.60        |
| ICMS   | Value added tax on sales and services | 0 to 17     |
| ISS    | Tax over services                     | 5.00        |
| IPI    | Excise tax                            | 0 to 15     |
| IVA    | Value-added tax                       | 16.00       |

These charges are deducted from net income in the statement of income. The credits arising from non-cumulative PIS / COFINS are deducted from the cost of services rendered in the income statement.

#### **m. Information by segment**

For management purposes, the Company is divided into business units, based on the products, considering two operating segments subject to the disclosure of information:

- Transportation, infrastructure & agriculture
- Hydraulic

Management monitors the operational results of the business units separately, in order to be able to make decisions on resource allocation and to evaluate performance. Segment performance is assessed based on EBITDA in conjunction with operating profit or loss, which in some cases is measured differently from operating income or loss in the consolidated financial statements. The Company's financing (including income and expenses from financing) and taxes on profits are managed within the Company, and are not allocated to operating segments.

Financial income and financial costs, as well as gains and losses at fair value over financial assets, are not allocated to individual segments, since the underlying instruments are managed consolidated.

Current taxes, deferred taxes and certain financial assets and liabilities are not allocated to these segments, since they are also managed consolidated.

Capital expenditures consist of additions of property, plant and equipment, intangible assets and investment property, including assets arising from the acquisition of subsidiaries.

## **2.6 New standards, amendments and interpretations of standards issued by the IASB and CPC**

The changes in the existing standards listed below have been published and will be mandatory for subsequent accounting periods and the Company will adopt them at the effective date required.

**a. IFRS 6 - Leases**

As of January 1, 2019, the Standard will replace the previous lease standard, IAS 17 / CPC 06 (R1), and related interpretations. The CPC 06 establishes the principles for recognition, measurement, presentation and disclosure of leases which tenants will be required to recognize, in the beginning of a contract, a lease liability reflecting future lease payments and a "right to use an asset", during the time of use, for virtually all lease agreements, with the exception of certain short-term leases and low value asset leases. For landlords, the accounting treatment remains practically the same, with the classification of leases as operating leases or financial leases, and accounting for these two types of lease differently. Tenants should also recognize separately the interest expense and the depreciation expense of the right to use an asset.

The Company will adopt CPC 06 (R2) prospectively, choosing to use the exemptions proposed by the standard for lease agreements whose term expires in 12 months from the date of initial adoption, and lease agreements whose underlying assets are of low value.

During 2018, the Company evaluated the impacts of CPC 06 (R2). And the impacts expected in the adoption as follow:

|                             | Parent company | Consolidated  |
|-----------------------------|----------------|---------------|
| <b>Assets</b>               |                |               |
| Right to use                | 11,074         | 24,347        |
| <b>AT DECEMBER 31, 2018</b> | <b>11,074</b>  | <b>24,347</b> |
| <b>Liabilities</b>          |                |               |
| Lease liability             | 11,074         | 24,347        |
| <b>AT DECEMBER 31, 2018</b> | <b>11,074</b>  | <b>24,347</b> |

**b. IFRIC 23 - Uncertainty over income tax treatments**

The Interpretation (equivalent to ICPC 22) clarifies the accounting of income taxes in cases where tax treatments involve uncertainty that affects the application of IAS 12 (CPC 32 - Taxes on income) and impacted systems does not apply to taxes outside the scope of IAS 12 nor specifically includes the requirements relating to interest and fines associated with uncertain tax treatment.

Uncertain tax treatment is any accounting or tax procedure, adopted by the Company in the calculation of taxes on profit that if questioned by the tax authorities, may suffer changes in value.

In this circumstance, the company must measure and recognize current and deferred income and social contribution taxes, which refers to the amount that can be questioned by the tax authorities.

The Company considers that the application of this interpretation will not have an impact on the financial position and results.

There are no other standards, changes in standards and interpretations that are not yet in force, and that the Company expects to have a material impact on its financial statements.

**3. CASH AND CASH EQUIVALENTS**

|                                 | Parent company |                | Consolidated   |                |
|---------------------------------|----------------|----------------|----------------|----------------|
|                                 | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| Cash and banks                  | 2,412          | 5,791          | 2,455          | 6,138          |
| Financial investments in Brazil | 282,533        | 637,502        | 282,751        | 637,502        |
| Financial investments abroad    | 43,405         | 24,534         | 428,527        | 221,728        |
|                                 | <b>328,350</b> | <b>667,827</b> | <b>713,733</b> | <b>865,368</b> |

The financial investments disclosed as cash and cash equivalents are highly-liquid securities with an immaterial risk of changes in value. Those investments in Brazil are remunerated based on variation of Interbank Deposit Certificate (CDI) rate, with an average rate equivalent to 6.48% per annum (10.20% in December 31, 2017). The investments abroad are denominated mostly in U.S. Dollars (US\$) at the average rate of 1.62 % per annum (1.17% per annum in December 31, 2017) designed as time deposit and overnight.

The reduction occurred in the period is mainly due to the settlement of loan and financing contracts classified in the short term. (note 15)

The Company operates with first line banks as detailed in note 32.1.

#### 4. TRADE ACCOUNT RECEIVABLES

The composition of trade account receivables from client by market is as follows:

|                                               | Parent company |                | Consolidated   |                |
|-----------------------------------------------|----------------|----------------|----------------|----------------|
|                                               | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| Domestic market                               | 99,015         | 89,596         | 99,015         | 89,596         |
| Foreign market                                | 230,324        | 191,010        | 591,421        | 485,856        |
| Provision for impairment of trade receivables | (296)          | (393)          | (1,941)        | (2,359)        |
|                                               | <b>329,043</b> | <b>280,213</b> | <b>688,495</b> | <b>573,093</b> |
|                                               |                |                |                |                |
|                                               | Parent company |                | Consolidated   |                |
|                                               | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| Falling due in up to 30 days                  | 151,664        | 110,765        | 386,231        | 295,935        |
| Falling due within 31 to 60 days              | 93,397         | 72,313         | 159,461        | 174,621        |
| Falling due in more than 61 days              | 64,896         | 77,293         | 35,751         | 45,550         |
| <b>Total falling due</b>                      | <b>309,957</b> | <b>260,371</b> | <b>581,443</b> | <b>516,106</b> |
| Overdue for up to 30 days                     | 4,660          | 9,104          | 79,286         | 39,632         |
| Overdue for 31 to 60 days                     | 1,949          | 1,772          | 16,960         | 3,762          |
| Overdue for more than 61 days                 | 12,773         | 9,359          | 12,747         | 15,952         |
| <b>Total overdue</b>                          | <b>19,382</b>  | <b>20,235</b>  | <b>108,993</b> | <b>59,346</b>  |
| Provision for impairment of trade receivables | (296)          | (393)          | (1,941)        | (2,359)        |
| <b>Total</b>                                  | <b>329,043</b> | <b>280,213</b> | <b>688,495</b> | <b>573,093</b> |

Trade receivable in the domestic market are denominated in Brazilian Real and in the foreign market primarily in U.S. dollars.

The variation in trade account receivable is mainly due to the devaluation of the Real in relation to the U.S. dollar which was 3.3080 in December 31, 2017 and achieve 3.8748 in December 31, 2018. In addition, there were commercial renegotiations with lengthening of term.

The Company's trade receivable in the foreign market include related-party amounts which are eliminated upon consolidation, amounting of R\$118,980 (R\$77,213 in December 31, 2017). (Note 9)

The Company performs quantitative and qualitative analyses of its portfolio of trade receivables in order to determine the provision for probable losses with receivables, which changed as follows:

|                        | Parent company |              | Consolidated   |                |
|------------------------|----------------|--------------|----------------|----------------|
|                        | Dec/18         | Dec/17       | Dec/18         | Dec/17         |
| <b>Opening balance</b> | <b>(393)</b>   | <b>(95)</b>  | <b>(2,359)</b> | <b>(1,491)</b> |
| Additions              | (561)          | (754)        | (663)          | (5,802)        |
| Reversals              | 521            | 298          | 748            | 4,197          |
| Write-offs (*)         | 137            | 158          | 333            | 737            |
| <b>Closing balance</b> | <b>(296)</b>   | <b>(393)</b> | <b>(1,941)</b> | <b>(2,359)</b> |

(\*) Receivables written off during the year as uncollectible

## 5. INVENTORIES

|                                 | Parent company |                | Consolidated   |                |
|---------------------------------|----------------|----------------|----------------|----------------|
|                                 | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| Finished products               | 74,713         | 79,390         | 167,520        | 152,241        |
| Work in progress                | 63,929         | 59,937         | 127,034        | 105,354        |
| Raw materials                   | 73,519         | 54,444         | 173,888        | 118,890        |
| Maintenance and other materials | 31,744         | 37,755         | 76,566         | 67,870         |
| Provision for losses            | (9,717)        | (14,917)       | (21,385)       | (24,863)       |
|                                 | <b>234,188</b> | <b>216,609</b> | <b>523,623</b> | <b>419,492</b> |

In December 31, 2018 the Company offered finished product inventory as collateral for labor and social security litigation amounting to R\$5,514 (R\$5,541 in December 31, 2017) in the Parent company and consolidated.

The changes in the provision for losses during the year were as follows:

|                        | Parent company  |                 | Consolidated    |                 |
|------------------------|-----------------|-----------------|-----------------|-----------------|
|                        | Dec/18          | Dec/17          | Dec/18          | Dec/17          |
| <b>Opening balance</b> | <b>(14,917)</b> | <b>(7,179)</b>  | <b>(24,863)</b> | <b>(15,905)</b> |
| Additions              | 1,594           | (8,954)         | (128)           | (10,174)        |
| Write-off as loss      | 3,606           | 1,216           | 3,606           | 1,216           |
| <b>Closing balance</b> | <b>(9,717)</b>  | <b>(14,917)</b> | <b>(21,385)</b> | <b>(24,863)</b> |

## 6. INCOME TAX AND SOCIAL CONTRIBUTION RECOVERABLE

The Company pays these taxes monthly based on estimated taxable income and according to the annual tax returns for some years, the Company overpaid them. These amounts will be used to offset federal tax from Company or third party (withholding tax). Based on the Company's projections, they will be realized during the next ten years.

|                       | Dec/18        |                |                | Dec/17       |                |                |
|-----------------------|---------------|----------------|----------------|--------------|----------------|----------------|
|                       | Current       | Non-current    | Total          | Current      | Non-current    | Total          |
| <b>Parent Company</b> | <b>49,919</b> | <b>166,857</b> | <b>216,776</b> | -            | <b>260,547</b> | <b>260,547</b> |
| Income tax            | 49,919        | 112,611        | 162,530        | -            | 204,585        | 204,585        |
| Social contribution   | -             | 54,246         | 54,246         | -            | 55,962         | 55,962         |
| <b>Subsidiaries</b>   | <b>11,615</b> | -              | <b>11,615</b>  | <b>7,943</b> | -              | <b>7,943</b>   |
| Income tax            | 11,615        | -              | 11,615         | 7,943        | -              | 7,943          |
| <b>Consolidated</b>   | <b>61,534</b> | <b>166,857</b> | <b>228,391</b> | <b>7,943</b> | <b>260,547</b> | <b>268,490</b> |

## 7. OTHER TAXES RECOVERABLE

|                                   | Dec/18         |                |                | Dec/17         |                |                |
|-----------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                   | Current        | Non-current    | Total          | Current        | Non-current    | Total          |
| <b>Parent company</b>             | <b>86,081</b>  | <b>157,979</b> | <b>244,060</b> | <b>55,364</b>  | <b>167,516</b> | <b>222,880</b> |
| 1988/1990 IPI premium credit      | -              | -              | -              | -              | 30,940         | 30,940         |
| ICMS recoverable - São Paulo      | 7,037          | 26,166         | 33,203         | 631            | 37,707         | 38,338         |
| ICMS recoverable - Santa Catarina | 20,806         | 40,610         | 61,416         | 22,776         | 59,950         | 82,726         |
| Reintegra benefit                 | 13,458         | -              | 13,458         | 8,333          | -              | 8,333          |
| COFINS, PIS and IPI recoverable   | 44,780         | 91,203         | 135,983        | 23,624         | 38,919         | 62,543         |
| <b>Subsidiaries</b>               | <b>51,899</b>  | -              | <b>51,899</b>  | <b>64,122</b>  | -              | <b>64,122</b>  |
| Value-added tax (VAT)             | 51,899         | -              | 51,899         | 64,122         | -              | 64,122         |
| <b>Consolidated</b>               | <b>137,980</b> | <b>157,979</b> | <b>295,959</b> | <b>119,486</b> | <b>167,516</b> | <b>287,002</b> |

The mentioned credits originate as follows:

**a. IPI premium credit - exports from June 1988 to October 1990**

This credit relates to a tax benefit arising from the exports carried out by the Company from 1988 to 1990. The right to use such credit was recognized by final and unappealable court decision in 2009. In 2012, the Company filed a request for enforcement of the decision. The realization of the expert evidence was approved and, as of this moment, is pending a conclusion.

In 2014, an accounting expert appointed by the Federal Court, found that the aforementioned credit corresponds to an amount sufficient to support the aforementioned asset of the Company. In a statement issued in the same year, the Federal Revenue Service of Brazil concluded that it had not found any element that would alter the results indicated by the accounting report.

Despite the value reiterated by the expert, Tupy kept a record of R\$30,940 in assets (value includes adjustment to present value - AVP), considering that the beginning of realization of the asset would occur since year 2021. Such expectation (2021) was established based on the status of the process and the average duration of processes that processed in the TRF of the 1st Region.

However, the procedural changes that were expected for 2018, the main one being the determination by a justice sentence of the amount owed by the Union to the Company, did not evolve as expected.

Such movements were considered strategic and would allow to maintain estimates of realization of the asset or to update them, as a result of advance.

Considering the current scenario and the absence of the relevant procedural acts expected for 2018, the Company reviewed its estimates regarding the terms of realization of the right and adjusted the assumptions applied for the calculation of the present value adjustment (AVP). And complementing it in an amount equivalent to the total value of the credit. (note 23)

The Company will continue with the legal process. So that new disclosures, valuations and revisions of the estimated realization period are reflected when new material facts occur.

**b. Value-added Tax on Sales and Services (ICMS) recoverable in São Paulo and in Santa Catarina**

Credits arising from the purchase of raw materials used in the process of constructing and purchasing property, plant and equipment assets, originally realizable in 48 installments, according to applicable state legislation. The decrease in the Company's sales in Brazilian market, observed in recent years as a result of the economic crisis, contributed to credit growth.

The Company was accomplishing your credit balance by transfers to third parties. However, according by a State Decree 1,860 / 2018 (effective as of December 2018), the possibility of extraordinary transfers of ICMS credits among taxpayers was revoked. Ordinary format of approval, where the amounts for transfer will be calculated through the SEFAZ system, with automatic distribution among exporting taxpayers (unimpressive when compared to extraordinary ones).

The Company prepared long-term projections showing sales recovery to the Brazilian market and consequent decrease in the accumulation of credits, which, together with transfers to third parties, the Company estimates that the credits will be realized in up to 10 years. However, still insufficient to neutralize the total growth of the credit balance in the state of Santa Catarina.

Actions in order to accomplishing the credit balance are in progress, the Company is negotiating an agreement to minimize accumulation of credits and to maximize generation of debts. However, considering the uncertainties regarding the effective consumption of these credits and the significant

amount registered on 31 December 2018, the Company opted to recognize an impairment amounting of R\$45,567, related to the remaining balance that is difficult to achieve in the next 10 years. (note 23)

**c. Special System for Refund of Tax Amounts to Exporting Companies (Reintegra) benefit**

Credits arising from the benefit established by Provisional Measure 540 of August 2, 2011, reestablished by Law 13,043/14 and regulated by Decree 8,304/14.

At the end of May 2018, the federal government issued Decree 9,393/2018, changing the Reintegra rate from 2% to 0.1%. This alteration considerably reduced the credits coming from Reintegra.

In December 2018, the Company filed a writ of mandamus in mid-2015. At that time, Decree 8.415 / 2015 reduced the Reintegra rate from 3% to 1%, not respecting the 90 days between the change in the rule and its effective application.

With the favorable decision in the process, the Company recognized the amount of R\$11,915 as credits from Reintegra, which will be used in fiscal year 2019 to offset federal taxes. The amount of R\$8,582 was recorded in other operating revenues (note 23) and the updating of this credit as a financial result.

**d. Social Contribution on Revenues (COFINS), Social Integration Program (PIS) and Excise Tax (IPI) recoverable**

These are credits generated on the acquisition of inputs used in the production process net of taxes levied on the sale of products in domestic market.

IN 2018 the Company registered the amounting of R\$61,569 from extemporaneous credits corresponding to the period from 2013 to 2017.

COFINS and PIS credits can be offset other federal taxes, and, since 2019 to used offset with social security contributions are allowed. Those credits also may be subject to monetary reimbursement, in proportion to foreign sales over net revenue. The Company estimates to realize such credits up to 5 years.

**e. Value-added tax (VAT)**

These are credits generated on the acquisition of inputs used in the production process of the subsidiaries in Mexico and are regularly reimbursed by the local tax authorities. The increase of registered amount in December 31, 2018 over December 31, 2017 is a cause of the extension in the payment period required of Mexican authorities in order to cashback the Company, which usually occurred with three months and now is taking around seven months.

**8. DEFERRED INCOME TAX AND SOCIAL CONTRIBUTION, NET**

The composition of deferred tax assets and liabilities relating to income tax and social contribution, presented in the balance sheet accounts, is as follows:

|                                                            | Parent company |                | Consolidated   |                |
|------------------------------------------------------------|----------------|----------------|----------------|----------------|
|                                                            | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| <b>Deferred assets</b>                                     |                |                |                |                |
| Income tax and social contribution losses                  | 45,822         | 48,080         | 45,822         | 52,433         |
| Provisions for contingencies                               | 68,143         | 62,838         | 68,143         | 62,838         |
| Taxes and contribution recoverable                         | 53,910         | 26,733         | 53,910         | 26,733         |
| Credits – Eletrobrás                                       | 27,030         | 6,653          | 27,030         | 6,653          |
| Property, plant and equipment - impairment                 | 28,818         | 28,818         | 28,818         | 28,818         |
| Salaries, social security charges and profit sharing       | 15,492         | 13,761         | 34,500         | 32,929         |
| Provision for impairment of trade receivables              | 7,233          | 2,863          | 7,233          | 2,863          |
| Provision for inventory losses                             | 4,334          | 5,072          | 4,334          | 5,072          |
| Share-based payments                                       | 2,911          | -              | 2,911          | -              |
| Tools                                                      | -              | -              | 16,840         | 5,855          |
| Other items                                                | 12,407         | 16,732         | 20,571         | 23,800         |
| Unrealized profits in subsidiaries                         | -              | -              | 4,313          | 3,445          |
| <b>Subtotal</b>                                            | <b>266,100</b> | <b>211,550</b> | <b>314,425</b> | <b>251,439</b> |
| <b>Deferred liabilities</b>                                |                |                |                |                |
| Depreciation rate differences                              | 74,106         | 71,059         | 74,106         | 71,059         |
| Property, plant and equipment - carrying value adjustments | 21,542         | 26,513         | 21,542         | 26,513         |
| Deferred tax on intangible assets                          | -              | -              | 61,760         | 57,346         |
| Property, plant and equipment - tax base (México)*         | -              | -              | 13,349         | 20,278         |
| <b>Subtotal</b>                                            | <b>95,648</b>  | <b>97,572</b>  | <b>170,757</b> | <b>175,196</b> |
| <b>Total deferred liabilities, net</b>                     | <b>170,452</b> | <b>113,978</b> | <b>143,668</b> | <b>76,243</b>  |

The Mexican tax legislation allows the depreciation of property, plant and equipment on a tax bases, and the Company accordingly records the temporary difference of the depreciation between the tax and the accounting bases. The tax amount of temporary difference at December 31, 2018 was R\$13,349 (R\$20,384 at December 31, 2017). The change in the year is due to the foreign exchange difference between the currency in which the taxes are charged in Mexico (Mexican pesos) and the functional currency (US Dollar) of the subsidiaries in Mexico.

The subsidiary Sociedade Técnica de Fundições Gerais S.A. - Sofunge (in liquidation) had income tax losses of R\$5,930 at December 31, 2018 (R\$6,017 at December 31, 2017) and social contribution losses of R\$42,497 at December 31, 2018 (R\$ 42,588 at December 31, 2017). The credits, are not recorded and the management are looking for options of realization of the remaining balance.

The Company estimates that the balance as at December 31, 2018, relating to deferred tax assets, will be recovered through future income tax. Expected future realization, based on the Company's profit projections and the expectation of effective realization of temporary differences, is as follows

| Years      | Parent company |                | Consolidated   |                |
|------------|----------------|----------------|----------------|----------------|
|            | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| 2018       | -              | 41,211         | -              | 63,716         |
| 2019       | 61,030         | 40,231         | 81,705         | 38,691         |
| 2020       | 107,918        | 33,592         | 108,094        | 32,052         |
| 2021       | 20,482         | 35,420         | 20,755         | 33,880         |
| 2022       | 15,982         | 16,869         | 16,799         | 15,329         |
| Thereafter | 60,688         | 44,227         | 87,072         | 67,771         |
|            | <b>266,100</b> | <b>211,550</b> | <b>314,425</b> | <b>251,439</b> |

During the year ended December 31, 2018, changes in deferred tax assets and liabilities were as follows:

|                                                            | Parent company |                | Consolidated   |               |
|------------------------------------------------------------|----------------|----------------|----------------|---------------|
|                                                            | Dec/18         | Dec/17         | Dec/18         | Dec/17        |
| <b>Opening balance</b>                                     | <b>113,978</b> | <b>101,399</b> | <b>76,243</b>  | <b>44,353</b> |
| <b>Recognized in profit (loss)</b>                         |                |                |                |               |
| Recognized in profit (loss) for the year                   | (11,227)       | 13,140         | (127)          | 35,384        |
| Recognized in comprehensive income for the year            | 67,255         | 4,388          | 67,255         | 4,388         |
| Effects of currency translation into presentation currency | -              | -              | (149)          | (2,933)       |
| <b>Recognized in assets</b>                                |                |                |                |               |
| Transfer to income tax and social contribution recoverable | 1,334          | -              | 1,334          | -             |
| Compensations with other taxes                             | (888)          | (4,949)        | (888)          | (4,949)       |
| <b>Closing balance</b>                                     | <b>170,452</b> | <b>113,978</b> | <b>143,668</b> | <b>76,243</b> |

## 9. RELATED-PARTY TRANSACTIONS

The main transactions of the Company with related parties are summarized as follows:

### a. Subsidiaries:

| <b>Assets</b>                                                         | <b>Dec/18</b>    | <b>Dec/17</b>    |
|-----------------------------------------------------------------------|------------------|------------------|
| <b>Trade account receivables</b>                                      | <b>118,980</b>   | <b>77,213</b>    |
| Tupy American Foundry Corporation                                     | 39,012           | 49,899           |
| Tupy Mexico Saltillo, S.A. de C.V                                     | 13,963           | 10,121           |
| Tupy Europe GmbH                                                      | 60,939           | 16,732           |
| Technocast, S.A. de C.V.                                              | 5,066            | 461              |
| <b>Related parties – loans</b>                                        | <b>5,982</b>     | <b>5,540</b>     |
| Tupy Agroenergética Ltda.                                             | 5,982            | 5,540            |
|                                                                       | <b>124,962</b>   | <b>82,753</b>    |
| <b>Liabilities</b>                                                    | <b>Dec/18</b>    | <b>Dec/17</b>    |
| <b>Loans and financing</b>                                            | <b>1,395,346</b> | <b>1,191,238</b> |
| Tupy Overseas S.A                                                     | 1,395,346        | 1,191,238        |
| <b>Advances from customers</b>                                        | <b>3,468</b>     | <b>3,489</b>     |
| Tupy American Iron & Alloys Corporation                               | 3,468            | 2,961            |
| Tupy American Foundry Corporation                                     | -                | 528              |
| <b>Notes and other payables</b>                                       | <b>101,641</b>   | <b>89,435</b>    |
| Tupy Europe GmbH                                                      | 70,876           | 63,345           |
| Tupy American Foundry Co.                                             | 29,283           | 24,854           |
| Tupy American Iron & Alloys Corporation                               | 1,448            | 1,236            |
| Tupy México Saltillo S.A. de CV                                       | 34               | -                |
| <b>Related parties – loans</b>                                        | <b>1,239</b>     | <b>998</b>       |
| Sociedade Técnica de Fundições Gerais S.A. - Sofunge "in liquidation" | 1,239            | 998              |
|                                                                       | <b>1,501,694</b> | <b>1,285,160</b> |

| Statement of income                                                      | Dec/18          | Dec/17          |
|--------------------------------------------------------------------------|-----------------|-----------------|
| <b>Revenues</b>                                                          | <b>912,236</b>  | <b>740,595</b>  |
| Tupy American Foundry Corporation                                        | 668,826         | 591,477         |
| Tupy Europe GmbH                                                         | 205,005         | 99,531          |
| Tupy Mexico Saltillo, S.A. de C.V                                        | 38,405          | 49,588          |
| <b>Other operating expenses, net</b>                                     | <b>11,985</b>   | <b>6,681</b>    |
| Technocast, S.A. de C.V.                                                 | 6,350           | 5,749           |
| Tupy Mexico Saltillo, S.A. de C.V                                        | 5,635           | 932             |
| <b>Finance costs</b>                                                     | <b>(87,911)</b> | <b>(76,610)</b> |
| Tupy Overseas S.A.                                                       | (87,912)        | (76,634)        |
| Sociedade Técnica de Fundições<br>Gerais S.A. - Sofunge "in liquidation" | 1               | (6)             |
| Tupy Agroenergética Ltda.                                                | -               | 30              |
|                                                                          | <b>836,310</b>  | <b>670,666</b>  |

Information from operations of the subsidiaries is provided in Note 2.2. The receivables (Note 4) and sales revenue of the Company with its subsidiaries mainly represent sales of products from the transportation, infrastructure & agriculture segment. Prices charged are in compliance with the Company's price lists, and terms range from 60 to 90 days, as established by the parties. At December 31, 2018, the Company's related parties had no overdue receivables, because of deb loss, and, therefore, the Company did not record a provision for the impairment of these receivables.

Advances from customers correspond to amounts sent by the subsidiaries abroad for the future delivery of goods.

Notes and other payables to subsidiaries abroad represent a current accounts between the subsidiaries and the Parent company, with an unspecified maturity.

The loan conditions granted by Tupy Overseas S.A. to the Parent company are disclosed in Note 15.

The other operations refer to loan agreements between the subsidiaries in Brazil and the Company, with no defined maturities, which bear interest equivalent to the Referential Rate (TR).

Other operations expenses, net, refer to transfer by sale of fixed assets of the machining line to Technocast S.A. de C.V. and Tupy México Saltillo, S.A. de C.V. subsidiaries.

#### b. Main stockholders:

The Company's main stockholders are BNDES Participações S.A. – BNDESPAR and PREVI - Caixa de Previdência dos Funcionários do Banco do Brasil.

In October of 2018 the Parent company settled the contract (expansion project of Tupy S.A.) with BNDES (the controlling shareholder of BNDES Participações S.A. – BNDESPAR), R\$20,922 in December 31, 2017. (note 15)

#### c. Management remuneration:

|                             | Board of Directors |              | Board of Officers |              | Total         |               |
|-----------------------------|--------------------|--------------|-------------------|--------------|---------------|---------------|
|                             | Dec/18             | Dec/17       | Dec/18            | Dec/17       | Dec/18        | Dec/17        |
| Fixed remuneration          | 2,181              | 2,089        | 2,845             | 3,628        | 5,026         | 5,717         |
| Variable remuneration       | -                  | -            | 3,003             | 2,403        | 3,003         | 2,403         |
| Stock option plan (Note 19) | 763                | 1,085        | 1,993             | 2,419        | 2,756         | 3,504         |
|                             | <b>2,944</b>       | <b>3,174</b> | <b>7,841</b>      | <b>8,450</b> | <b>10,785</b> | <b>11,624</b> |

The overall amount of the annual remuneration for the current year approved for the Board of Directors, the Executive Board and the Statutory Audit Board at the Extraordinary and Ordinary General Meeting for the year ended December 31, 2018 was R\$21,684 (R\$19,373 in December 31, 2017).

Statutory management remuneration is paid only at the Parent Company level and, therefore, no management remuneration has been recorded in subsidiaries.

The amounts recorded as variable remuneration of the Executive Board are considered as a provision, based on to the goals established for the year. Information about the Stock option plan is provided in Note 19.

Officers receive additional corporate benefits, such as company vehicles, reimbursement of vehicle-related expenses, health insurance, pension plan and severance pay. At December 31, 2018, these benefits totaled R\$2,234 (R\$1,101 in the same previous-year period).

The Company does not offer its officers a post-employment benefit plan.

**d. Other related parties:**

The Parent company sponsors the Associação Atlética Tupy (Tupy Athletic Association), a not-for-profit foundation that offers leisure activities and sports to the Company's employees. During the year ended December 31, 2018, the Company recognized sponsorship expenses of R\$1,232 (R\$1,231 at December 31, 2017).

**10. CREDITS - ELETROBRAS**

Refer to credits arising from the right to additional inflation adjustment of the Eletrobras compulsory loan and related interest, based on a final and unappealable court decision in 2003.

In December 2011, the Federal Regional Court of the 4th Region ("TRF4") confirmed the calculation made by the Company, based on a report signed by a professional expert, regarding the enforcement of the sentence. The Company and Eletrobras lodged appeals with the Superior Court of Justice ("STJ") and the Federal Supreme Court ("STF").

In October 2015, considering the pending proceedings (STJ/STF) does not suspending the proceeding progress. The Company filed petition, requiring compliance with the verdict, meaning that Eletrobras is summoned to deposit the executed value with the court or submitted a defense about the amount calculated by the Company.

In September 2016, the 6th Civil Court in Joinville retained monies, on Eletrobras checking accounts (online seizure), in the full amount claimed by the Company in the respective lawsuit. Until the court final decision is published, such amount will remain retained, by the judicial authority, in order to guarantee the Company's credit.

Since the initial recognition of the assets in 2003, there are just pro Company effects in the Court, including (a) a receive of a small part in 2008 for Eletrobras, (b) the Company has the right of receive this amount (TRF4 decision at December 2011), (c) the blocking of the total amount of the Company's right, in September 2016; and (d) a appealed by Eletrobras already judged to the STF, through which it was still sought to contest the calculation criteria.

In October 2018, an appeal filed by Eletrobras was judged considering the decision of the TRF4 of December 2011 (above mentioned), which closing of the legal proceedings for which Eletrobras could still discuss the criteria for calculating the appraisal report approved in court.

In regarding of the procedural acts listed above, in the last quarter of 2018, in addition to the right to full monetary restatement (which was already subject to final judge in 2003), the criteria for calculating the credit held by the Company were definitively established. Accordingly, based on a decision made in October 2018, the Company updated and recorded the full entitlement of the compulsory deposit credits, according to criteria and assumptions determined in an irrevocable judicial decision. In addition, an embedded derivative was identified from the option of realizing credit, partial or total, in cash or in shares of Eletrobras, which was valued at its realization value on the balance sheet date by the black-sholes criterion reflecting the lowest and highest probable realization value in favor of the Company.

**Consolidated**

|                                                   | Credits        | Realizable value adjustment | Net realizable value |
|---------------------------------------------------|----------------|-----------------------------|----------------------|
| <b>AT DECEMBER 31, 2016</b>                       | <b>117,621</b> | <b>(18,294)</b>             | <b>99,327</b>        |
| Monetary adjustment                               | 4,116          | -                           | 4,116                |
| Provision for losses                              | -              | (1,273)                     | (1,273)              |
| <b>AT DECEMBER 31, 2017</b>                       | <b>121,737</b> | <b>(19,567)</b>             | <b>102,170</b>       |
| Monetary adjustment (nota 23)                     | 128,736        | -                           | 128,736              |
| Registration of the embedded derivative (note 23) | -              | (104,862)                   | (104,862)            |
| Change in fair value of derivative (Note 22)      | -              | 44,930                      | 44,930               |
| <b>AT DECEMBER 31, 2018</b>                       | <b>250,473</b> | <b>(79,499)</b>             | <b>170,974</b>       |

The Company estimates that the credit will be effectively received in a period between 12 to 24 months.

**11. PROPERTIES FOR INVESTMENT**

The Company has assets classified as properties for investment, mainly land and forests, belonging to the subsidiary Tupy Agroenergética Ltda. At December 31, 2018, their carrying value was R\$6,363 (R\$6,544 in 2017), considering the historical cost as the accounting basis. The expected possible result, according an appraisal by a specialized company, in the realization of these assets indicate a range between R\$49.923 (minimum) and R\$91.524 (expected).

Part of these properties were reclassified to current assets since they are the object of a partnership for the development of allotment (note 33).

**12. INVESTMENTS****a. Composition of investments**

| Parent company                                                       | Total assets | Equity  | Goodwill | Profit (loss) for the period | Interest in capital (%) | Share in the results of subsidiaries (*) | Book value (*)   |
|----------------------------------------------------------------------|--------------|---------|----------|------------------------------|-------------------------|------------------------------------------|------------------|
| <b>AT DECEMBER 31, 2018</b>                                          |              |         |          |                              |                         |                                          |                  |
| <b>Investment in subsidiary company</b>                              |              |         |          |                              |                         |                                          |                  |
| Tupy Mexico Saltillo, S.A. de C.V.                                   | 1,416,806    | 879,034 | 30,513   | 93,322                       | 100,00                  | 94,290                                   | 909,191          |
| Technocast, S.A. de C.V.                                             | 847,898      | 580,674 | 10,713   | 34,643                       | 100,00                  | 34,643                                   | 591,387          |
| Servicios Industriales Technocast, S.A. de C.V.                      | 10,035       | 8,131   | -        | (101)                        | 100,00                  | (101)                                    | 8,131            |
| Tupy Overseas                                                        | 1,406,540    | 17,002  | -        | 1,260                        | 100,00                  | 1,260                                    | 17,002           |
| Tupy American Foundry Co.                                            | 210,685      | 113,679 | -        | 5,307                        | 100,00                  | 8,809                                    | 110,344          |
| Tupy American Iron & Alloys Co.                                      | 5,299        | 5,299   | -        | (3)                          | 100,00                  | (3)                                      | 5,299            |
| Tupy Europe GmbH                                                     | 220,382      | 150,108 | -        | 13,548                       | 100,00                  | 16,053                                   | 145,435          |
| Tupy Agroenergética Ltda.                                            | 10,613       | 4,616   | -        | (369)                        | 100,00                  | (369)                                    | 4,616            |
| Sociedade Técnica de Fundições Gerais SA. - Sofunge "in liquidation" | 2,538        | 2,535   | -        | 239                          | 100,00                  | 239                                      | 2,535            |
|                                                                      |              |         |          |                              |                         | <b>154,821</b>                           | <b>1,793,940</b> |

(\*) Adjusted by unrealized profits

| Parent company                                                         | Total assets | Equity  | Goodwill | Profit (loss)<br>for the period | Interest in<br>capital (%) | Share in the<br>results of<br>subsidiaries (*) | Book value (*)   |
|------------------------------------------------------------------------|--------------|---------|----------|---------------------------------|----------------------------|------------------------------------------------|------------------|
| <b>AT DECEMBER 31, 2017</b>                                            |              |         |          |                                 |                            |                                                |                  |
| <b>Investment in subsidiary company</b>                                |              |         |          |                                 |                            |                                                |                  |
| Tupy Mexico Saltillo, S.A. de C.V.                                     | 1,027,862    | 666,401 | 30,513   | 64,277                          | 100,00                     | 64,087                                         | 696,190          |
| Technocast, S.A. de C.V.                                               | 674,913      | 492,778 | 10,713   | 53,302                          | 100,00                     | 53,302                                         | 503,491          |
| Servicios Industriales Technocast, S.A. de C.V.                        | 10,621       | 8,927   | -        | 1,026                           | 100,00                     | 1,026                                          | 8,927            |
| Tupy Overseas                                                          | 1,199,357    | 13,430  | -        | 1,111                           | 100,00                     | 1,111                                          | 13,430           |
| Tupy American Foundry Co.                                              | 192,084      | 91,977  | -        | 4,450                           | 100,00                     | 3,289                                          | 88,302           |
| Tupy American Iron & Alloys Co.                                        | 4,530        | 4,530   | -        | (66)                            | 100,00                     | (66)                                           | 4,530            |
| Tupy Europe GmbH                                                       | 145,527      | 121,927 | -        | 3,605                           | 100,00                     | 5,597                                          | 119,639          |
| Tupy Agroenergética Ltda.                                              | 10,697       | 4,985   | -        | (658)                           | 100,00                     | (658)                                          | 4,985            |
| Sociedade Técnica de Fundições<br>Gerais SA. - Sofunge "em liquidação" | 2,298        | 2,296   | -        | 2,848                           | 100,00                     | 2,848                                          | 2,296            |
|                                                                        |              |         |          |                                 |                            | <b>130,536</b>                                 | <b>1,441,790</b> |

(\*) Adjusted by unrealized profits

## b. Changes in investments

| Parent company                                  |                  |
|-------------------------------------------------|------------------|
| <b>AT DECEMBER 31, 2016</b>                     | <b>1,454,691</b> |
| Share in the results of subsidiaries            | 130,536          |
| Exchange variations of investees located abroad | 28,543           |
| Dividends Received                              | (171,980)        |
| <b>AT DECEMBER 31, 2017</b>                     | <b>1,441,790</b> |
| Share in the results of subsidiaries            | 154,821          |
| Exchange variations of investees located abroad | 237,715          |
| Dividends                                       | (40,386)         |
| <b>AT DECEMBER 31, 2018</b>                     | <b>1,793,940</b> |

## c. Dividends receive

In August of 2018, the Company received from its Mexican subsidiaries the amount of R\$40,386 (USD10,000) as dividend, of which USD4,900 refers to Tupy México Saltillo S.A. de C.V., USD3,000 to Technocast S.A. de C.V. and USD2,100 to Servicios Industriales Technocast, S.A. de C.V.

On April 17, 2017, the Company received from its Mexican subsidiaries the amount of R\$171,980 (USD55,000) as dividend, of which USD36,000 refers to Tupy México Saltillo S.A. de C.V. and USD19,000 to Technocast S.A. de C.V.

## d. Impairment

In December 31, 2018, was recognized a reversal impairment amounting of R\$33,631, R\$23,542 after legal appropriation of 30% (reversal impairment of R\$8,301, R\$5,811 after legal appropriation of 30% in December 31, 2017). (note 14)

### 13. PROPERTY, PLANT AND EQUIPMENT

#### a. Changes in property, plant and equipment

| Parent company                                   | Machinery, facilities and equipment | Buildings        | Land         | Vehicles        | Furniture, fittings and other | Construction in progress | Total              |
|--------------------------------------------------|-------------------------------------|------------------|--------------|-----------------|-------------------------------|--------------------------|--------------------|
| <b>Cost</b>                                      |                                     |                  |              |                 |                               |                          |                    |
| <b>AT DECEMBER 31, 2016</b>                      | <b>1,638,314</b>                    | <b>328,097</b>   | <b>8,956</b> | <b>25,267</b>   | <b>5,700</b>                  | <b>40,687</b>            | <b>2,047,021</b>   |
| Addition                                         | -                                   | -                | -            | -               | -                             | 44,006                   | 44,006             |
| Transfer to property, plant and equipment in use | 31,987                              | 14,725           | -            | 480             | 287                           | (51,200)                 | (3,721)            |
| Disposal                                         | (25,503)                            | (750)            | -            | (2,886)         | (59)                          | -                        | (29,198)           |
| <b>AT DECEMBER 31, 2017</b>                      | <b>1,644,798</b>                    | <b>342,072</b>   | <b>8,956</b> | <b>22,861</b>   | <b>5,928</b>                  | <b>33,493</b>            | <b>2,058,108</b>   |
| Addition                                         | 3,596                               | -                | -            | -               | -                             | 60,374                   | 63,970             |
| Transfer to property, plant and equipment in use | 50,109                              | 4,968            | -            | 1,672           | 408                           | (57,157)                 | -                  |
| Disposal                                         | (85,513)                            | (90)             | -            | (2,225)         | (773)                         | -                        | (88,601)           |
| <b>AT DECEMBER 31, 2018</b>                      | <b>1,612,990</b>                    | <b>346,950</b>   | <b>8,956</b> | <b>22,308</b>   | <b>5,563</b>                  | <b>36,710</b>            | <b>2,033,477</b>   |
| <b>Depreciation</b>                              |                                     |                  |              |                 |                               |                          |                    |
| <b>AT DECEMBER 31, 2016</b>                      | <b>(960,404)</b>                    | <b>(126,103)</b> | <b>-</b>     | <b>(13,573)</b> | <b>(3,240)</b>                | <b>-</b>                 | <b>(1,103,320)</b> |
| Depreciation in the year                         | (124,044)                           | (14,812)         | -            | (2,203)         | (480)                         | -                        | (141,539)          |
| Transfers                                        | 3,075                               | -                | -            | -               | -                             | -                        | 3,075              |
| Disposal                                         | 9,011                               | 213              | -            | 2,004           | 36                            | -                        | 11,264             |
| <b>AT DECEMBER 31, 2017</b>                      | <b>(1,072,362)</b>                  | <b>(140,702)</b> | <b>-</b>     | <b>(13,772)</b> | <b>(3,684)</b>                | <b>-</b>                 | <b>(1,230,520)</b> |
| Depreciation in the year                         | (113,434)                           | (14,405)         | -            | (1,948)         | (459)                         | -                        | (130,246)          |
| Transfers                                        | -                                   | -                | -            | -               | -                             | -                        | -                  |
| Disposal                                         | 59,517                              | 32               | -            | 1,645           | 706                           | -                        | 61,900             |
| <b>AT DECEMBER 31, 2018</b>                      | <b>(1,126,279)</b>                  | <b>(155,075)</b> | <b>-</b>     | <b>(14,075)</b> | <b>(3,437)</b>                | <b>-</b>                 | <b>(1,298,866)</b> |
| <b>Carrying amount</b>                           |                                     |                  |              |                 |                               |                          |                    |
| AT DECEMBER 31, 2017                             | 572,436                             | 201,370          | 8,956        | 9,089           | 2,244                         | 33,493                   | 827,588            |
| AT DECEMBER 31, 2018                             | 486,711                             | 191,875          | 8,956        | 8,233           | 2,126                         | 36,710                   | 734,611            |

| Consolidated                                     | Machinery, facilities and equipment | Buildings        | Land          | Vehicles        | Furniture, fittings and other | Construction in progress | Total              |
|--------------------------------------------------|-------------------------------------|------------------|---------------|-----------------|-------------------------------|--------------------------|--------------------|
| <b>Cost</b>                                      |                                     |                  |               |                 |                               |                          |                    |
| <b>AT DECEMBER 31, 2016</b>                      | <b>3,127,670</b>                    | <b>678,821</b>   | <b>57,735</b> | <b>26,404</b>   | <b>20,062</b>                 | <b>118,780</b>           | <b>4,029,472</b>   |
| Addition                                         | -                                   | -                | -             | -               | -                             | 115,945                  | 115,945            |
| Transfer to property, plant and equipment in use | 73,403                              | 17,675           | -             | 480             | 2,190                         | (97,469)                 | (3,721)            |
| Exchange variation                               | 23,697                              | 5,367            | 726           | 17              | 219                           | 2,341                    | 32,367             |
| Disposal                                         | (22,958)                            | (750)            | -             | (2,886)         | (60)                          | -                        | (26,654)           |
| <b>AT DECEMBER 31, 2017</b>                      | <b>3,201,812</b>                    | <b>701,113</b>   | <b>58,461</b> | <b>24,015</b>   | <b>22,411</b>                 | <b>139,597</b>           | <b>4,147,409</b>   |
| Addition                                         | 3,596                               | -                | -             | -               | -                             | 173,240                  | 176,836            |
| Transfer to property, plant and equipment in use | 134,754                             | 20,741           | (5)           | 2,226           | 3,617                         | (161,333)                | -                  |
| Exchange variation                               | 271,162                             | 62,013           | 8,412         | 217             | 2,605                         | 16,075                   | 360,484            |
| Impairment                                       | -                                   | -                | -             | -               | -                             | -                        | -                  |
| Disposal                                         | (139,139)                           | (600)            | -             | (2,225)         | (774)                         | -                        | (142,738)          |
| <b>AT DECEMBER 31, 2018</b>                      | <b>3,472,185</b>                    | <b>783,267</b>   | <b>66,868</b> | <b>24,233</b>   | <b>27,859</b>                 | <b>167,579</b>           | <b>4,541,991</b>   |
| <b>Depreciation</b>                              |                                     |                  |               |                 |                               |                          |                    |
| <b>AT DECEMBER 31, 2016</b>                      | <b>(2,084,628)</b>                  | <b>(318,228)</b> | <b>-</b>      | <b>(14,439)</b> | <b>(11,783)</b>               | <b>-</b>                 | <b>(2,429,078)</b> |
| Depreciation in the year                         | (177,840)                           | (22,437)         | -             | (2,271)         | (1,517)                       | -                        | (204,065)          |
| Transfers                                        | 3,075                               | -                | -             | -               | -                             | -                        | 3,075              |
| Exchange variation                               | (18,754)                            | (3,162)          | -             | (12)            | (166)                         | -                        | (22,094)           |
| Disposal                                         | 11,736                              | 213              | -             | 2,004           | 36                            | -                        | 13,989             |
| <b>AT DECEMBER 31, 2017</b>                      | <b>(2,266,411)</b>                  | <b>(343,614)</b> | <b>-</b>      | <b>(14,718)</b> | <b>(13,430)</b>               | <b>-</b>                 | <b>(2,638,173)</b> |
| Depreciation in the year                         | (188,911)                           | (24,513)         | -             | (2,048)         | (2,437)                       | -                        | (217,909)          |
| Transfers                                        | -                                   | -                | -             | -               | -                             | -                        | -                  |
| Exchange variation                               | (206,694)                           | (35,393)         | -             | (169)           | (1,771)                       | -                        | (244,027)          |
| Disposal                                         | 112,959                             | 100              | -             | 1,645           | 706                           | -                        | 115,410            |
| <b>AT DECEMBER 31, 2018</b>                      | <b>(2,549,057)</b>                  | <b>(403,420)</b> | <b>-</b>      | <b>(15,290)</b> | <b>(16,932)</b>               | <b>-</b>                 | <b>(2,984,699)</b> |
| <b>Carrying amount</b>                           |                                     |                  |               |                 |                               |                          |                    |
| AT DECEMBER 31, 2017                             | 935,401                             | 357,499          | 58,461        | 9,297           | 8,981                         | 139,597                  | 1,509,236          |
| AT DECEMBER 31, 2018                             | 923,128                             | 379,847          | 66,868        | 8,943           | 10,927                        | 167,579                  | 1,557,292          |

The group of construction in progress mainly comprises investments in the support of capacity, environment, safety and projects in order to expansion of machining capacity in Mexico plants.

#### b. Impairment of non-financial assets

In order to optimizing the manufacturing plant and consequently reducing operating costs, due to the reduction of demand in the domestic market, in the automotive segment, and revision of the future plans of the operation, the Company deactivated part of the industrial park, in Mauá-SP, for an indefinite period.

The impacted plant is part of the unit that generates a blocks and heads, a component of the automotive segment of the Brazilian plant.

To determine the residual value of deferred operating assets, the Company used the fair value model of selling expenses, considering the level 3 hierarchy of fair value, which includes non-observable market information.

The measurement of the adjustment considered:

- Land, buildings and improvements, due to higher realization values per sale than those in use, were not subject to impairment;
- Assets that would be used in other plants, or kept in operation in the object plant, were identified and not computed in the adjustment. Costs for reallocation of these assets were measured and considered;
- Assets that would be "disconnected" and thus remain indefinitely were subject to impairment. In these cases, achievement values using as parts in other plants or as raw material (scrap) were estimated.

In December 31, 2016, the model showed that the recoverable value of the correspondent part of the assets from Mauá is lower than its book value. As a result the Company recorded a provision for loss of these assets in the amount of R\$84,760, under other operating expenses, net.

During 2017 and 2018, the Company evaluated and did not observe impairment indicators of its assets that may require supplementary provision or even change or reverse the provision recorded in 2016, thus maintaining the calculation made on December 31, 2016.

### c. Depreciation

The Company depreciates property, plant and equipment on a straight-line basis, reviewed annually, using the following useful lives:

|                                     | Average useful lives |
|-------------------------------------|----------------------|
| Machinery, facilities and equipment | 18 years             |
| Buildings                           | 35 years             |
| Vehicles                            | 5 years              |
| Furniture, fittings and other       | 14 years             |

### d. Capitalization of interest and financial charges

The Company recognizes interest and financial charges incurred during the period of construction of the qualifying assets as asset formation cost.

The amount recorded in the year ended December 31, 2018 totals R\$1,967 (R\$1,606 in 2017).

### e. Guarantees

The Company pledged property, plant and equipment items as collateral for borrowing amounting to R\$21,999 (R\$130,548 at the same period prior year), in the Parent Company and Consolidated and R\$5,895 (R\$5,895 at December 31, 2017) as a collateral for tax litigation in the Parent Company and Consolidated.

### f. Insured amounts

Property, plant and equipment are insured for fire, electrical damage and explosion. Insurance coverage is determined based on the amounts and the level of risk involved. (Note 28)

## 14. INTANGIBLE ASSETS

| Parent company                | Software      | Research and development costs | Total         |
|-------------------------------|---------------|--------------------------------|---------------|
| <b>AT DECEMBER 31, 2016</b>   | <b>59,836</b> | <b>-</b>                       | <b>59,836</b> |
| Acquisition/costs of software | 1,824         | 4,092                          | 5,916         |
| Transfers                     | 646           | -                              | 646           |
| Amortization                  | (8,121)       | -                              | (8,121)       |
| <b>AT DECEMBER 31, 2017</b>   | <b>54,185</b> | <b>4,092</b>                   | <b>58,277</b> |
| Acquisition/costs of software | 2,660         | 2,360                          | 5,020         |
| Transfers                     | (783)         | 783                            | -             |
| Disposal                      | (61)          | -                              | (61)          |
| Amortization                  | (8,257)       | (137)                          | (8,394)       |
| <b>AT DECEMBER 31, 2018</b>   | <b>47,744</b> | <b>7,098</b>                   | <b>54,842</b> |

| Consolidated                  | Software      | Contractual customer relationships | Non-competition agreement | Goodwill      | Research and development costs | Total          |
|-------------------------------|---------------|------------------------------------|---------------------------|---------------|--------------------------------|----------------|
| <b>AT DECEMBER 31, 2016</b>   | <b>66,991</b> | <b>221,722</b>                     | <b>310</b>                | <b>41,226</b> | <b>-</b>                       | <b>330,249</b> |
| Acquisition/costs of software | 4,060         | -                                  | -                         | -             | 4,092                          | 8,152          |
| Transfers                     | 646           | -                                  | -                         | -             | -                              | 646            |
| Disposal                      | (13)          | -                                  | -                         | -             | -                              | (13)           |
| Exchange variation            | 25            | 1,988                              | (11)                      | -             | -                              | 2,002          |
| Amortization                  | (12,039)      | (40,858)                           | (299)                     | -             | -                              | (53,196)       |
| Impairment                    | -             | 8,301                              | -                         | -             | -                              | 8,301          |
| <b>AT DECEMBER 31, 2017</b>   | <b>59,670</b> | <b>191,153</b>                     | <b>-</b>                  | <b>41,226</b> | <b>4,092</b>                   | <b>296,141</b> |
| Acquisition/costs of software | 5,707         | -                                  | -                         | -             | 2,360                          | 8,067          |
| Transfers                     | (783)         | -                                  | -                         | -             | 783                            | -              |
| Disposal                      | (2,552)       | -                                  | -                         | -             | -                              | (2,552)        |
| Exchange variation            | 870           | 30,148                             | -                         | -             | -                              | 31,018         |
| Amortization                  | (12,265)      | (49,066)                           | -                         | -             | (137)                          | (61,468)       |
| Impairment                    | -             | 33,631                             | -                         | -             | -                              | 33,631         |
| <b>AT DECEMBER 31, 2018</b>   | <b>50,647</b> | <b>205,866</b>                     | <b>-</b>                  | <b>41,226</b> | <b>7,098</b>                   | <b>304,837</b> |

### a. Computer software

It basically consists of a license for an enterprise management system (ERP), acquired in 2013. This ERP was developed in 2013 and 2014 and it was implemented in 2015. The amortization is being carried out, in a linear way, in 10 years.

### b. Contractual customer relationships

The contractual relationship arises from the acquisition of Tupy México S.A. de C.V. and Technocast S.A. de C.V. on April 16, 2012 and was calculated based on the minimum estimate of customer portfolio maintenance, taking the sales volumes of periods prior to the acquisition and the market perspectives existing at the time into consideration.

The calculation used the Multi-period Excess Earnings Method (MEEM), which covers ten-year period, equivalent to the minimum term estimated for the maintenance of the commercial relationship with the customers. These intangible assets will be amortized on a straight-line basis.

The aggregate of the customer portfolios that compose the contractual relationship presents, and projects in the long term, volumes and profitability significantly higher than the initial recognition of the asset, which make the profitability of the plants reach the appropriate level.

Considering that the intangible asset was recognized by each portfolio, and according to IFRS is not allowed compensation between them, at the end of 2017, individual analysis was made and we experienced an increase in the demand of some customers of transportation, infrastructure & agriculture segment, when compared with the originally projected volumes at the time of acquisition. Because of that, an impairment test is necessary. As a result of this procedures was recognized an reversal of impairment loss amounting of R\$8,301. (note 23)

During 2018 were observed continuous recovery of the volumes originally projected at the time of acquisition. Which resulted in the application of the impairment test. The result of the test determined a reversal of impairment recorded in prior years in the amount of R\$33,631. (note 23)

The methodology used at December 31, 2018 in order to determine the fair value for the remain period of 3.5 years, was the value in use. The assumptions used by management are classified as level 3 of the hierarchy, considering unobservable prices from the market, were as follows:

- Revenues were defined based on projections of demand by customer in the next 3.5 years.
- Operating margins were determined based on historical performance and on expectations arising from investments and operational improvements.
- Discount rate in real terms, before tax effects, of 8.90% p.y., which reflects the Company's specific risks.

### **c. Goodwill**

Intangible assets represented by the excess of the cost of an acquisition over the net fair value of assets and liabilities of the subsidiaries, Tupy Mexico S.A. de C.V. and Technocast S.A. de C.V., substantially generated by expected synergies.

Goodwill is allocated to the subsidiaries Tupy Mexico S.A., de C.V. and Technocast S.A., de C.V., which are considered as cash-generating units and operate in the automotive segment.

At the moment, there is goodwill impairment, which is recorded by calculation of the cash-generating unit's recoverable amount.

The recoverable amount was determined based on value-in-use calculations. These calculations utilize discounted cash flow projections, post-tax profit and capital expenses based on financial budgets in real terms (i.e., without considering inflation) approved by management and covering a five-year period. Cash flows beyond the five-year period are extrapolated using the cash flows for the 5th year. The key assumptions used for value-in-use calculations at December 31, 2018 are as follows:

- Revenues were defined based on projections of demand by customer in the next five years.
- Management determined the operating margins based on past performance and its expectations of market development.
- Discount rate in real terms of 8.90% p.y., before tax effects, which reflects the Company's specific risks.

Made sensitivity analysis to determine the impact on the change of its main variable, discount rate, considering an increase of 1p.p. and no lower value was found than the accounting cost of the investments, so that the Company did not identify the need for impairment adjustment on the recorded goodwill.

## 15. LOANS AND FINANCING

| Parent company                                                         |          |                            |                  |                  |
|------------------------------------------------------------------------|----------|----------------------------|------------------|------------------|
|                                                                        | Maturity | Effective rate             | 2018             | 2017             |
| <b>Local currency</b>                                                  |          |                            | <b>18,333</b>    | <b>431,934</b>   |
| (a) Expansion project of Tupy S.A. - BNDES                             | Jul/2018 | TJLP* + 2.46% p.y.         | -                | 15,755           |
| (b) BNDES Exim - Pre-shipment of the Investment Sustainability Program | Sep/2018 | 8%p.a. / TJLP* + 3.3% p.y. | -                | 92,149           |
| (c) Export credit notes                                                | Dec/2018 | 10.85% p.y.                | -                | 300,828          |
| Government Agency for Machinery and Equipment Financing (FINAME)       | Jan/2025 | 6.04% p.y.                 | 18,333           | 23,202           |
| <b>Foreign currency</b>                                                |          |                            | <b>1,395,346</b> | <b>1,196,405</b> |
| (a) Expansion project of Tupy S.A. - BNDES                             | Jul/2018 | VC* + 6.6% p.y.            | -                | 5,167            |
| (d) Export prepayment - Tupy Overseas                                  | Jul/2024 | VC* +6.78% p.y.            | 1,395,346        | 1,191,238        |
| Current portion                                                        |          |                            | 49,792           | 458,031          |
| Non-current portion                                                    |          |                            | 1,363,887        | 1,170,308        |
|                                                                        |          |                            | <b>1,413,679</b> | <b>1,628,339</b> |

\*VC = Foreign exchange variation  
\*TJLP = Long-term Interest Rate

| Consolidated                                                           |          |                            |                  |                  |
|------------------------------------------------------------------------|----------|----------------------------|------------------|------------------|
|                                                                        | Maturity | Effective rate             | 2018             | 2017             |
| <b>Local currency</b>                                                  |          |                            | <b>18,333</b>    | <b>431,934</b>   |
| (a) Expansion project of Tupy S.A. - BNDES                             | Jul/2018 | TJLP* + 2.46% p.y.         | -                | 15,755           |
| (b) BNDES Exim - Pre-shipment of the Investment Sustainability Program | Sep/2018 | 8%p.a. / TJLP* + 3.3% p.y. | -                | 92,149           |
| (c) Export credit notes                                                | Dec/2018 | 10.85% p.y.                | -                | 300,828          |
| Government Agency for Machinery and Equipment Financing (FINAME)       | Jan/2025 | 6.04% p.y.                 | 18,333           | 23,202           |
| <b>Foreign currency</b>                                                |          |                            | <b>1,388,590</b> | <b>1,189,622</b> |
| (a) Expansion project of Tupy S.A. - BNDES                             | Jul/2018 | VC* + 6.6% p.y.            | -                | 5,167            |
| (e) Senior Unsecured Notes - US\$350.000                               | Jul/2024 | VC+6.63% p.y.              | 1,388,590        | 1,184,455        |
| Current portion                                                        |          |                            | 47,431           | 456,015          |
| Non-current portion                                                    |          |                            | 1,359,492        | 1,165,541        |
|                                                                        |          |                            | <b>1,406,923</b> | <b>1,621,556</b> |

\*VC = Foreign exchange variation  
\*TJLP = Long-term Interest Rate

In December 31, 2018, the Company is in compliance with the Covenant terms, as presented below.

### a) Expansion project of Tupy S.A. – BNDES

In October of 2018 the Parent company settled the contract which the debit was R\$20,922 in December 31, 2017.

### b) BNDES Exim – Pre-shipment of the Investment Sustainability Program (PSI)

In January of 2018 the Parent Company settled in advance the totality of its debt in the modal of Pre-shipment of the Investment Sustainability Program (PSI).

### c) Export credit note

During the year of 2018 the Parent Company settled the totality of its debt that was R\$300,828 at December 31, 2017.

### d) Export prepayment - Tupy Overseas S.A.

The increase of R\$204,108 in the open amount reflects the lost in exchange variation. In January and July of 2018 the Parent Company paid an interest amount of R\$84,769 (R\$76,742 during the year of 2017).

### e) Senior Unsecured Notes

In July 2014, the Company completed the issuance of bonds ("Issuance") in the international market, through its subsidiary Tupy Overseas S.A. These bonds are guaranteed by the Parent company and

amount to US\$350,000 (R\$776,649), with single amortization in 2024. Interest, at the coupon of 6.625% p.a., are paid on a semiannual basis, in January and July. The loss registered by the impact of foreign exchange variations in 2018 amounting, R\$199,561 (R\$17,807 of loss in 2017).

The funds provided by the Issuance was used to pay Company's debts maturing from 2014 and 2017.

The Issuance includes Covenants, the main financial indicator of which is the net debt/ adjusted EBITDA, and, in December 31, 2018, the Company is in compliance with the Covenant terms. In the case on non-compliance by the Company, they would result in prohibition to: (i) obtaining new borrowings; (ii) distributing dividends in excess of the minimum amount provided by law; (iii) making investments that are not related to the maintenance of production activities; and (iv) repurchasing shares issued by the Company.

Furthermore, the Issuance also includes non-financial Covenants. The main non-financial measure that could cause the early termination of the Issuance is the change in the Company's controlling interest in such a way that it decreases the external risk rating.

#### f) Fair value of borrowings

The fair value of the Company's borrowings (classified in Level 2 of the fair value hierarchy) is calculated through the discount of future flows of their payments at the curves, interest rates and currencies observable in the financial market. At December 31, 2018, the fair value of borrowings was R\$1,403,817 (R\$1,664,536 at December 31, 2017).

#### g) Long-term maturities

| Year      | Parent company   |                  | Consolidated     |                  |
|-----------|------------------|------------------|------------------|------------------|
|           | Dec/18           | Dec/17           | Dec/18           | Dec/17           |
| 2020      | 4,233            | 4,233            | 4,233            | 4,233            |
| 2021-2023 | 6,839            | 11,072           | 6,839            | 11,072           |
| 2024      | 1,352,784        | 1,154,972        | 1,348,389        | 1,150,205        |
| 2025      | 31               | 31               | 31               | 31               |
|           | <b>1,363,887</b> | <b>1,170,308</b> | <b>1,359,492</b> | <b>1,165,541</b> |

## 16. SALARIES, SOCIAL SECURITY CHARGES AND PROFIT SHARING

|                                                  | Parent company |                | Consolidated   |                |
|--------------------------------------------------|----------------|----------------|----------------|----------------|
|                                                  | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| Salaries                                         | 15,490         | 15,403         | 25,009         | 21,821         |
| Provision for vacation pay and 13th month salary | 47,026         | 45,072         | 56,233         | 51,666         |
| Social charges                                   | 16,150         | 9,243          | 28,770         | 17,714         |
| Profit sharing                                   | 45,565         | 40,475         | 53,094         | 45,718         |
| Private pension plan                             | 853            | 816            | 853            | 816            |
|                                                  | <b>125,084</b> | <b>111,009</b> | <b>163,959</b> | <b>137,735</b> |

The Company's profit-sharing program applies proportionately according to time in service and is based on financial and operating indicators and individual performance goals. In 2011, the Company introduced an optional private pension plan for all employees in Brazil. It is a defined contribution plan, for which the amount contributed by the employee, limited to an established percentage on the payroll, is matched with the same amount by the Company.

## 17. RETIREMENT BENEFIT OBLIGATIONS

The operations in Mexico have defined benefit obligations. The purpose of these plans is to offer employees retirement benefits, in addition to and complementing those provided by other retirement

or pension plans, whether public or private. In addition, the Mexican legislation also establishes other defined benefits such as age premium and legal indemnity.

| <b>Consolidated</b>                              |               |               |
|--------------------------------------------------|---------------|---------------|
| <b>Obligations recorded in the balance sheet</b> | <b>Dec/18</b> | <b>Dec/17</b> |
| <b>Social security plan benefits</b>             |               |               |
| Pension plan                                     | 10,669        | 8,827         |
| <b>Other employee benefits</b>                   |               |               |
| Seniority premium                                | 5,918         | 5,023         |
| Legal indemnity                                  | 16,378        | 14,077        |
|                                                  | <b>32,965</b> | <b>27,927</b> |

## 18. PROVISION FOR TAX, CIVIL, SOCIAL SECURITY AND LABOR CONTINGENCIES

The Company and the subsidiaries are a party to ongoing litigation arising in the normal course of its business and for which provisions (in the case of probable losses) were constituted based on estimates made by its legal counsel.

The changes in the provisions for tax, civil, social security and labor contingencies in the year ended December 31, 2018 and the related judicial deposits were as follows:

| <b>Parent company</b>       |               |               |               |                        |                          |                |
|-----------------------------|---------------|---------------|---------------|------------------------|--------------------------|----------------|
|                             | <b>Civil</b>  | <b>Tax</b>    | <b>Labor</b>  | <b>Social security</b> | <b>Judicial deposits</b> | <b>Total</b>   |
| <b>AT DECEMBER 31, 2016</b> | <b>46,641</b> | <b>44,925</b> | <b>56,978</b> | <b>17,989</b>          | <b>(19,794)</b>          | <b>146,739</b> |
| Additions                   | -             | 26,572        | 33,391        | 6,213                  | (31,162)                 | 35,014         |
| Restatements                | 188           | 1             | (13,339)      | (926)                  | (677)                    | (14,753)       |
| Payments                    | (2)           | (3,430)       | (24,109)      | (6,274)                | -                        | (33,815)       |
| Deposit Redemption          | -             | -             | -             | -                      | 17,331                   | 17,331         |
| <b>AT DECEMBER 31, 2017</b> | <b>46,827</b> | <b>68,068</b> | <b>52,921</b> | <b>17,002</b>          | <b>(34,302)</b>          | <b>150,516</b> |
| Additions                   | 2,606         | 6,938         | 2,964         | -                      | (16,034)                 | (3,526)        |
| Restatements                | 7,916         | (2,085)       | 35,125        | 1,315                  | (1,152)                  | 41,119         |
| Payments                    | -             | (12,616)      | (26,161)      | (399)                  | -                        | (39,176)       |
| Deposit Redemption          | -             | -             | -             | -                      | 15,314                   | 15,314         |
| <b>AT DECEMBER 31, 2018</b> | <b>57,349</b> | <b>60,305</b> | <b>64,849</b> | <b>17,918</b>          | <b>(36,174)</b>          | <b>164,247</b> |
| Current                     |               |               |               |                        |                          | 28,043         |
| Non-current                 |               |               |               |                        |                          | 136,204        |
|                             |               |               |               |                        |                          | <b>164,247</b> |
| <b>Consolidated</b>         |               |               |               |                        |                          |                |
|                             | <b>Civil</b>  | <b>Tax</b>    | <b>Labor</b>  | <b>Social security</b> | <b>Judicial deposits</b> | <b>Total</b>   |
| <b>AT DECEMBER 31, 2016</b> | <b>47,100</b> | <b>44,925</b> | <b>59,559</b> | <b>17,989</b>          | <b>(19,960)</b>          | <b>149,613</b> |
| Additions                   | -             | 26,584        | 30,942        | 6,213                  | (30,996)                 | 32,743         |
| Restatements                | (271)         | 1             | (13,339)      | (926)                  | (677)                    | (15,212)       |
| Payments                    | (2)           | (3,432)       | (24,109)      | (6,274)                | -                        | (33,817)       |
| Deposit Redemption          | -             | -             | -             | -                      | 17,331                   | 17,331         |
| <b>AT DECEMBER 31, 2017</b> | <b>46,827</b> | <b>68,078</b> | <b>53,053</b> | <b>17,002</b>          | <b>(34,302)</b>          | <b>150,658</b> |
| Additions                   | 2,617         | 6,927         | 2,964         | -                      | (16,034)                 | (3,526)        |
| Restatements                | 7,916         | (2,084)       | 34,993        | 1,315                  | (1,152)                  | 40,988         |
| Payments                    | -             | (12,616)      | (26,161)      | (399)                  | -                        | (39,176)       |
| Deposit Redemption          | -             | -             | -             | -                      | 15,314                   | 15,314         |
| <b>AT DECEMBER 31, 2018</b> | <b>57,360</b> | <b>60,305</b> | <b>64,849</b> | <b>17,918</b>          | <b>(36,174)</b>          | <b>164,258</b> |
| Current                     |               |               |               |                        |                          | 28,043         |
| Non-current                 |               |               |               |                        |                          | 136,215        |
|                             |               |               |               |                        |                          | <b>164,258</b> |

Generally, the Company's provisions for contingencies are long-term provisions. Considering the formalities of the judicial and administrative proceedings in the Brazilian judicial system, there is

difficulties in to making accurate estimates about limit of conclusion of those contingencies, and because of this the Company does not disclose the settlement flow of these liabilities.

The aforementioned provisions are adjusted mainly based on the Special System for Settlement and Custody (SELIC) rate and the General Market Price Index (IGPM).

#### a. Civil

Provisions for civil contingencies at December 31, 2018 amounted to R\$57,360. The residual amount is mainly related to attorney's fees in successful lawsuits.

#### b. Tax

Provisions related to tax administrative proceedings involving certain credits taken by the Company in the calculation of ICMS, PIS, COFINS, Corporate Income Tax (IRPJ) and social Contribution on Net Income (CSLL) and tax over intercompany operation.

The changes occurred during 2018, in addition to referring to adjusts. Considering also, the modification of the probability of loss of tax contingencies related to federal taxes. According with the position from the judges and payments occurred during 2018. The increase in 2017 reflects causes related with tax over intercompany operation, amounting of R\$24,666.

#### c. Labor

Lawsuits filed by former employees, by themselves or claimed by the Union of the category, in progress at the Labor Courts, claiming compensation and payroll charges allegedly owed by the Company.

#### d. Social security

Social security provisions relate to alleged debits resulting from differences between the social security contribution form (GFIP) and the respective payment (GPS). These differences arise from amounts challenged by the Company for which judicial deposits were made.

#### Contingencies involving possible losses

The contingencies involving a risk of loss deemed "possible", according to the assessment made by Management and the Company's outside legal counsel, are described in the table below.

|                             | Parent company |                | Consolidated   |                |
|-----------------------------|----------------|----------------|----------------|----------------|
|                             | Dec/18         | Dec/17         | Dec/18         | Dec/17         |
| IRPJ and CSLL processes     | 164,765        | 188,963        | 165,133        | 189,895        |
| PIS, COFINS and IPI credits | 133,682        | 129,536        | 133,682        | 129,536        |
| ICMS credits                | 137,632        | 123,257        | 137,632        | 123,257        |
| Expired tax debts           | 144,520        | 141,749        | 144,520        | 141,749        |
| Customs                     | 59,661         | 57,700         | 59,661         | 57,700         |
| Social security             | 80,368         | 89,110         | 80,368         | 89,110         |
| Labor lawsuits              | 84,429         | 133,631        | 84,498         | 134,636        |
| Civil and other             | 55,111         | 48,657         | 55,331         | 50,102         |
|                             | <b>860,168</b> | <b>912,602</b> | <b>860,825</b> | <b>915,985</b> |

Except when describe in a different way, all the variance between 2018 and 2017 periods are consequence of restatement of the amounts.

#### e. IRPJ and CSLL

Corporate Income Tax (IRPJ) and Social Contribution on Net Income (CSLL): administrative proceedings of 1994 and 2006 in which the Brazilian Federal Revenue Service challenges, respectively, the calculation

of taxable income and the use of estimated IRPJ. The Company submitted a defense stating that the tax calculation was correct.

**f. PIS and COFINS credits**

Social Integration Program (PIS) and Social Contribution on Revenues (COFINS): Administrative and judicial proceedings in which the Brazilian Federal Revenue Service challenged the Company, in the most of the procedures, as to (i) the use of credits generated in the acquisition of inputs from 2004 to 2011; and (ii) appropriation of backdated tax credits. The Company submitted an administrative and a judicial defenses showing the eligibility for the use of credits in accordance with the applicable tax legislation.

**g. ICMS credits**

Administrative and legal proceeding filed by the tax authorities of the states of São Paulo and Santa Catarina for the years 2008 to 2013, in which the use of certain ICMS credits by the Mauá and Joinville plants are challenged. In all the cases, the Company has shown the eligibility for the use of credits in accordance with the applicable tax legislation.

**h. Expired tax debts**

Administrative and judicial tax demands made by the Federal Government related to alleged offsets of debts with IPI premium credit. In its defense, the Company claims that, in administrative and judicial form, the statute of limitation period of said debts has expired, in compliance with case law of higher courts.

**i. Customs**

Administrative proceeding filed in 2006 in which the Brazilian Federal Revenue Service requires from the Company a fine corresponding to the customs value of merchandise related to import of inputs. In its defense, the Company sustains and evidences that the transactions are legal and also demonstrates that some of the merchandise listed in the tax assessment were not even addressed to the Company.

**j. Social security**

Administrative and legal proceedings filed by the Brazilian Federal Revenue Service for 1998 and 2008 concerning alleged debts related to social security contributions on payroll and owed by service providers (joint responsibility). In all the cases, the Company's defense has shown that the procedures adopted are in full compliance with tax legislation.

The variation, in addition to the effect of the monetary variation, refers to social security debts excluded from tax amnesty by the federal tax authorities.

**k. Labor**

Lawsuits filed by former employees and a former sales representative in progress at the Labor Courts, claiming compensation and payroll charges allegedly owed by the Company.

The variations were due to increase of new labor claims against the Company, from exchange of loss probability and reflecting the causes status and updates of contingency values.

**l. Civil**

In general, the civil lawsuits relate to controversies involving former suppliers of the Company's.

## 19. SHARE CAPITAL, CARRYING VALUE ADJUSTMENTS, RESERVES AND DIVIDENDS

### a) Share capital

| Share capital breakdown in number of shares                      | Dec/18             |               | Dec/17             |               |
|------------------------------------------------------------------|--------------------|---------------|--------------------|---------------|
|                                                                  | Number             | %             | Number             | %             |
| <b>Controlling stockholders</b>                                  |                    |               |                    |               |
| BNDES Participações S.A. – BNDESPAR                              | 40,645,370         | 28.2%         | 40,645,370         | 28.2%         |
| Caixa de Previdência dos Funcionários do Banco do Brasil – PREVI | 37,314,154         | 25.9%         | 37,536,454         | 26.0%         |
| <b>Officers</b>                                                  | 85,744             | 0.1%          | 41,589             | 0.0%          |
| <b>Treasury stock</b>                                            | 13,527             | 0.0%          | -                  | 0.0%          |
| Amundi AM London Branch (Former Pioneer Funds)                   | 4,236,320          | 2.9%          | 7,625,500          | 5.3%          |
| Fundação Embratel de Seguridade Social - TELOS                   | -                  | 0.0%          | 7,744,156          | 5.4%          |
| Other stockholders                                               | 61,882,385         | 42.9%         | 50,584,431         | 35.1%         |
| <b>Total outstanding shares</b>                                  | <b>144,177,500</b> | <b>100.0%</b> | <b>144,177,500</b> | <b>100.0%</b> |

Authorized capital is limited to R\$ 1,200,000, represented by registered book-entry common shares with no par value.

The Company, its stockholders, management and members of the Statutory Audit Board are committed to resolve, through arbitration at the Market Arbitration Chamber, any dispute that may arise between them, relating to or originating, especially, from the application, validity, efficacy, interpretation, violation, and their effects, of the provisions of Brazilian Corporation Law, of the Company's bylaws, the regulations issued by the National Monetary Council, the Brazilian Central Bank and the Brazilian Securities Commission, as well as other regulations applicable to the functioning of capital markets in general, besides those comprised in the Regulations of the New Market, the Market Arbitration Chamber, the Sanctions Regulation and the Contract for Participation in the New Market.

### b) Treasury stock

Common shares acquired to deliver to beneficiaries which exercise the option of the Stock Option Plan. This operation was carried out in accordance with rules approved by the Board of Directors at a meeting held on September 27, 2017. On this date it was defined that the repurchase program would be effective until December 28, 2018 and would be for the acquisition of up to 233,000 common shares.

|                                          | Value (R\$ thousand) | Quantity      | Share value (R\$) |
|------------------------------------------|----------------------|---------------|-------------------|
| <b>AT DECEMBER 31, 2016</b>              | -                    | -             | -                 |
| Repurchase of shares in the period (i)   | 740                  | 41,585        | 17.80             |
| Used for stock option plan (ii)          | (740)                | (41,585)      | 17.80             |
| <b>AT DECEMBER 31, 2017</b>              | -                    | -             | -                 |
| Repurchase of shares in the period (iii) | 1,809                | 89,898        | 20.12             |
| Used for stock option plan (ii)          | (1,517)              | (76,371)      | 19.86             |
| <b>AT DECEMBER 31, 2018</b>              | <b>292</b>           | <b>13,527</b> | <b>21.56</b>      |

(i) Corresponds to repurchases made in the period in order to deliver common shares to Long-Term Incentive Plan (ILP) beneficiaries. The repurchases were made in accordance with rules approved by the Board of Directors, whose lowest and highest prices were R\$17.79 and R\$17.82, respectively.

(ii) Shares used in the granting exercise provided for in the "Program for granting stock options".

(iii) Corresponds to repurchases made in the period in order to deliver common shares to Long-Term Incentive Plan (ILP) beneficiaries. The repurchases were made in accordance with rules approved by the Board of Directors, whose lowest and highest prices were R\$18.85 and R\$21.58, respectively.

As of December 31, 2018, the market value of treasury shares was R\$292.

### c) Stock option plan

On November 24, 2014, the Annual General Meeting approved the stock option plan to the Company's statutory board members and the current Chairman of the Board of Directors (Beneficiaries), as Long-Term Incentive Plan (ILP). The long term incentive plan mainly purpose are (i) to align the interests of the Plan Beneficiaries with the Company's Shareholders, (ii) to motivate and incentive the participants, (iii) attract, and specially, retain talents. Besides the Annual stock option plan, could be approved the Additional stock option plan.

The options are granted to the Beneficiaries at a purchase or exercise price equivalent to the average price quotations at Stock Exchanges (weighted by the volume) of the last 30 days prior to the option-granting date.

The Beneficiaries will be able to exercise their options three years after the granting date (vesting period). The stock options (i) will be exercised on a progressive basis, that is: 33% in the third year, 33% in the fourth year and 34% in the fifth year, and (ii) must be exercised in up to eight months after acquisition of each exercise right or by no later than December 31 (or the previous business day, in case December 31 falls on a non-business day), in the year when the right was acquired, whichever comes first (Exercise Term). In case of restrictions regarding the trading of the Company's shares during the Exercise Term, the final date of the Exercise Term will be postponed for the same number of days of the restriction.

All beneficiaries have been exercised their options during the period of exercise. In order to meet the exercise of the options, the Company has opened a share repurchase program to settle such obligation.

|                             | Shares quantities |                   |                     |                        |                          | Year Average price (R\$) |
|-----------------------------|-------------------|-------------------|---------------------|------------------------|--------------------------|--------------------------|
|                             | Granted option    | Exercised options | Canceled Options(*) | Share option in market | Share option to exercise |                          |
| (a) Granted in 04/11/2014   | 738,668           | (474,185)         | (45,031)            | 219,452                | -                        | 19.81                    |
| (b) Granted in 04/11/2014   | 123,327           | (123,327)         | -                   | -                      | -                        | 17.80                    |
| (a) Granted in 04/11/2015   | 788,060           | (294,394)         | -                   | 493,666                | -                        | 20.44                    |
| (a) Granted in 04/11/2016   | 737,416           | -                 | -                   | 737,416                | -                        | -                        |
| <b>AT DECEMBER 31, 2018</b> | <b>2,387,471</b>  | <b>(891,906)</b>  | <b>(45,031)</b>     | <b>1,450,534</b>       | -                        |                          |

(\*) The canceled options refers to granted options to beneficiaries resigned

- (a) Annual program.
- (b) Additional program.

### d) Carrying value adjustments

Includes the balance of asset revaluations made in 1990 for the Land and buildings accounts and, in 2005, for the Machinery and equipment account, with residual balance at December 31, 2018 amounting to R\$10,712 (R\$11,166 in 2017) and R\$31,106 (R\$40,301 in 2017), respectively, which were included as an integral part of the costs of the assets. Realization against the Retained earnings account is proportional to the corresponding assets' depreciation, when applicable.

The remaining balance of the "Carrying value adjustment" account refers to the effects arising from translating the balance of subsidiaries operating with a functional currency other than the currency in which these financial statements are presented, as disclosed in Note 2.

### e) Revenue reserves

#### ▪ Legal reserve

The reserve is recorded at the rate of 5% of the net income for each year, in compliance with Article 193 of Law 6,404/76, up to the limit of 20% of the capital.

#### ▪ Investment reserve

This reserve is recorded in an amount not less than 5% of annual profit, up to the limit of 50% of capital. The balance, together with the other revenue reserves, except for those relating to contingencies, tax incentives and unrealized profits, cannot exceed the amount of capital.

| Investment reserve |              |              |                  |                |                |
|--------------------|--------------|--------------|------------------|----------------|----------------|
|                    | Constitution | Distribution | Capital increase | Balance        | Expansion (*)  |
| 2007               | 46,963       | -            | -                | 46,963         | -              |
| 2008               | 131,295      | -            | -                | 178,258        | 79,864         |
| 2009               | 98,886       | -            | -                | 277,144        | 65,776         |
| 2010               | 97,440       | -            | -                | 374,584        | 61,080         |
| 2011               | 125,014      | -            | -                | 499,598        | 135,133        |
| 2012               | 48,220       | -            | (138,656)        | 409,162        | 109,035        |
| 2013               | 71,646       | -            | -                | 480,808        | 93,427         |
| 2014               | 73,887       | -            | -                | 554,695        | 84,364         |
| 2015               | 118,151      | -            | -                | 672,846        | 42,931         |
| 2016               | (169,375)    | (100,358)    | -                | 403,113        | 20,046         |
| 2017               | 156,651      | (200,000)    | -                | 359,764        | 36,052         |
| 2018               | 268,948      | (162,500)    | -                | 466,212        | 43,200         |
|                    |              |              |                  | <b>466,212</b> | <b>770,908</b> |

(\*) Refer to strategic investment in property, plant and equipment for expansion of the production capacity.

### f) Allocation of profits

Stockholders are entitled to receive a minimum dividend of 25% of the net income for the year, according Company's by-laws, adjusted in accordance with the provisions of Article 202 of Law 6,406/76.

In 2018, R\$268,948 was allocated to the investments reserve account (R\$156,651 in 2017), incorporating the base used for the distribution of dividends from 2018.

The distributions made in 2018 and 2017 were supported by profit reserves of the subgroup of investment reserves, and were allocated to the minimum dividend in accordance with the Company's by-laws in the form of art. 202 of Law 6404/76. The values distributed are greater than the mandatory minimum dividend.

The amounts of dividends and interest on capital distributed to shareholders during 2017 and 2018, or liabilities constituted at the end of each year, were approved by the Company's Board of Directors at meetings held on March 28, 2017; March 13, 2018 and November 07, 2018.

The following tables present the form used (Interest on Equity - JCP or Dividends), the dates of the Board of Directors' deliberations, the dates of payments, the gross and net values of IRRF and the values per share.

Dividend calculation table for the 2018 and 2017 dividends:

|                                    | Dec/18         | Dec/17         |
|------------------------------------|----------------|----------------|
| <b>Dividend calculation basis</b>  |                |                |
| Investment reserve                 | 359,764        | 403,113        |
| Net income for the year            | 271,721        | 153,401        |
| Equity valuation adjustment        | 9,649          | 9,748          |
| Reverse of the share option        | 1,164          | 1,172          |
| Transfer to the legal reserve (5%) | (13,586)       | (7,670)        |
|                                    | <b>628,712</b> | <b>559,764</b> |

|                                    |                |                |
|------------------------------------|----------------|----------------|
| <b>Proposal for allocation (*)</b> |                |                |
| Interet on capital, gross          | 103,377        | 108,653        |
| Dividends                          | 59,123         | 91,347         |
|                                    | <b>162,500</b> | <b>200,000</b> |

|                              |                |                |
|------------------------------|----------------|----------------|
| <b>Unit amount per share</b> |                |                |
| Interet on capital, gross    | 1.12708        | 1.38718        |
|                              | <b>1.12708</b> | <b>1.38718</b> |

The approvals and the payments of dividend occurred in 2018 and 2017as follow:

#### Dividends of 2018

| Approved date | Form               | Gross amount   | per share      | Net amount     | Payment date |
|---------------|--------------------|----------------|----------------|----------------|--------------|
| 03.13.2018    | Interes on capital | 37,500         | 0.26010        | 34,275         | 05.25.2018   |
| 03.13.2018    | Interes on capital | 37,500         | 0.26010        | 34,154         | 08.24.2018   |
| 03.13.2018    | Interes on capital | 28,377         | 0.19682        | 25,586         | 11.26.2018   |
| 03.13.2018    | Dividends          | 9,123          | 0.06328        | 9,123          | 11.26.2018   |
| 11.07.2018    | Dividends          | 12,500         | 0.08670        | 12,500         | 11.26.2018   |
| 03.14.2019    | Dividends          | 37,500         | 0.26010        | 37,500         | 03.28.2019   |
|               |                    | <b>162,500</b> | <b>1.12708</b> | <b>153,138</b> |              |

#### Dividends of 2017

| Approved date | Form               | Gross amount   | per share      | Net amount     | Payment date |
|---------------|--------------------|----------------|----------------|----------------|--------------|
| 03.28.2017    | Interes on capital | 50,000         | 0.34679        | 46,071         | 06.26.2017   |
| 03.28.2017    | Interes on capital | 50,000         | 0.34679        | 45,933         | 08.31.2017   |
| 03.28.2017    | Interes on capital | 8,653          | 0.06002        | 7,944          | 11.30.2017   |
| 03.28.2017    | Dividends          | 41,347         | 0.28678        | 41,347         | 11.30.2017   |
| 03.28.2017    | Dividends          | 50,000         | 0.34679        | 50,000         | 03.28.2018   |
|               |                    | <b>200,000</b> | <b>1.38717</b> | <b>191,295</b> |              |

## 20. REVENUES

The reconciliation between gross and net revenues for the year is as follows:

|                                           | Parent company   |                  | Consolidated     |                  |
|-------------------------------------------|------------------|------------------|------------------|------------------|
|                                           | Dec/18           | Dec/17           | Dec/18           | Dec/17           |
| Gross revenue                             | 2,833,104        | 2,372,549        | 5,169,866        | 3,961,866        |
| Returns and rebates                       | (33,419)         | (37,740)         | (110,192)        | (84,901)         |
| <b>Revenue net of returns and rebates</b> | <b>2,799,685</b> | <b>2,334,809</b> | <b>5,059,674</b> | <b>3,876,965</b> |
| Sales taxes                               | (231,458)        | (170,814)        | (231,458)        | (170,814)        |
| <b>Net revenue</b>                        | <b>2,568,227</b> | <b>2,163,995</b> | <b>4,828,216</b> | <b>3,706,151</b> |
| <b>Net revenue</b>                        |                  |                  |                  |                  |
| Domestic market                           | 832,714          | 653,451          | 832,714          | 653,451          |
| Foreign market                            | 1,735,513        | 1,510,544        | 3,995,502        | 3,052,700        |
|                                           | <b>2,568,227</b> | <b>2,163,995</b> | <b>4,828,216</b> | <b>3,706,151</b> |

Since June 2018, with the reduction of the rate of Reitegra, from 2% to 0.10% over the amount of revenues from exports. The Company did not recognize in 2018 amounting of R\$20,180.

## 21. COSTS AND EXPENSES BY NATURE

The breakdown of costs and expenses by nature, reconciled with costs and expenses by function presented in the statement of income for the year, is as follows:

|                                       | Parent company     |                    | Consolidated       |                    |
|---------------------------------------|--------------------|--------------------|--------------------|--------------------|
|                                       | Dec/18             | Dec/17             | Dec/18             | Dec/17             |
| Raw and processing materials          | (1,132,049)        | (888,689)          | (2,285,661)        | (1,590,434)        |
| Maintenance and consumption materials | (173,533)          | (192,619)          | (384,441)          | (366,001)          |
| Salaries and payroll taxes            | (524,338)          | (449,651)          | (874,413)          | (690,585)          |
| Profit sharing                        | (43,087)           | (37,196)           | (55,290)           | (46,259)           |
| Social benefits                       | (90,878)           | (97,891)           | (92,167)           | (105,190)          |
| Electricity                           | (115,451)          | (129,722)          | (220,804)          | (210,384)          |
| Freight and commission on sales       | (80,266)           | (70,948)           | (135,028)          | (107,872)          |
| Management fees                       | (10,786)           | (11,624)           | (10,786)           | (11,624)           |
| Other costs                           | (30,684)           | (28,824)           | (92,561)           | (56,653)           |
|                                       | <b>(2,201,072)</b> | <b>(1,907,164)</b> | <b>(4,151,151)</b> | <b>(3,185,002)</b> |
| Depreciation                          | (137,915)          | (148,956)          | (229,583)          | (215,398)          |
|                                       | <b>(2,338,987)</b> | <b>(2,056,120)</b> | <b>(4,380,734)</b> | <b>(3,400,400)</b> |
| Cost of products sold                 | (2,093,923)        | (1,834,042)        | (4,032,290)        | (3,099,966)        |
| Selling expenses                      | (112,267)          | (97,979)           | (185,599)          | (151,530)          |
| Administrative expenses               | (122,012)          | (112,475)          | (152,060)          | (137,280)          |
| Management fees                       | (10,785)           | (11,624)           | (10,785)           | (11,624)           |
|                                       | <b>(2,338,987)</b> | <b>(2,056,120)</b> | <b>(4,380,734)</b> | <b>(3,400,400)</b> |

Since September, the Company is adopting the procedure established in Law 13,670/18, which provides for the reoperation of payroll. The approximate impact in the quarter related to this adoption is R\$20,500.

## 22. FINANCE RESULT

|                                                              | Parent company   |                  | Consolidated     |                  |
|--------------------------------------------------------------|------------------|------------------|------------------|------------------|
|                                                              | 2018             | 2017             | 2018             | 2017             |
| <b>Finance results</b>                                       |                  |                  |                  |                  |
| <b>Financial liabilities at amortized cost</b>               | <b>(97,946)</b>  | <b>(130,739)</b> | <b>(95,991)</b>  | <b>(129,203)</b> |
| Borrowing                                                    | (97,659)         | (130,784)        | (95,704)         | (129,248)        |
| Notes payable and other financial liabilities                | (287)            | 45               | (287)            | 45               |
| <b>Financial assets at fair value through profit or loss</b> | <b>(813)</b>     | <b>183</b>       | <b>(813)</b>     | <b>183</b>       |
| IPI - premium credit (note 8)                                | (813)            | 183              | (813)            | 183              |
| <b>Other finance costs</b>                                   | <b>(13,098)</b>  | <b>(15,751)</b>  | <b>(17,517)</b>  | <b>(20,609)</b>  |
| <b>Finance costs</b>                                         | <b>(111,857)</b> | <b>(146,307)</b> | <b>(114,321)</b> | <b>(149,629)</b> |
| <b>Financial assets at fair value through profit or loss</b> | <b>45,277</b>    | <b>(203)</b>     | <b>45,277</b>    | <b>(203)</b>     |
| Credits - Eletrobrás                                         | 44,930           | -                | 44,930           | -                |
| Investments in equity instruments                            | 347              | (203)            | 347              | (203)            |
| <b>Amortized cost</b>                                        | <b>19,849</b>    | <b>69,761</b>    | <b>19,849</b>    | <b>69,761</b>    |
| Cash and cash equivalents                                    | 19,849           | 69,761           | 19,849           | 69,761           |
| <b>Tax credits and other finance income</b>                  | <b>20,324</b>    | <b>32,030</b>    | <b>24,515</b>    | <b>36,028</b>    |
| <b>Finance income</b>                                        | <b>85,450</b>    | <b>101,588</b>   | <b>89,641</b>    | <b>105,586</b>   |
| <b>Derivative financial instruments</b>                      |                  |                  |                  |                  |
| Foreign exchange variations                                  | 13,925           | (2,815)          | 12,576           | (13,551)         |
| Derivative financial instruments                             | (5,462)          | 818              | (511)            | 1,386            |
| <b>Foreign exchange variations, net</b>                      | <b>8,463</b>     | <b>(1,997)</b>   | <b>12,065</b>    | <b>(12,165)</b>  |
| <b>Finance results</b>                                       | <b>(17,944)</b>  | <b>(46,716)</b>  | <b>(12,615)</b>  | <b>(56,208)</b>  |

In accordance of the IFRS 9 since January 1, 2018 the Company started on to recognize the cash and cash equivalents as an Amortized Cost. Previously it was considered as a Loans and Receivables.

## 23. OTHER OPERATING INCOME (EXPENSES)

|                                                               | Parent company  |                 | Consolidated     |                  |
|---------------------------------------------------------------|-----------------|-----------------|------------------|------------------|
|                                                               | 2018            | 2017            | 2018             | 2017             |
| Atualization of amounts receivable Eletrobrás (note 10)       | 128,736         | -               | 128,736          | -                |
| Adjust of amounts receivable Eletrobrás (note 10)             | (104,862)       | -               | (104,862)        | -                |
| Constitution and restatement of provision                     | (54,779)        | (45,887)        | (54,648)         | (42,991)         |
| Impairment ICMS SC tax (note 7)                               | (45,567)        | -               | (45,567)         | -                |
| Impairment 1988/1990 IPI premium credit (note 7)              | (30,126)        | -               | (30,126)         | -                |
| Disposals of property, plant and equipment                    | (894)           | 2,439           | (6,976)          | 2,353            |
| Partial factory deactivation                                  | -               | (44,141)        | -                | (44,141)         |
| Recognition of extemporaneous credits PIS / COFINS (note 7)   | 50,245          | -               | 50,245           | -                |
| Recognition of Reintegra                                      | 8,582           | -               | 8,582            | -                |
| Loss on the sale of unusable assets and write-off of third p: | (20,011)        | 598             | (6,820)          | 2,735            |
|                                                               | <b>(68,676)</b> | <b>(86,991)</b> | <b>(61,436)</b>  | <b>(82,044)</b>  |
| Depreciation of non-operating assets                          | (725)           | (704)           | (728)            | (706)            |
| Amortization of intangible assets                             | -               | -               | (49,066)         | (41,157)         |
| <b>Total other operating expenses, net</b>                    | <b>(69,401)</b> | <b>(87,695)</b> | <b>(111,230)</b> | <b>(123,907)</b> |
| Intangible asset impairment (note 15)                         | -               | -               | 33,631           | 8,301            |
| <b>Total impairment adjustments</b>                           | <b>-</b>        | <b>-</b>        | <b>33,631</b>    | <b>8,301</b>     |

All amounts in thousands of reais unless otherwise stated

## 24. INCOME TAX AND SOCIAL CONTRIBUTION IN THE RESULTS

|                                                                                | Parent company  |                | Consolidated    |                |
|--------------------------------------------------------------------------------|-----------------|----------------|-----------------|----------------|
|                                                                                | 2018            | 2017           | 2018            | 2017           |
| <b>Net income (loss) before tax effects</b>                                    | <b>296,716</b>  | <b>104,000</b> | <b>357,268</b>  | <b>133,937</b> |
| Statutory tax rate                                                             | 34%             | 34%            | 34%             | 34%            |
| Expenses at statutory rate                                                     | (100,883)       | (35,360)       | (121,471)       | (45,539)       |
| <b>Tax effect of permanent (additions) exclusions:</b>                         |                 |                |                 |                |
| Share of results of subsidiaries                                               | (247)           | (239)          | (247)           | (239)          |
| Depreciation of non-operating assets                                           | 52,639          | 44,382         | -               | -              |
| Interests on capital                                                           | 35,148          | 35,873         | 35,148          | 35,873         |
| Additional income tax (Services Companies – Mexico)                            | 4,665           | 9,671          | 4,665           | 9,671          |
| Effect of correction of fixed assets                                           | -               | -              | (14,493)        | (7,679)        |
| Reintegra – benefit                                                            | -               | -              | (2,563)         | (369)          |
| Finance income from monetary assets                                            | -               | -              | 2,496           | 6,440          |
| Additional income tax (Subsidiaries)                                           | -               | -              | 1,345           | 332            |
| Other permanent (additions) exclusions                                         | (12,511)        | (554)          | -               | -              |
| Effects of different rates in subsidiaries                                     | (3,806)         | (4,372)        | 3,249           | 10,668         |
| <b>Tax effects recorded in the statement of income before exchange effects</b> | <b>(24,995)</b> | <b>49,401</b>  | <b>(91,871)</b> | <b>9,158</b>   |
| <b>Effective rate of income tax before exchange effects</b>                    | <b>8%</b>       | <b>-48%</b>    | <b>26%</b>      | <b>-7%</b>     |
| Effect of functional currency on tax base (a)                                  | -               | -              | 6,324           | 10,306         |
| <b>Tax effects recorded in the statement of income</b>                         | <b>(24,995)</b> | <b>49,401</b>  | <b>(85,547)</b> | <b>19,464</b>  |
| <b>Effective rate of income tax</b>                                            | <b>8%</b>       | <b>-48%</b>    | <b>24%</b>      | <b>-15%</b>    |

### a) Effect of the functional currency on tax base

The tax bases of the assets and liabilities of the companies located in Mexico, where the functional currency is the U.S. dollar, are maintained at their historical amounts, in Mexican pesos. Because the changes in the foreign exchange rates impact the tax bases, the foreign exchange effects are recognized as "Deferred tax income and/or expenses".

### b) Composition of the tax effects recorded in the statement of income:

|                                                        | Parent company  |               | Consolidated    |               |
|--------------------------------------------------------|-----------------|---------------|-----------------|---------------|
|                                                        | 2018            | 2017          | 2018            | 2017          |
| <b>Tax effects recorded in the statement of income</b> |                 |               |                 |               |
| Tax effects recorded in the statement of income        | (13,768)        | 36,261        | (85,420)        | (15,920)      |
| Current income tax and social contribution             | (11,227)        | 13,140        | (127)           | 35,384        |
| <b>Deferred income tax and social contribution</b>     | <b>(24,995)</b> | <b>49,401</b> | <b>(85,547)</b> | <b>19,464</b> |

## 25. EARNINGS PER SHARE

### a) Basic:

Basic earnings per share is calculated by dividing profit or loss attributable to ordinary equity holders by the weighted average number of ordinary shares outstanding during the period.

|                                                        | 2018           | 2017           |
|--------------------------------------------------------|----------------|----------------|
| Profit attributable to the stockholders of the Company | 271,721        | 153,401        |
| Outstanding shares                                     | 144,177,500    | 144,177,500    |
| <b>Basic earnings per share - R\$</b>                  | <b>1.88463</b> | <b>1.06397</b> |

### b) Diluted:

Diluted earnings per share is measured by the weighted average number of ordinary shares outstanding, with the addition of the weighted average number of ordinary shares that would be issued on conversion of all the dilutive potential ordinary shares. The Company issue a potential convertible stock option plan.

The number of ordinary shares that would be issued is determined from fair value, based on market price.

|                                                        | 2018           | 2017           |
|--------------------------------------------------------|----------------|----------------|
| Profit attributable to the stockholders of the Company | 271,721        | 153,401        |
| Outstanding shares                                     | 144,622,019    | 144,771,368    |
| <b>Diluted earnings per share - R\$</b>                | <b>1.87884</b> | <b>1.05961</b> |

## 26. SEGMENT REPORTING

The Company discloses information by operating segment based on the information reported to management and utilized in decision-making, in order to allocate funds to the segments and to assess their performance, as described below:

**Transportation, infrastructure & agriculture** - manufacture, to order, of cast and machined products, with significant technological content, such as powertrain (blocks and cylinder heads), brake, transmission, steering, axle and suspension components for global manufacturers of engines, passenger vehicles, commercial vehicles (trucks, buses, etc.), construction machines, tractors, agricultural machines and power generators.

**Hydraulics** - manufacture of flexible iron connections for the construction industry, cast-iron shapes for general use and iron and steel grits for the marble and granite processing industry (discontinued operation since august 2017).

The following is the information on each reported segment:

### a) Reconciliation of revenues, costs and expenses and profit (loss)

| Consolidated                                                                                       | Transportation, infrastructure<br>& agriculture |                | Hydraulics   |              | Total          |                |
|----------------------------------------------------------------------------------------------------|-------------------------------------------------|----------------|--------------|--------------|----------------|----------------|
|                                                                                                    | 2018                                            | 2017           | 2018         | 2017         | 2018           | 2017           |
| Net revenue (Note 20)                                                                              | 4,596,221                                       | 3,499,328      | 231,995      | 206,823      | 4,828,216      | 3,706,151      |
| Costs and expenses, except depreciation (Note 21)                                                  | (3,935,951)                                     | (2,992,320)    | (215,200)    | (192,682)    | (4,151,151)    | (3,185,002)    |
| Other operating expenses, net, except amortization of intangible assets and depreciation (Note 23) | (58,303)                                        | (79,785)       | (3,133)      | (2,259)      | (61,436)       | (82,044)       |
| Depreciation and amortization                                                                      | (271,150)                                       | (247,319)      | (8,227)      | (9,942)      | (279,377)      | (257,261)      |
| Impairment (note 14)                                                                               | 33,631                                          | 8,301          | -            | -            | 33,631         | 8,301          |
| <b>Profit before finance results</b>                                                               | <b>364,448</b>                                  | <b>188,205</b> | <b>5,435</b> | <b>1,940</b> | <b>369,883</b> | <b>190,145</b> |
| Finance results (Note 22)                                                                          |                                                 |                |              |              | (12,615)       | (56,208)       |
| <b>Profit before taxation</b>                                                                      |                                                 |                |              |              | <b>357,268</b> | <b>133,937</b> |
| Income tax and social contribution (Note 24)                                                       |                                                 |                |              |              | (85,547)       | 19,464         |
| <b>Profit for the period</b>                                                                       |                                                 |                |              |              | <b>271,721</b> | <b>153,401</b> |

### b) Reconciliation of costs and expenses by segment

| Consolidated                          | Transportation, infrastructure<br>& agriculture |                    | Hydraulics       |                  | Total              |                    |
|---------------------------------------|-------------------------------------------------|--------------------|------------------|------------------|--------------------|--------------------|
|                                       | 2018                                            | 2017               | 2018             | 2017             | 2018               | 2017               |
| Raw and processing materials          | (2,184,200)                                     | (1,505,287)        | (101,461)        | (85,147)         | (2,285,661)        | (1,590,434)        |
| Maintenance and consumption materials | (370,385)                                       | (350,841)          | (14,056)         | (15,160)         | (384,441)          | (366,001)          |
| Salaries and payroll taxes            | (871,007)                                       | (688,256)          | (58,696)         | (48,588)         | (929,703)          | (736,844)          |
| Social benefits                       | (90,196)                                        | (98,002)           | (1,971)          | (7,188)          | (92,167)           | (105,190)          |
| Electricity                           | (204,456)                                       | (194,062)          | (16,348)         | (16,322)         | (220,804)          | (210,384)          |
| Depreciation                          | (221,356)                                       | (205,456)          | (8,227)          | (9,942)          | (229,583)          | (215,398)          |
| Freight and commissions on sales      | (117,961)                                       | (91,381)           | (17,067)         | (16,491)         | (135,028)          | (107,872)          |
| Management fees                       | (9,881)                                         | (10,584)           | (904)            | (1,040)          | (10,785)           | (11,624)           |
| Other costs                           | (87,865)                                        | (53,907)           | (4,697)          | (2,746)          | (92,562)           | (56,653)           |
|                                       | <b>(4,157,307)</b>                              | <b>(3,197,776)</b> | <b>(223,427)</b> | <b>(202,624)</b> | <b>(4,380,734)</b> | <b>(3,400,400)</b> |

All amounts in thousands of reais unless otherwise stated

### c) Reconciliation of assets and liabilities

| Consolidated                            | Tranportation, infrastructure<br>& agriculture |                  | Hydraulics     |                | Total            |                  |
|-----------------------------------------|------------------------------------------------|------------------|----------------|----------------|------------------|------------------|
|                                         | 2018                                           | 2017             | 2018           | 2017           | 2018             | 2017             |
| <b>ASSETS</b>                           |                                                |                  |                |                |                  |                  |
| Trade account receivables (Note 4)      | 649,134                                        | 524,707          | 39,361         | 48,386         | 688,495          | 573,093          |
| Inventories (Note 5)                    | 463,688                                        | 363,814          | 59,935         | 55,678         | 523,623          | 419,492          |
| Tooling                                 | 162,445                                        | 102,000          | -              | -              | 162,445          | 102,000          |
| Notes and other receivables             | 49,371                                         | 41,016           | 2,754          | 3,270          | 52,125           | 44,286           |
| Property, plant and equipment (Note 13) | 1,499,084                                      | 1,472,024        | 58,208         | 37,212         | 1,557,292        | 1,509,236        |
| Intangible assets (Note 14)             | 304,837                                        | 296,141          | -              | -              | 304,837          | 296,141          |
| Other assets not allocated              | -                                              | -                | -              | -              | 1,619,374        | 1,664,908        |
| <b>Total assets</b>                     | <b>3,128,559</b>                               | <b>2,799,702</b> | <b>160,258</b> | <b>144,546</b> | <b>4,908,191</b> | <b>4,609,156</b> |

| Consolidated                                                   | Tranportation, infrastructure<br>& agriculture |                | Hydraulics    |               | Total            |                  |
|----------------------------------------------------------------|------------------------------------------------|----------------|---------------|---------------|------------------|------------------|
|                                                                | 2018                                           | 2017           | 2018          | 2017          | 2018             | 2017             |
| <b>LIABILITIES</b>                                             |                                                |                |               |               |                  |                  |
| Trade accounts payables                                        | 591,463                                        | 433,705        | 29,829        | 28,760        | 621,292          | 462,465          |
| Income taxes payable                                           | 29,703                                         | 23,634         | 309           | 296           | 30,012           | 23,930           |
| Salaries, social security charges and profit sharing (Note 16) | 153,952                                        | 128,854        | 10,007        | 8,881         | 163,959          | 137,735          |
| Advances from customers                                        | 146,685                                        | 54,899         | 13,039        | 9,098         | 159,724          | 63,997           |
| Notes and other payables                                       | 71,013                                         | 64,298         | 6,513         | 6,002         | 77,526           | 70,300           |
| Deferred tax on intangible assets (Note 8)                     | 61,760                                         | 57,346         | -             | -             | 61,760           | 57,346           |
| Income and social contribution tax                             | 8,992                                          | 7,318          | -             | -             | 8,992            | 7,318            |
| Other liabilities not allocated                                | -                                              | -              | -             | -             | 1,584,963        | 1,802,747        |
| Equity (Note 19)                                               | -                                              | -              | -             | -             | 2,199,963        | 1,983,318        |
| <b>Total liabilities and equity</b>                            | <b>1,063,568</b>                               | <b>770,054</b> | <b>59,697</b> | <b>53,037</b> | <b>4,908,191</b> | <b>4,609,156</b> |

Segment specific assets and liabilities are allocated directly to each segment, and criteria relating to applicability and origin are used for common assets and liabilities. The Company does not allocate cash and cash equivalents, recoverable and deferred taxes, judicial and other deposits, and investments in companies to the reporting segments, as they are not directly related to the operations. For the same reason, borrowing, dividends, provisions, deferred taxes and other long-term liabilities are also not allocated to the segments.

### d) Major customers accounting for over 10% of the Company's total revenues

The Company has a diversified portfolio of local and foreign customers. The transportation, infrastructure & agriculture segment has customers that individually account for more than 10% of consolidated revenues, as follows:

| Consolidated                                           | Revenue          |             | %                |             |
|--------------------------------------------------------|------------------|-------------|------------------|-------------|
|                                                        | Dec/18           | %           | Dec/18           | %           |
| <b>Tranportation, infrastructure &amp; agriculture</b> | <b>4,596,221</b> | <b>95.3</b> | <b>3,499,328</b> | <b>94.4</b> |
| Customer A                                             | 934,656          | 19.4        | 795,723          | 21.5        |
| Customer B                                             | 776,276          | 16.1        | 658,241          | 17.8        |
| Customer C                                             | 491,524          | 10.2        | 363,997          | 9.8         |
| Other customers                                        | 2,393,765        | 49.6        | 1,681,367        | 45.4        |
| <b>Hydraulics</b>                                      | <b>231,995</b>   | <b>4.8</b>  | <b>206,823</b>   | <b>5.6</b>  |
| <b>Total Revenue</b>                                   | <b>4,828,216</b> | <b>100</b>  | <b>3,706,151</b> | <b>100</b>  |

The sales in the Hydraulics segment are diversified.

### e) Information on the countries from which the Company derives revenue

The revenue derived from customers in Brazil and from customers in each foreign country, and their respective shares in the Company's total revenue for the year, are as follow:

| Consolidated                      |                  |              |                  |              |
|-----------------------------------|------------------|--------------|------------------|--------------|
|                                   | Dec/18           | %            | Dec/17           | %            |
| <b>North America</b>              | <b>3,078,749</b> | <b>63.7</b>  | <b>2,329,124</b> | <b>62.9</b>  |
| United States                     | 1,569,619        | 32.5         | 1,214,650        | 32.8         |
| Mexico                            | 1,460,137        | 30.2         | 1,062,175        | 28.7         |
| Canada                            | 48,993           | 1.0          | 52,299           | 1.4          |
| <b>South and Central Americas</b> | <b>866,779</b>   | <b>18.0</b>  | <b>683,621</b>   | <b>18.4</b>  |
| Brazil - head office              | 829,573          | 17.2         | 653,451          | 17.6         |
| Other countries                   | 37,206           | 0.8          | 30,170           | 0.8          |
| <b>Europe</b>                     | <b>599,790</b>   | <b>12.4</b>  | <b>423,829</b>   | <b>11.4</b>  |
| United Kingdom                    | 273,919          | 5.7          | 223,727          | 6.0          |
| Hungary                           | 77,120           | 1.6          | 75,321           | 2.0          |
| Italy                             | 61,111           | 1.3          | 30,098           | 0.8          |
| Netherlands                       | 50,659           | 1.0          | 29,602           | 0.8          |
| Spain                             | 44,287           | 0.9          | -                | -            |
| Spain                             | 40,193           | 0.8          | 20,767           | 0.6          |
| Germany                           | 20,052           | 0.4          | 26,965           | 0.7          |
| Other countries                   | 32,449           | 0.7          | 17,349           | 0.5          |
| <b>Asia, Africa and Oceania</b>   | <b>282,898</b>   | <b>5.9</b>   | <b>269,577</b>   | <b>7.3</b>   |
| South Africa                      | 103,593          | 2.1          | 93,354           | 2.5          |
| Thailand                          | 66,876           | 1.4          | 57,926           | 1.6          |
| Japan                             | 58,169           | 1.2          | 44,116           | 1.2          |
| China                             | 34,138           | 0.7          | 55,825           | 1.5          |
| Other countries                   | 20,122           | 0.5          | 18,356           | 0.5          |
| <b>Total</b>                      | <b>4,828,216</b> | <b>100.0</b> | <b>3,706,151</b> | <b>100.0</b> |

#### f) Non-Current Assets

Noncurrent assets in this case correspond to investments in equity instruments, investment properties, property, plant and equipment and intangible assets and their participation in the Company's noncurrent assets for the year are as follows:

| Non-Circulant Assets | 2018             | 2017             |
|----------------------|------------------|------------------|
| Brazil - head office | 1,048,466        | 1,130,002        |
| Mexico               | 828,266          | 688,597          |
| Other countries(*)   | 63               | 84               |
| <b>Total</b>         | <b>1,876,795</b> | <b>1,818,683</b> |

(\*) United States and Germany

## 27. NON-CASH TRANSACTIONS

The Company carried out investment transactions that did not affect cash and which, therefore, were not recorded in the statement of cash flows. These transactions totaled R\$22,576 at December 31, 2018 (R\$8,200 at December 31, 2017).

## 28. INSURANCE COVERAGE

The Company contracts insurance taking into account the nature and level of risks involved, according to the guidance of its insurance advisors, and at amounts considered adequate by management.

The sufficiency of insurance coverage is the responsibility of the Company's Management, which considers it adequate to cover eventual claims.

The covered risks include the following items and corresponding amounts:

|                                                 | Dec/18    | Dec/17    |
|-------------------------------------------------|-----------|-----------|
| Buildings                                       | 476,681   | 404,650   |
| Machinery and equipment, furniture and fittings | 2,983,952 | 2,820,195 |
| Inventories                                     | 339,423   | 259,547   |
| Loss of profit                                  | 822,441   | 681,400   |
| General civil liability                         | 181,244   | 164,240   |
| Civil liability - management                    | 63,875    | 63,308    |

## 29. COMMITMENTS

The Company has commitments for the acquisition of long-lived assets, that is, expenditure contracted at the reporting date but not yet incurred, in the consolidated amount of R\$50,173 (R\$20,889 at December 31, 2017), which will be settled with its own resources.

## 30. FINANCIAL INSTRUMENTS

|                                                                   | Note | Parent company   |                  | Consolidated     |                  |
|-------------------------------------------------------------------|------|------------------|------------------|------------------|------------------|
|                                                                   |      | 2018             | 2017             | 2018             | 2017             |
| <b>Loans and receivables</b>                                      |      | <b>724,466</b>   | <b>1,030,241</b> | <b>1,495,524</b> | <b>1,533,981</b> |
| Cash and cash equivalents                                         | 3    | 328,350          | 667,827          | 713,733          | 865,368          |
| Trade account receivables                                         | 4    | 329,043          | 280,213          | 688,495          | 573,093          |
| Notes and other financial assets                                  |      | 67,073           | 82,201           | 93,296           | 95,520           |
| <i>Effect on the results</i>                                      |      | <i>19,808</i>    | <i>69,305</i>    | <i>20,473</i>    | <i>68,156</i>    |
| <b>Financial assets at fair value through profit or loss</b>      |      | <b>179,544</b>   | <b>104,707</b>   | <b>190,089</b>   | <b>110,027</b>   |
| Financial investments                                             |      | -                | 1,077            | -                | 1,077            |
| Credits - Eletrobrás                                              |      | 170,974          | 102,170          | 170,974          | 102,170          |
| Investments in equity instruments                                 |      | 1,789            | 1,442            | 8,303            | 6,762            |
| Derivative financial instruments                                  |      | 6,781            | 18               | 10,812           | 18               |
| <i>Effect on the results</i>                                      |      | <i>45,277</i>    | <i>(203)</i>     | <i>45,277</i>    | <i>(203)</i>     |
| <b>Financial liabilities at amortized cost</b>                    |      | <b>1,865,734</b> | <b>2,036,013</b> | <b>2,148,158</b> | <b>2,211,816</b> |
| Trade accounts payables                                           |      | 260,607          | 216,687          | 621,292          | 462,465          |
| Loans and financing                                               | 15   | 1,413,679        | 1,628,339        | 1,406,923        | 1,621,556        |
| Dividends and interest on capital                                 |      | 37,624           | 50,076           | 37,624           | 50,076           |
| Notes payable and other financial liabilities                     |      | 153,824          | 140,911          | 82,319           | 77,719           |
| <i>Effect on the results</i>                                      |      | <i>(97,946)</i>  | <i>(130,739)</i> | <i>(95,991)</i>  | <i>(129,203)</i> |
| <b>Financial liabilities at fair value through profit or loss</b> |      | <b>-</b>         | <b>404</b>       | <b>-</b>         | <b>2,457</b>     |
| Derivative financial instruments                                  | 25   | -                | 404              | -                | 2,457            |
| <i>Effect on the results</i>                                      |      | <i>-</i>         | <i>-</i>         | <i>-</i>         | <i>-</i>         |

(\*) Includes the provision for impaired receivables

In accordance of the IFRS 9 since January 1, 2018 the Company started on to recognize the cash and cash equivalents, trade accounts receivables and notes and other financial assets as an Amortized Cost. Previously it was considered as a Loans and Receivables.

## 31. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGE OF NET INVESTMENT ABROAD

### a) Derivative financial instruments

In order to minimize the impact of exchange rate on cash flow and financial results, the Company contracted and remains contracting derivative financial instruments since July 1, 2016. The financial instrument used by the Company in these operations were (i) ZCC - zero-cost collar, which consists of purchasing a "PUT" option and the sale of a "CALL" option. Those operations have the same notional value, same counterparty, same maturity and there is no net premium, (ii) sale off NDF non deliverable forward, which consists of the future sale of currency at a pre-defined rate and, (iii) purchasing the sale option "PUT". The fair value of this instrument is determined by observable market pricing model (through market information providers) and widely used by market participants to measure similar instruments.

## i. Parent company

At December 31, 2018, the Company derivative financial instruments in the zero-cost collar type totaled the amount of US\$136,400, due until December 23, 2019. Which were made purchasing "PUT" with an average weighted price of exercise of R\$3.8147 and sales "CALL" with an average weighted price of exercise of R\$4.3700.

During the year of 2018, the Company recognized in finance results a net loss of R\$5,462, which is the result of a loss related to adjustments from the settlement of contracts in the period R\$12,629 and a gain due to market of these instruments R\$7.167.

## ii. Subsidiaries

In 2017, the Company contracted derivative financial instruments in their Mexican subsidiaries, due to their exposure to the Mexican Pesos. At December 31, 2018, the Subsidiaries derivative financial instruments amounting US\$74,500. The financial instruments due December 04, 2019 in operations of zero-cost collar which were made purchasing the sale option "PUT" with an average weighted price of exercise of MXN19.4864 and sales "CALL" with an average weighted price of exercise of MXN23.1444.

In the exercise, the Mexican subsidiaries recognized in their finance results a net gain of R\$4,951, which is the result of a loss related to adjustments from the settlement of contracts in the period R\$1,039, gain due to the mark to market of these instruments R\$5,924 and gain from the exchange variation of this due to market R\$66.

The financial derivative instruments net position is presented as follow:

|                                              | Parent company |              | Consolidated  |                |
|----------------------------------------------|----------------|--------------|---------------|----------------|
|                                              | Dec/18         | Dec/17       | Dec/18        | Dec/17         |
| <b>Current liabilities</b>                   |                |              |               |                |
| <i>Financial derivative instruments</i>      | -              | (404)        | (160)         | (2,457)        |
| <b>Current assets</b>                        |                |              |               |                |
| Financial derivative instruments             | 6,781          | 18           | 10,812        | 18             |
| <b>Financial derivative instruments, net</b> | <b>6,781</b>   | <b>(386)</b> | <b>10,652</b> | <b>(2,439)</b> |

## b) Hedges of net investments abroad

With the objective of mitigating the effects of foreign exchange volatility on the results, the Company started adopting the hedge of net investment abroad (net investment hedge) on January 10, 2014.

On July 22, 2014, the Company designated the export prepayment contract - Tupy Overseas S.A. (Note 15), amounting to US\$349,000, equivalent to R\$772,302, as a hedging instrument for the investments in subsidiaries in Mexico.

Consequently, at December 31, 2018, the Company has export prepayment contracts amounting to US\$349,000, equivalent to R\$1,352,305, designated as hedging instruments for the investments in subsidiaries in Mexico, Tupy México Saltillo, S.A. de C.V. and Technocast, S.A. de C.V., whose functional

currency is the U.S. dollar and whose net assets amount to US\$378,815, equivalent to R\$1,467,833, representing a 92.1% effectiveness.

In the year ended December 31, 2018, the Company recognized a loss of R\$197,810 in "Carrying value adjustments", in equity. This loss results from the foreign currency translation of the export prepayment contracts designated as hedging instruments.

## 32. FINANCIAL RISK MANAGEMENT

The Company has a financial management policy and internal procedures monitored by Risk and internal controlling area, which determines practices to identify, monitoring and controlling the exposure to financial risk.

### 32.1 Credit risk

Credit risk arises from cash and cash equivalents, derivative financial instruments and financial investments, as well from credit exposure to customers, including outstanding trade receivables.

The Company sets exposure limits for each customer to limit the credit risk on trade receivables and risks are managed according to specific credit rating criteria, which include an analysis of customers in based on their payment ability, indebtedness level, market behavior and history with the Company. Furthermore, the Company carries out quantitative and qualitative analyses of its portfolio of trade receivables in order to determine the provision for expecting losses on receivables. As at December 31, 2018, estimated losses on trade receivables amounted to R\$1,941 (R\$2,359 as at December 31, 2017), representing 0.3% of the consolidated balance of outstanding receivables at that date (0.4% as at December 31, 2017).

The Company does not hold any credit guarantee to cover credit risks related to its financial assets.

### Credit quality of financial assets

The credit quality of financial assets is assessed by reference to external credit ratings (if available) or based on historical information about counterparty default rates:

|                                                      | Parent company |                  | Consolidated     |                  |
|------------------------------------------------------|----------------|------------------|------------------|------------------|
|                                                      | 2018           | 2017             | 2018             | 2017             |
| <b>Counterparties with external credit ratings*</b>  |                |                  |                  |                  |
| <b>Cash and cash equivalents</b>                     | <b>328,350</b> | <b>667,827</b>   | <b>713,733</b>   | <b>865,368</b>   |
| AAA                                                  | 41,217         | -                | 50,233           | 2,109            |
| AA+ / AA / AA-                                       | 243,938        | 562,736          | 445,010          | 693,159          |
| A+ / A / A-                                          | 43,195         | 91,762           | 218,400          | 144,865          |
| Outros                                               | -              | 13,329           | 90               | 25,235           |
| <b>Financial investments</b>                         | <b>-</b>       | <b>1,077</b>     | <b>-</b>         | <b>1,077</b>     |
| AAA                                                  | -              | 1,077            | -                | 1,077            |
| <b>Derivative financial</b>                          | <b>6,781</b>   | <b>18</b>        | <b>10,812</b>    | <b>18</b>        |
| AA+ / AA / AA-                                       | 6,781          | 18               | 10,812           | 18               |
| <b>Credits - Eletrobrás</b>                          | <b>170,974</b> | <b>102,170</b>   | <b>170,974</b>   | <b>102,170</b>   |
| A-                                                   | 170,974        | 102,170          | 170,974          | 102,170          |
| <b>Counterparties without external credit rating</b> |                |                  |                  |                  |
| <b>Trade receivables</b>                             | <b>329,043</b> | <b>280,213</b>   | <b>688,495</b>   | <b>573,093</b>   |
| Low risk                                             | 319,585        | 266,882          | 672,140          | 554,555          |
| Moderate risk                                        | 9,160          | 12,572           | 16,057           | 12,572           |
| High risk                                            | 298            | 759              | 298              | 5,966            |
| <b>Other financial assets</b>                        | <b>68,862</b>  | <b>83,643</b>    | <b>101,599</b>   | <b>102,282</b>   |
| <b>Total</b>                                         | <b>897,229</b> | <b>1,134,930</b> | <b>1,674,801</b> | <b>1,643,990</b> |

(\*) The Company considers, for the classification of risk, the lowest rating between the rating agencies.

The risk assessment of trade receivables is as follows:

- Low risk - automotive segment customers, except those customers with a history of losses.
- Moderate risk - hydraulics segment customers, except those who already have a history of losses.
- High risk - customers with provisioned balances and historical losses.

The other financial assets held by the Company are considered of high quality and do not present indications of losses.

### 32.2 Liquidity risk

Liquidity risk is the risk that the Company will have difficulty complying with its obligations associated with financial liabilities that are to be settled in cash or other financial assets. The Company's approach to managing this risk is the maintenance of a minimum cash.

The Company is a counterparty to some financial agreements, which require the maintenance of financial ratios, or compliance with other specific clauses. The main operation, the Senior Unsecured Notes issued in 2014 require the Company to meet the Financial Debt / EBITDA financial index, if not complied with, may impose restrictions, which are detailed in note 15.

Conform is determined in the financial management policy, which aims at ensuring that the Company has sufficient liquidity to settle its obligations without incurring losses or affecting its operations. This minimum cash amount corresponds to the projection of two-month of payments to trade accounts, salaries and social security, deducted 50% discount, plus the balance of the short-term borrowing, net of derivative instruments. Moreover, the Company manages its investment portfolio using criteria for concentration in financial institutions, in addition to global and local ratings.

The contractual maturities of financial liabilities are as follow:

| Consolidated                                | Contractual cash flow |                |               |                |                  |                  |
|---------------------------------------------|-----------------------|----------------|---------------|----------------|------------------|------------------|
|                                             | 6 months or less      | 6 to 12 months | 1 to 2 years  | 2 to 5 years   | Over 5 years     | Total flow       |
| <b>FINANCIAL LIABILITIES</b>                |                       |                |               |                |                  |                  |
| Borrowings                                  | 47,801                | 47,730         | 95,249        | 278,420        | 1,446,628        | 1,915,828        |
| Financial derivative instruments            | 160                   | -              | -             | -              | -                | 160              |
| Trade payables and notes and other payables | 698,818               | -              | -             | -              | -                | 698,818          |
| Dividends payable                           | 37,624                | -              | -             | -              | -                | 37,624           |
|                                             | <b>784,403</b>        | <b>47,730</b>  | <b>95,249</b> | <b>278,420</b> | <b>1,446,628</b> | <b>2,652,430</b> |

The Company does not expect that the cash outflows, included in its maturity analyses, will occur significantly sooner or at amounts which are significantly different. Furthermore, the Company generates sufficient cash to cover future payment obligations.

### 32.3 Market risk

The Brazilian Federal Government's economic policies can have important effects on Brazilian companies, including on Tupy, as well as market conditions and the prices of securities of Brazilian companies. Considering the nature of the Company's business and operations, the main market risk factors to which it is exposed are related to: Exchange Rate, Interest Rate, Inflation in the main inputs, Credit Risk and Liquidity Risk. The objective of market risk management is to maintain exposure to market risks within acceptable levels, while optimizing returns.

### Interest rate risk

This risk refers to the Company's financial investments and borrowing. The financial instruments with floating rates expose the Company to cash flow variation risk, whereas the financial instruments with fixed rates expose the Company to fair value risk. The Company uses derivative financial instruments, as follow:

| Consolidated                     |      |                  |                    |
|----------------------------------|------|------------------|--------------------|
|                                  | Note | Dec/18           | Dec/17             |
| <b>Floating-rate instruments</b> |      | <b>282,751</b>   | <b>526,579</b>     |
| Financial assets                 |      | 282,751          | 639,656            |
| Financial liabilities            | 15   | -                | (113,077)          |
| <b>Fixed-rate instruments</b>    |      | <b>(978,396)</b> | <b>(1,189,429)</b> |
| Financial assets                 |      | 428,527          | 221,728            |
| Financial liabilities            | 15   | (1,406,923)      | (1,411,157)        |

### Sensitivity analysis of variations in floating interest rates

The Company has financial investments exposed to the CDI (Interbank Deposit Certificate) rate variation. The fluctuations in interest rates may affect the Company's future results. Presented below are the impacts that would have been generated by changes in interest rates to which the Company is exposed.

| Interest rate risk        |                                     |             |                                       |             |             |             | Consolidated |
|---------------------------|-------------------------------------|-------------|---------------------------------------|-------------|-------------|-------------|--------------|
| Floating rate instruments | Risk                                | Disclosed   | Scenarios - Normative Instruction 475 |             |             |             | -50%         |
|                           |                                     |             | Probable                              | +25%        | +50%        | -25%        |              |
| In Brazilian reais        |                                     |             |                                       |             |             |             |              |
| <b>Investments</b>        | <b>Interest rate (CDI - % p.a.)</b> | <b>6.40</b> | <b>6.40</b>                           | <b>8.00</b> | <b>9.60</b> | <b>4.80</b> | <b>3.20</b>  |
| Financial assets          |                                     | 282,751     | 282,751                               | 282,751     | 282,751     | 282,751     | 282,751      |
| Potential impact          |                                     | -           | -                                     | 4,252       | 8,504       | (4,317)     | (8,767)      |

### Currency risk

The Company is exposed to currency risk on sales, purchases and borrowings denominated in currencies other than the Company's functional currency, the Brazilian Real. Transactions carried out in foreign currency are mainly denominated in U.S. dollar.

In addition, considering the importance of the Company's operations in Mexico, the devaluation of the Mexican Peso has an impact on the income tax. Since the functional currency of the subsidiaries in Mexico is the U.S. Dollars (US\$). Net exchange variation from monetary assets and liabilities has significant impact on the basis for calculating this tax. Whose effect in fiscal year 2018 was R\$6,324 in the amount of tax.

The Company manages its exposure to foreign exchange rates through a combination of debts, financial investments, accounts receivable and export revenues in foreign currency, hedges of the net investments abroad. The Company's exposure to foreign currency risk, considering the subsidiaries that use the Real (R\$) as their functional currency, is as follows:

| Parent company                       |      |                  |                  |
|--------------------------------------|------|------------------|------------------|
| Net exposure impacting profit        | Note | 2018             | 2017             |
| <b>Assets</b>                        |      | <b>273,729</b>   | <b>215,544</b>   |
| Cash and cash equivalents abroad     | 3    | 43,405           | 24,534           |
| Customers in the foreign market      | 4    | 230,324          | 191,010          |
| <b>Liabilities</b>                   |      | <b>(188,722)</b> | <b>(172,013)</b> |
| Borrowings in foreign currency       | 15   | (1,395,346)      | (1,196,405)      |
| Hedge of net investment abroad       | 31   | 1,352,305        | 1,154,492        |
| Other amounts                        |      | (145,681)        | (130,100)        |
| <b>Net exposure impacting profit</b> |      |                  |                  |
| In thousands of R\$                  |      | 85,007           | 43,531           |
| In thousands of US\$                 |      | 21,938           | 13,159           |

The exposure of subsidiaries that use a functional currency U.S. Dollars (US\$, is demonstrated below:

| Subsidiárias                         |                  |                  |                  |
|--------------------------------------|------------------|------------------|------------------|
| Net exposure impacting profit        | Nota explicativa | 2018             | 2017             |
| <b>Assets</b>                        |                  |                  |                  |
| Cash and cash equivalents abroad     |                  | 8,450            | 14,042           |
| Customers in the foreign market      |                  | 4,744            | 775              |
| Tax return                           |                  | 48,933           | 58,438           |
| <b>Liabilities</b>                   |                  | <b>(214,505)</b> | <b>(159,179)</b> |
| Trade accounts payables              |                  | (85,319)         | (65,163)         |
| Other amounts                        |                  | (129,187)        | (94,017)         |
| <b>Net exposure impacting profit</b> |                  |                  |                  |
| In thousands of R\$                  |                  | (152,377)        | (85,924)         |
| In thousands of MXP                  |                  | (794,460)        | (510,845)        |

### Sensitivity analysis of foreign exchange exposure

This analysis is based on the foreign exchange rate fluctuation, pursuant to CVM Normative Instruction 475, in which the risk variables are evaluated with a 25% and 50% fluctuation compared to the probable scenario estimated by the Company. This analysis assumes that all other variables, especially the interest rates, will remain constant.

| Consolidated                           | Scenarios - Normative Instruction 475 |                |               |               |                 |                 |
|----------------------------------------|---------------------------------------|----------------|---------------|---------------|-----------------|-----------------|
|                                        | Disclosed                             | Probable       | +25%          | +50%          | -25%            | -50%            |
| <b>U.S. Dollar rate</b>                | <b>3.8748</b>                         | <b>3.7500</b>  | <b>4.69</b>   | <b>5.63</b>   | <b>2.81</b>     | <b>1.88</b>     |
| Asset position                         | 273,729                               | 264,913        | 331,317       | 397,722       | 198,508         | 132,810         |
| Liability position                     | (188,722)                             | (182,643)      | (228,426)     | (274,209)     | (136,861)       | (91,565)        |
| Net exposure (R\$ thousand)            | 85,007                                | 82,270         | 102,891       | 123,513       | 61,647          | 41,245          |
| Net exposure (US\$ thousand)           | 21,938                                | 21,939         | 21,938        | 21,938        | 21,938          | 21,939          |
| <b>Potential impact (R\$ thousand)</b> | <b>-</b>                              | <b>(2,737)</b> | <b>17,884</b> | <b>38,506</b> | <b>(23,360)</b> | <b>(43,762)</b> |

### Price risk

This risk relates to the possibility of fluctuations in the market prices of the inputs used in the manufacturing process, especially scrap, pig iron, metal alloys, coke and electricity. These price fluctuations could have an impact on the Company's costs. The Company monitors these prices, in order to pass on to customers any changes in its input prices.

### 32.4 Operating risk

This risk arises from all of the Company's operations and can cause direct or indirect losses associated with a variety of factors, such as processes, personnel, technology, infrastructure and external factors.

The Company's objective is to manage the operating risk to avoid losses and damages to its reputation, and to seek cost efficiencies.

The primary responsibility for developing and implementing operating risk controls lies with a centralized area of internal controls reporting to senior management.

### 32.5 Capital management

The Company's objectives when managing capital are to safeguard its ability to continue as a going concern in order to provide returns for its stockholders and benefits for other stakeholders and to maintain an optimal capital structure to reduce the cost of capital.

In order to maintain or adjust the capital structure, management can make (or can propose to the stockholders, when their approval is required) adjustments to the amount of dividends paid to stockholders, return capital to stockholders, issue new shares or sell assets to reduce, for example, debt.

The Company's management monitors the relationship between the Company's own capital (equity) and third-party capital that the Company utilizes to finance its operations. To mitigate liquidity risks and

optimize the average cost of capital, the Company monitors its compliance with financial ratios required under borrowing agreements.

The relationship between own capital versus third-party capital, at the end of each year, was as follows:

| <b>Consolidated</b>                                 |                  |                  |
|-----------------------------------------------------|------------------|------------------|
|                                                     | <b>2018</b>      | <b>2017</b>      |
| <b>Own capital</b>                                  | <b>2,199,963</b> | <b>1,983,318</b> |
| Equity                                              | 2,199,963        | 1,983,318        |
| <b>Third party capital</b>                          | <b>1,994,495</b> | <b>1,760,470</b> |
| Total current and non-current liabilities           | 2,708,228        | 2,625,838        |
| Cash and cash equivalents                           | (713,733)        | (865,368)        |
| <b>Own capital versus third-party capital ratio</b> | <b>1.10</b>      | <b>1.13</b>      |

### 32.6 Fair value

The carrying values of cash and cash equivalents and trade receivables and payables, less impairment provisions in the case of trade receivables, are assumed to approximate their fair values.

All financial instruments classified as financial assets and financial liabilities at fair value through profit or loss (Note 31) and the fair value of the borrowing disclosed in Note 16 are calculated by discounting the future contractual cash flow at the current market interest rate that is available to the Company for similar financial instruments.

The valuations technique used by the Company are classified at Level 2 of the fair value hierarchy. The fair value of financial instruments that are not traded in an active market (Level 2) is determined using valuation techniques. These valuation techniques maximize the use of observable market data where it is available and rely to the minimum extent possible on Company-specific estimates.

### 33. SUBSEQUENT EVENT

On January 31, 2019, considering an exchange rate projections in the Company's budget and political / economic scenario, the parent company settled in advance all of its derivative instruments that were outstanding on December 31, 2018. Obtaining in the early settlement the gain of net adjustments of R\$20,466. In February 2019, the parent company began to recompose the derivatives portfolio to levels closer to the exchange projections of the Focus Market Report for the year 2019.

On February 5, 2019, the subsidiary Tupy Agroenergética Ltda received from Irineu Imóveis Ltda the amount of R\$5,000 related to the part of the payment for the sale of land object of partnership for the development of allotment, according to a promise of purchase and sale made between the parties.

On March 14, 2019, the Company's Board of Directors approved the distribution to its shareholders of interest on shareholders' equity in the amount of R\$100,000. The payment will be made on March 28, 2019.

\* \* \*



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## **A free translation from Portuguese into English of Independent auditor's report on individual and consolidated financial statements**

To  
Shareholders, Board of Directors and Officers of  
**Tupy S.A.**  
Joinville - SC

### **Opinion**

We have audited the individual and consolidated financial statements of Tupy S.A. (the "Company"), identified as Company and Consolidated, respectively, which comprise the statement of financial position as at December 31, 2018, and the statement of profit or loss, of comprehensive income (loss), of changes in equity and of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the individual and consolidated financial position of Tupy S.A. as at December 31, 2018, and its individual and consolidated financial performance and cash flows for the year then ended, in accordance with the accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB).

### **Basis for opinion**

We conducted our audit in accordance with the Brazilian and International Standards on Auditing. Our responsibilities under those standards are further described in the "Auditor's responsibilities for the audit of the individual and consolidated financial statements" section of our report. We are independent of the Company and its subsidiaries in accordance with the relevant ethical principles set forth in the Code of Professional Ethics for Accountants, the professional standards issued by Brazil's National Association of State Boards of Accountancy (CFC) and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we obtained is sufficient and appropriate to provide a basis for our audit opinion.

### **Key audit matters**

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the individual and consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide an individual opinion on these matters. For each matter below, our description of how our audit addressed the matter, including any commentary on the findings or outcome of our procedures, is provided in that context.

We have fulfilled the responsibilities described in the "Auditor's responsibilities for the audit of the individual and consolidated financial statements" section of our report, including in relation to these matters. Accordingly, our audit included the performance of procedures designed to respond to our assessment of the risks of material misstatements of the financial statements. The results of our audit procedures, including the procedures performed to address the matters below, provide the basis for



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our audit opinion on the accompanying financial statements.

#### *Revenue recognition*

The Company recognizes sales revenue to domestic and international customers under a variety of terms and conditions, whose delivery of the product does not necessarily occur on the same date as the invoice issue. Measurement of the revenue amount to be recognized, including determining the appropriate time for recognizing this revenue, from the determination of when the customer obtains the control over the product for each sale transaction, implies a certain level of judgment by management. The revenues earned by the Company and its recognition criteria in P&L are disclosed in Notes 2.5(k) and 20 to the individual and consolidated financial statements.

This matter was considered significant for our audit, due to the magnitude of the amounts involved and the risk of recognition of revenue in the incorrect accounting period, especially in relation to the monthly accounting closing period (cut-off period), considering the judgment applied in determining the moment in which the customer obtains the control over the product.

#### *How our audit addressed this matter*

Our procedures included, among others, the recalculation of estimates for reversal of sales invoiced in the cut-off period whose control over the products was not fully transferred to customers, analysis of non-routine entries, reading and understanding of contractual terms with customers and inspection of documentation for a sample of sales recorded over the year with respect to the actual financial realization.

Based on the results of the audit procedures performed on revenue recognition for the year, which is consistent with management's assessment, we consider that the criteria and assumptions adopted by management for recording revenues, as well as the respective disclosures in Notes 2.5(k) and 20, are appropriate, in the context of the individual and consolidated financial statements taken as a whole.

#### **Provision for tax, civil and labor contingencies**

The Company is involved in various legal and administrative proceedings related to tax, civil and labor matters, as disclosed in Note 18. For those proceedings whose likelihood of loss was assessed as probable, the Company recorded a provision for tax, civil and labor contingencies amounting to R\$200,421 thousand and R\$200,432 thousand in the individual and consolidated financial statements, respectively, at December 31, 2018.

This area is significant for our audit process due to the potential risk related to certain demands, as well as the fact that the assessment of these proceedings includes significant judgment by management, supported by its legal advisors, mainly regarding the classification of these proceedings as a contingent liability or as a provision.

#### *How our audit addressed this matter*

Our procedures included, among others, obtaining and analyzing confirmation letters from the Company's external and internal legal advisors, in order to compare their assessments on outstanding proceedings with the positions considered by management. We involved tax subject matter experts, when necessary, to assist us in interpreting and assessing risks of the most subjective proceedings, and



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hold meetings with management and its experts to discuss the evolution of the significant ongoing lawsuits.

Based on the results of the audit procedures performed, which are consistent with management's assessment, we consider that the criteria and assumptions adopted by management, as well as the respective disclosures in Note 18, are appropriate, in the context of the individual and consolidated financial statements taken as a whole.

### **Credits from Eletrobras**

A compulsory loan was granted to Eletrobras aiming at financing the expansion and improvement of the energy sector. This burden was charged to industrial consumers with monthly consumption equal to or higher than 2 thousand kilowatts and paid through bills (electricity bills) issued by energy distributors. From 1977, the annual amount withheld related to these compulsory contributions became a consumers' credit always from January 1 of the year following that of the billed energy.

In this context, as disclosed in Note 10, in 2003 the Company was successful (final and unappealable decision) in the lawsuit filed against Eletrobras, which ensured Tupy's right to receive the difference of the monetary restatement of the electric energy compulsory loan, at which time the credit started to be accounted for. As part of the litigation, a claim relating to the remaining portion of applicable interest and monetary restatement remained without trial at that time and was not accounted for, since a final and unappealable decision on that matter had not yet been handed down.

As described in Note 10, on October 1, 2018, a final and unappealable decision on this remaining portion relating to interest and monetary restatement was handed down by the Federal Supreme Court of Brazil (STF). At that moment, the decision validated the calculation criteria of the restatements and interest that served as the basis for the garnishment occurred in 2016, on which no further appeals seeking to change referred to calculation criteria can be lodged. Based on this decision, management together with its lawyers and other Governance bodies, concludes that the entire claim was qualified as virtually certain, leaving only the payment of the amount due after validation of the final and unappealable valuation criteria, which may be in cash or in shares issued by Eletrobras. Accordingly, in 2018 the Company supplemented the amount of referred to credit, in the amount of R\$68,804 thousand, net of the embedded derivative originated from the option that Eletrobras held to pay the referred to credit in cash or through its own shares.

#### *How our audit addressed this matter*

Our procedures included, among others, the review of the procedural history supported by the legal experts to review and interpret the procedural stage, allowing us to evaluate the adequacy of information and conclusions reached by management. Our procedures also included the involvement of internal subject matter experts in financial instruments to assist us in reviewing the calculation of the identified embedded derivative as well as the review by the audit team of the consistency of the assumptions for restatement of the calculations used to determine and record the amount receivable from Eletrobras to determine the best realization estimate.

Based on the results of the audit procedures performed, which are consistent with management's assessment, we consider that the criteria and assumptions adopted by management, as well as the respective disclosures in Notes 2.4(e) and 10, are appropriate, in the context of the individual and



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consolidated financial statements taken as a whole.

### **Other matters**

#### **Statements of value added**

The individual and consolidated Statements of Value Added (SVA) for the year ended December 31, 2018, prepared under the responsibility of Company management and presented as supplementary information for purposes of IFRS, were submitted to the same audit procedures conducted together with the audit of the Company's financial statements. For the purposes of forming our opinion, we evaluated whether these statements are reconciled with the financial statements and accounting records, as applicable, and whether their form and content are in accordance with the criteria provided for in Accounting Pronouncement CPC 09 - Statement of Value Added. In our opinion, these statements of value added were prepared fairly, in all material respects, in accordance with the criteria provided for in Accounting Pronouncement CPC 09 and are consistent with the overall individual and consolidated financial statements.

#### **Other information accompanying the individual and consolidated financial statements and the auditor's report**

Company management is responsible for such other information, which comprise the Management Report.

Our opinion on the individual and consolidated financial statements does not cover the Management Report and we do not express any form of assurance conclusion thereon.

In connection with the audit of the individual and consolidated financial statements, our responsibility is to read the Management Report and, in doing so, consider whether this report is materially inconsistent with the financial statements or with our knowledge obtained in the audit or, otherwise, whether this report appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of the Management Report, we are required to report that fact. We have nothing to report on this matter.

#### **Responsibilities of management and those charged with governance for the individual and consolidated financial statements**

Management is responsible for the preparation and fair presentation of the individual and consolidated financial statements in accordance with the accounting practices adopted in Brazil and with the International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB), and for such internal control as management determines is necessary to enable the preparation of financial statements that are free of material misstatement, whether due to fraud or error.

In preparing the individual and consolidated financial statements, management is responsible for assessing the Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Company and its subsidiaries or to cease operations, or has no realistic alternative but to do so.



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Those charged with governance are responsible for overseeing the Company's and its subsidiaries' financial reporting process.

### **Auditor's responsibilities for the audit of individual and consolidated financial statements**

Our objectives are to obtain reasonable assurance about whether the individual and consolidated financial statements as a whole are free of material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Brazilian and International Standards on Auditing will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users made on the basis of these financial statements.

As part of an audit in accordance with Brazilian and International Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the individual and consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinion. The risk of not detecting a material misstatement resulting from fraud is higher than of the one resulting from error, as fraud may involve the circumvention of internal controls, collusion, forgery, intentional omissions or misrepresentation.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the internal control of Company and its subsidiaries.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's and its subsidiaries' ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the individual and consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Company and its subsidiaries to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the individual and consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group



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audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements, including applicable independence requirements, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we are required to determine those matters that were of most significance in the audit of the financial statements of the current year and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Curitiba, March 14, 2019.

ERNST & YOUNG  
Auditores Independentes S.S  
CRC 2SP 015.199/O-6

Alexandre Rubio  
Accountant CRC 1SP223361/O-2

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**OPINION OF THE FISCAL COUNCIL**

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The Fiscal Council of TUPY S.A., in the course of its legal and statutory activities, has analyzed the Company's management report and the financial statements for the year ended December 31, 2018, which comprise the balance sheet and the statements of income, comprehensive income, changes in equity, cash flow and value added for the year then ended, in addition to the notes and management's proposals related to the allocation of Net Income. Subsequently, we have also analyzed documents and substantially all of the information and clarifications provided by the external auditors and the Company's management during the year.

Therefore, based on these analyses, on the opinion of the Audit and Risk Committee and on the independent auditor's report issued by Ernst & Young Auditores Independentes S.S. on March 14, 2019, with an unqualified opinion, the Fiscal Council unanimously states that the documents mentioned above as well as management proposals are adequate to be submitted to the Annual General Meeting of Shareholders.

João Augusto Monteiro

Denise Lopes Vianna

Kurt Janos Toth

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**OPINION OF THE AUDIT AND RISKS COMMITTEE**

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The Audit and Risks Committee of Tupy S.A., a Board of Directors' non-statutory body, is responsible for supporting the Board of Directors, ensuring for the quality and integrity on the financial statements, in compliance with the legal and regulatory requirements in terms of the procedures and independence for external and internal audit activities, and also for the effectiveness of the risk management and internal control systems of the Company.

During the year of 2018 the committee had eighteen meetings, with the assistance of the external and internal audit and also with the president and directors.

Assessed the scope and consequent independent auditor annual plan; examining internal control audit plan, considering improving of systems and risks controlling, and the legal and regulatory aspects of external audit review of quarterly information, and the annual exam from financial statements.

In addition, the committee monitors the maintenance of provisions and contingent assets and liabilities, the internal hotline effectiveness, and monitoring the progress of action plans based on the external and internal audit recommendations.

Based on the activities carried out in the period and considering that all relevant issues were mentioned by the Board of Directors, as well as on the analyses of the Management Report, together with the parent company and consolidated financial statements and the accompanying notes issued on March 14, 2019 by Ernst & Young Auditores Independentes S.S., without reservations, consider the financial statements can be evaluated by the Board of Directors, for further deliberation of the Shareholders' meeting.

Joinville, March 14, 2019

João Verner Juenemann

Coordinator

Maria Carmen Westerlund Montera

José Carlos Reis da Silva

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## **MANAGEMENT**

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### **BOARD OF DIRECTORS**

#### **President**

Gabriel Stoliar

#### **Vice-president**

José Carlos Reis da Silva

#### **Members**

Antonio José de Carvalho

Jaime Luiz Kalsing

José Rubens de La Rosa

Ricardo Antonio Weiss

Ricardo Doria Durazzo

Sedat Özmen

Vicente Humberto Lôbo Cruz

### **BOARD OF OFFICERS**

#### **CEO**

Fernando Cestari de Rizzo

#### **Vice-president**

Thiago Fontoura Struminski (DRI)

#### **Accountant**

Pedro Henrique Eyng

CRC-SC 16.161 – CPF 537.813.259-20