6. Property, plant, and equipment

The breakdown and movements in property, plant, and equipment during 2023 and 2022 are as follows:

	Thousands of euros							
	Land and buildings	Plant and equipment.	Other installations, tools and furniture	Property, plant, and equipment	Property, plant, and equipment under construction and payments on account	Amortisation and depreciation	Impairment	Total
Opening balance as at 1 January 2022	274,833	912,362	118,542	45,220	49,079	-901,021	-748,000	498,267
Exchange gains (losses)	4,161	22,764	466	1,008	1,756	-19,053	-6	11,096
Additions	16,855	67,109	1,912	4,891	29,595	-68,076	-45	52,241
Disposals	-29	-4,818	-273	-691	-62	5,443	47	-383
Transfers	10,561	55,739	3,349	1,112	-70,738	0	0	23
Closing balance as								
at 31 December 2022	306,381	1,053,156	123,996	51,540	9,630	-982,707	-752	561,244
Exchange gains (losses)	-3,269	-1,164	-1,164	-762	-164	3,409	2	-3,112
Additions	3,342	26,728	2,88	2,263	38,093	-73,628	-308	-630
Disposals	-109	-2,497	-602	-1,756	-9	3,638	0	-1,335
Transfers	3,217	18,73	723	856	-23,552	0	0	-26
Closing balance as								
at 31 December 2023	309,562	1,094,953	125,833	52,141	23,998	-1,049,288	-1,058	556,141

The balances of this heading at 31 December 2023 and 2022 are the following:

	Thousands of euros							
		31.12.2023	31.12.2022					
	Cost	Amortisation and depreciation	Total	Cost	Amortisation and depreciation	Total		
Land and buildings	309,562	-145,176	164,386	306,381	-137,971	168,41		
Plant and equipment	1,094,953	-772,812	322,141	1,053,156	-720,617	332,539		
Other installations, tools and furniture	125,833	-95,366	30,467	123,996	-90,414	33,582		
Property, plant, and equipment	52,141	-36,992	15,149	51,54	-34,457	17,083		
Property, plant, and equipment under construction and payments on account	23,998	0	23,998	9,63	0	9,63		
TOTAL	1,606,487	-1,050,346	556,141	1,544,703	-983,459	561,244		

In 2023, investments in property, plant and equipment in the Group totalled 73,306 thousand euros. Projects during the year included recurring maintenance investments, progress on the construction of a new cellulosic and collagen converting plant in Thailand, and investments in the converting phase in the Czech Republic.

Investments in property, plant and equipment amounting to 120,362 thousand euros were made in 2022. The main projects, launched in the first months of 2023, were focused on increasing collagen casing capacity in Spain, Germany, Serbia, China and the United States. In addition, investment has been made in new cellulose technology for the Danville plant in the United States, and the new collagen hydrolysates plant in Germany has been started up to boost the development of New Businesses, as well as new initiatives aimed at strengthening competitive advantages, especially in the energy field.

Details of the cost of fully depreciated property, plant, and equipment in use at 31 December 2023 and 2022 are as follows:

	Thousands of	Thousands of euros		
	2023	2022		
Buildings	67,135	63,631		
Plant and equipment	526,828	459,769		
Other installations, tools and furniture	69,062	64,497		
Property, plant, and equipment	27,200 €	24,148		
Fully depreciated assets	690,225	612,045		

As a result of the annual investment plan, at year-end 2023 there are commitments to acquire fixed assets amounting to 28,936 thousand euros, including the installation of a new converting centre in Thailand, an increase in plastics capacity in Mexico and environment-related investments in Spain and Brazil.

At 2022 year-end, non-current asset purchase commitments amounted to 4,233 thousand euros, related to the converting facilities in Thailand.

The Group has insurance policies covering the various risks to which its items of property, plant, and equipment are exposed. The coverage of these policies is considered sufficient.

Impairment test

During the last two years, no signs of impairment have been identified in any of the Group's cash-generating units.

However, investment in the US has generated negative results in recent years. During 2022, the Company's management decided to make certain investments in the American subsidiary in order to modernise the production assets and to improve the situation of this subsidiary. As a result of these investments (and an optimisation of their operation during the financial year 2023), management considers that there is no reason to impair the investment.

In order to carry out the impairment analysis, the main assumptions considered were as follows:

- investments of approximately USD 75 million have been made in the US plants, which have reached optimal operation in 2023 (these investments are almost entirely incorporated in Viscofan USA's assets at the end of 2022).
- the sales envisaged in the plan are expected to grow in the following years in line with installed capacity increases.
- the current circumstances of raw material and production costs have been considered, adapted to the current market circumstances and the new materialised investments.
- the EBITDA to sales projection is increasing as new investments materialise, reaching reasonable margins within the context of the group.
- the impact on working capital as a result of the projections made.
- the pre-tax discount rate is 10.10%.

After performing the above analysis, the present value of future cash flows is significantly higher than the present value of the investment. However, a sensitivity analysis has been performed on the main variables, identifying a more conservative scenario in the estimates, in which the slack in the analysis remains significant, as well as an increase in the discount rate to a value of 10.4%, without identifying any impairment. Finally, a more aggressive scenario has been considered in which both flow and discount rate sensitivities are considered, and in this scenario a deterioration of the US investment is not identified either.