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VIA EDGAR AND BY FEDERAL EXPRESS

June 17, 2014

Pamela Long, Esq. United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-0404

Re: Materialise NV

Amendment No. 2 to Registration Statement on Form F-1

Filed May 23, 2014 File No. 333-194982

Dear Ms. Long:

On behalf of our client, Materialise NV, a Belgian limited liability company (*naamloze vennootschap*) (the "Company"), set forth below are the responses of the Company to comments made by the staff (the "Staff") of the Securities and Exchange Commission (the "SEC") by letter dated June 12, 2014 (the "Comment Letter") in connection with the Company's above referenced Registration Statement on Form F-1, as amended (the "Registration Statement").

The Company's responses to the Staff's comments contained in the Comment Letter are set out in the order in which the comments were set out in the Comment Letter and are numbered accordingly.

Because of the commercially sensitive nature of certain information contained in this response letter (the "Letter"), this submission is accompanied by a request for confidential treatment for selected portions of this Letter. For the Staff's reference, we have separately furnished to the Staff by hand delivery on the date hereof (i) a separate copy of this Letter marked to show the full text of the portions of this Letter redacted from the version filed via EDGAR for which the Company is requesting confidential treatment and (ii) a transmittal letter to the Staff requesting confidential treatment with respect to those redacted portions of this Letter (the "Request Letter"), in each case pursuant to Rule 83 of the Rules on Information and Requests of the SEC, 17 C.F.R. § 200.83 ("Rule 83"). We have also furnished a copy of the Request Letter to the SEC's Office of Freedom of Information and Privacy Act pursuant to Rule 83.

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In accordance with Rule 83, the Company requests confidential treatment of (i) the portions of this letter marked as [***] (the "Confidential Information") and (ii) the above-referenced Request Letter (collectively, the "Confidential Material"). Please promptly inform the undersigned of any request for disclosure of the Confidential Material made pursuant to the Freedom of Information and Privacy Act or otherwise so that the undersigned may substantiate the confidentiality of the omitted information in accordance with Rule 83.

In accordance with Rule 83, this Letter has also been clearly marked with the legend "Confidential Treatment Requested by Materialise NV" and each page is marked with the identifying numbers and code "MAT-001" through "MAT-0011."

Pursuant to Rule 418(b) of the Securities Act of 1933, as amended (the "Securities Act"), the Company is also supplementally providing the Staff a copy of the Company's statutory auditor's Assessment of the Company's Proposed Valuation, dated September 27, 2013 (the "September Assessment"), and the Company's statutory auditor's Update of the Assessment of the Company's Proposed Valuation, dated November 26, 2013 (the "November Assessment" and, together with the September Assessment, the "Assessments").

Management's Discussion and Analysis of Financial Condition and Results of Operations, page 61

Additional Information Regarding Ordinary Share Value, page 82

- 1. We note your response to comment 4 in our letter dated June 9, 2014. Please provide us with the following information to help us better understand the specific differences in assumptions and estimates made by management and the Board of Directors as compared to the underwriters:
 - The per ordinary share fair value estimated from the Multiples Method and the DCF Method as of September 27, 2013 and November 26, 2013.
 - The names of the seven comparable companies used by management and by the underwriters and why seven comparable companies is an appropriate number of companies for the Multiples Method to be weighted equally with the DCF method. A confirmation that all seven comparable companies were used to estimate the expected volatility for both valuation dates, or an explanation which companies were not used and why.

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The Company's statutory auditor is [***].

- The specific multiples used by management from the seven comparable companies for both valuation dates. A discussion as to whether
 any adjustments were made to the multiples for material differences between Materialise and the seven comparable companies, along
 with the impact of those adjustments to the actual multiples calculated for the comparable companies.
- The EBITDA amount used for both valuation dates. An explanation as to why annualized the six-months EBITDA was used instead of a rolling-twelve months ended June 30, 2013 EBITDA amount. How the EBTIDA amount was calculated for November 26, 2013. If the same EBITDA amount was used for both valuation dates, an explanation why the third quarter of fiscal year 2013 operating results were not used for the November 26, 2013 valuation date.
- The specific multiples used by the underwriters and how these multiples were determined. The company-specific amounts to which the multiples were applied and how these amounts were calculated.
- A discussion of the material differences between the Multiples Method utilized by management versus the underwriters. The estimated impact to management's fair value of the per ordinary share had the underwriters' specific methods, assumptions and estimates has been used by management.
- A more detailed discussion of the financial information management used as the basis for preparing the discounted cash flow analysis (e.g., the three-year budget period and how the budge was developed). The specific assumptions and estimates used for the DCF method, for example the number of periods cash flows were estimated, the growth rates, if a terminal value was used and what it was, the weighted average cost of capital, the discount for lack of marketability, for the two valuation dates. A description of management's basis for the assumptions and estimates included in the DCF method.
- The present value discount and discount for lack of marketability estimated by the underwriters.

Please provide us with any additional information that will aid in our understanding of the differences between management's fair value per ordinary share as of November 26, 2013, and the underwriters' fair value per ordinary share as of June 2, 2013

Company Response:

In response to the Staff's comment, the Company supplementally advises the Staff as follows.

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Please note that, unless otherwise stated, the per share amounts set forth in this response reflect the impact of the stock split (the "**Stock Split**") to be effected concurrently with the closing of the Company's initial public offering, in which the Company will issue four new ordinary shares, no nominal value ("**Ordinary Shares**"), for every outstanding Ordinary Share (the "**Stock Split Ratio**").

• The following table summarizes the fair value per Ordinary Share estimated by the Company's valuation methodologies as of the relevant valuation dates:

	Per share fair						
Date of Valuation	Valuation Methodology	Company Valuation (in thousands of euros)		value (in euros)		Per share fair value (in dollars)2	
September 27, 2013	DCF Method	€	76,514	€ `	1.96	\$	2.70
September 27, 2013	Multiples Method	€	77,849	€	2.00	\$	2.75
November 26, 2013	DCF Method	€	76,514	€	1.96	\$	2.70
November 26, 2013	Multiples Method	€	90,411	€	2.32	\$	3.20

• The seven peer companies used by the Company were: [***] ("Peer Group I"). Peer Group I was carefully selected from market sectors corresponding to the sectors that the Company is active in: additive manufacturing ([***]), software ([***]) and medical devices ([***]). Selecting a truly comparable peer group of public companies was inherently difficult because there is, to the best of the Company's knowledge, no public peer company that has a similar mix of activities. While the Company is generally active in the 3D printing industry, it has focused its activities on three distinct submarkets of the industry (the 3D printing software, medical and industrial production segments described in the Registration Statement). Therefore, the Company sought to select peers that were active in at least one of the submarkets that the Company addresses. Furthermore, the companies within each sector grouping were selected because their respective business activities were viewed to resemble most closely the Company's own business activity in the relevant market segment. Each market sector was assigned a weighting based on the importance of the sector for the Company (additive manufacturing – 28%, software – 34% and medical – 38%), and the Enterprise Value to EBITDA multiple was calculated on a weighted average basis.

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Amounts in this column have been converted from euros to U.S. dollars solely for the convenience of the Staff at an exchange rate of \$1.3777 per euro, the exchange rate on March 31, 2014.

In connection with the September 27, 2013 valuation, the Company gave equal weighting to the DCF Method and the Multiples Method because each method's resulting valuation had a substantially similar result. Although the Multiples Method resulted in an increase in valuation of approximately 15% when the Company performed the updated valuation on November 26, 2013, the Company used the same weighting between the two methods when it performed this updated valuation to keep the methodology consistent.

The underwriters have informed the Company that they have identified seven peer companies in their comparison: [***] ("Peer Group II"). The underwriters are positioning the Company to investors first and foremost as an additive manufacturing company. The underwriters' view is that investors in the offering will value the Company in comparison to the public companies in the additive manufacturing sector because of the predominant importance of 3D printing technology in each of the three subsectors in which the Company is active and selected Peer Group II accordingly. Peer Group II includes the three additive manufacturing companies that were also part of the additive manufacturing segment of Peer Group I ([***]). Three companies that are part of Peer Group II and not of Peer Group I were, at the time when the Company constituted Peer Group I, either not yet public or only very recently public: [***] became public in [***]; [***] in [***] and [***] in [***].

• The following table summarizes the Enterprise Value to (historical) EBITDA multiples for Peer Group I used by the Company as of the relevant valuation dates:

Company	EV/EBITDA Multiple as of September 27, 2013	EV/EBITDA Multiple as of November 26, 2013
[<u>***</u>]	34.84	32.59
[<u>***</u>]	61.94	71.15
[<u>***</u>]	52.19	64.22
[<u>***</u>]	14.54	19.31
[<u>***</u>]	12.76	14.53
[<u>***</u>]	8.98	10.23
[<u>***</u>]	8.73	9.08
Weighted Average Multiple:	21.91	25.10

For additional information, see page 26 of each of the Assessments.

No adjustments were made to the individual Enterprise Value to EBITDA multiple of any company in Peer Group I. As discussed above, the Company calculated a weighted average Enterprise Value to EBITDA multiple for Peer Group I based on the above referenced weightings. The Company also applied an illiquidity discount of 25% to the estimated Company value arrived at using such weighted average multiple.

• The EBITDA amount used for both valuation dates was €5,195 thousand. This EBITDA was a "pro forma" EBITDA for the year ended December 31, 2013, calculated by annualizing the

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Company's EBITDA for the six months ended June 30, 2013. The Company used this pro forma EBITDA rather than the Company's EBITDA for the twelve months ended June 30, 2013 because this pro forma EBITDA reflected some of the anticipated growth in EBITDA for fiscal year 2013 (the budgeted EBITDA for 2013 was €[***]), while also being generally in line with the EBITDA from 2012 (EBITDA for 2012 was €5,136 thousand). The Company did not use EBITDA for the nine months ended September 30, 2013 in connection with its November 26, 2013 valuation because the Company historically has only prepared half year interim accounts.

- As noted in the Company's prior response letter dated June 10, 2014, the underwriters used the ratio of Enterprise Value to 2015 Estimated Revenues as the primary metric to derive the offering valuation range for the Company. The underwriters calculated these multiples based on consensus 2015 revenue estimates for the companies in Peer Group II. These multiples, as of June 3, 2014, ranged from [***] to [***]. The underwriters then incorporated this range of multiples, focusing on the mean and the median of such multiples, into the underwriters' valuation analysis and applied these multiples to the Company's projected 2015 revenues (€[***]) to derive a valuation range for the Company (before the IPO discount described below). The 2015 projected revenues the underwriters used for the Company were prepared by the underwriters' equity research analysts. At the midpoint of the offering valuation range of \$13.00, the Company's valuation (after the IPO discount and excluding the estimated proceeds of the offering) is [***] the Company's projected 2015 revenues.
- The material differences between the Company's Multiples Method and the underwriter's valuation method are the following:
 - The Company's Multiples Method was based on EBITDA whereas the underwriters' method was based on revenues. Further, the EBITDA used by the Company was an annualization of the Company's historical EBITDA for the six months ended June 30, 2013 whereas the revenue used by the underwriters was based on projected revenues prepared by the underwriters for the year ended 2015. In general, revenue multiples are likely to result in higher valuations.

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- The peer group used by the Company (Peer Group I) was comprised of public companies in the additive manufacturing, software and medical sectors. The peer group selected by the underwriters (Peer Group II) was comprised solely of public companies in the additive manufacturing sector. In general, companies in the additive manufacturing space have been trading at higher valuation multiples. In addition, Peer Group I included one company traded on the London Stock Exchange. Peer Group II was comprised exclusively of companies traded on either the New York Stock Exchange or the NASDAQ. In general, U.S. listed companies tend to trade at higher valuation multiples than European listed companies. U.S. listed companies tend to trade at valuation multiples based on estimated results whereas European companies tend to trade at valuation multiples based on historical results.
- The valuation methodologies used by the Company assumed a private company (which triggered an illiquidity discount in the Multiples Method) and did not take into account any future capital increase, while the valuation that was prepared by the underwriters assumed that the Company's shares would be traded on a stock exchange and was further based on the assumption that the Company would raise approximately \$100 million in the offering.
- Had the Company, in September and November of 2013, used the valuation method that the underwriters have used in 2014, then the Company's fair value per share would have been equal to (i) the amount of the fair value per share that results from the valuation methods used by the underwriters in 2014 (based on the midpoint of the offering valuation range of \$13.00), (ii) reduced by an illiquidity discount and (iii) further reduced by a discount to reflect the absence of a capital increase (an assumption that is inherent to the valuation method used by the underwriters). Had the Company, in September and November of 2013, used, instead of the Company's projected 2015 revenues, the Company's projected 2014 revenues (between €[***] to €[***]), as prepared by the underwriters' equity research analysts, to derive a valuation range for the Company, the midpoint of such range would have been less than the valuation range based on the projected 2015 revenues but still greater than the Company's 2013 valuations based on the DCF and Multiples Methods. The Company respectfully submits that the use of the underwriters' valuation methods in 2013, whether based on the projected 2015 or 2014 revenues prepared by the underwriters, would have resulted in a valuation that would have been significantly higher than the valuation that independent third parties had reached on November 21, 2012 (€1.28 per share) in the context of a transfer of the Company's shares from an existing shareholder to a transferee shareholder. This arms' length valuation was, at the time of the 2013 valuations, the only objective data point that the Company had and

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further supports the Company's view that the valuation methods (the DCF and Multiples Methods) that the Company used in 2013 are in line with the valuation methods that other parties had used in a similar (i.e., private), arms' length context less than one year earlier.

• The Company used the Company's business plan for 2013, 2014 and 2015 for purposes of the DCF Method. The business plan contained a budgeted income statement, balance sheet and cash flow statement for each of these three years, based on certain assumptions regarding expectations for investments, financing, dividends, tax rates and net equity. In addition, the business plan contained projections for 2016 and 2017 assuming an increase of revenues and expenses of 2% per year. The business plan was developed by Company's management and approved by the Company's board of directors as part of the Company's annual budgeting process. A full copy of the business plan can be found beginning on page 15 of each of the Assessments.

The DCF Method valuation was the same for each of the September 27, 2013 and November 26, 2013 valuation dates. With respect to certain of the assumptions used:

- Cash flows were estimated for each of 2013 (€[***]), 2014 (€[***]), 2015 (€[***]), 2016 (€[***]) and 2017 (€[***]).
- A residual value of €[***] was used.
- A perpetual growth rate of 0% was used.
- A weighted average cost of capital of 6.61% on the free cash flows and of 7.93% on the residual value was used.
- A discount for lack of marketability of 0% was used.

A detailed discussion of the basis of the assumptions and estimates used to arrive at the DCF Method value, including the weighted average cost of capital used in connection therewith, can be found beginning on page 20 of each of the Assessments.

• As noted in the Company's prior response letter dated June 10, 2014, the offering valuation range for the Company reflects the underwriters' view of a market discount to the Company's intrinsic valuation required by its new public security holders to reflect the illiquidity of the Company's shares and the risk inherent in investing in newly-public companies (the "IPO discount"). The underwriters have incorporated discounts ranging from [***]% into the underwriters' valuation analysis (with an implied discount of [***]% to the median 2015 estimated revenues multiple of the peer group, at the midpoint price of \$13.00).

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In terms of additional considerations that went into the Company's decisions regarding its valuation, as the Company has previously stated in its prior response letter dated June 10, 2014, the Company initially based its valuation discussions on an initial assumption of €1.96 per share, on a preliminary basis, based on adjustments³ to the most recent third party acquisition of its shares (which, as discussed above, occurred at €1.28 per share, on November 21, 2012). The Company then determined to conduct the more involved valuation process that it has described to the Staff, which included the Assessments of the Company's statutory auditor and resulted in a confirmation of the Company's prior valuation assumptions. This 2012 arms' length transaction was the only objective data point that the Company had at the time of the September and November 2013 valuations and the Company respectfully submits that the 2012 transaction price offers support that the valuation methodologies that the Company subsequently used (in a private company context) were in line with the valuation methodologies that third parties had used approximately one year earlier. The Company's view in this regard is further supported by the fact that the Company's statutory auditor prepared a report – as is required under Belgian tax laws – confirming the validity of the valuation methodologies used by the Company.

Further, as noted in the Company's prior response letter dated June 10, 2014, the Company's board of directors ultimately did not make the final determination to pursue a U.S. public offering and listing until December 2013. When the Company's investment banks and counsel were engaged, they were engaged to conduct either a U.S. or European offering on the Company's behalf, and with the understanding that the Company would subsequently decide which track to pursue. As has been noted above, European offerings occur generally at lower per share valuations than U.S. offerings. Although the prospect of achieving a higher valuation was a critical factor in the board's decision to pursue the U.S. offering, a number of equally important competing considerations regarding associated costs, liability and timing existed, including the belief that the Company could come to market more quickly in Europe. Given that the decision had not yet been determined as of the September 27, 2013 and November 26, 2013 valuation dates, the Company respectfully submits that it is appropriate that its own valuations were done in a manner that differs from the valuation method ultimately used by the underwriters.

Finally, prior to deciding to seek a listing in the United States, the Company had engaged in discussions with private equity funds as an alternative path to a public capital markets transaction. On December 30, 2013, these discussions resulted in a very preliminary offer by a third party, valuing the Company at €[***] per share, or \$[***] per share, based on the March 31, 2014 euro to dollar exchange rate. The Company acknowledges that this was a preliminary, early stage valuation, but notes that it nevertheless represents a significant discount to the valuation by the underwriters.

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³ As discussed in the prior response letter, these adjustments were based on the 54% average increase of the market capitalization of certain publicly-traded peer companies since November 2012.

As a follow-up to the Company's telephone conversation with the Staff on June 11, 2014, below is a sensitivity analysis of the impact that an adjustment of the compensation expenses, resulting from an adjustment of the fair value per share of respectively \$4.00, \$6.00 and \$10.00 in 2013, would have on the Company's fiscal year 2013 and first quarter 2014 results of operations. This analysis is meant to be for illustrative purposes only.

Impact on consolidated income statement	Based on \$4		Based on \$6		Based on \$10			
	Year ended 12/31/2013	3 months ended 3/31/2014	Year ended 12/31/2013	3 months ended 3/31/2014	Year ended 12/31/2013	3 months ended 3/31/2014		
		(in tho	(in thousands of €, except per share amounts)					
Net profit pre-adjustment	3,412.0	82.0	3,412.0	82.0	3,412.0	82.0		
Impact of compensation expense adjustment	(7.0)	(16.0)	(19.0)	(46.0)	(46.0)	(110.0)		
Net profit post-adjustment	3,405.0	66.0	3,393.0	36.0	3,366.0	(28.0)		
Basic earnings per share post-adjustment (but prior to Stock Split)	0.37	0.01	0.37	0.01	0.37	0.00		
Diluted earnings per share post-adjustment (but prior to Stock Split)	0.37	0.01	0.37	0.01	0.36	0.00		

The Company chose these values based on the factors discussed above. A range of \$4.00 to \$6.00 was determined to be indicative of the preliminary third party offer made on December 30, 2013 described above, and the \$10.00 value was determined based on the midpoint of the offering valuation range of \$13.00 determined by the underwriters, reduced by a 25% illiquidity discount, similar to that used in the Assessments.

At an adjusted fair value per share of \$10.00 (the highest amount used in the above sensitivity analysis), the adjustment would be for an amount that would represent less than 0.1% of the Company's total revenues for the fiscal year 2013 and 0.6% of the Company's total revenues for the first quarter 2014. Furthermore, the reduction in net profit, using the fair value per share of \$10.00, has been deemed by management not to be material to the Company's financial statements issued for either the year ended December 31, 2013 or for the quarter ended March 31, 2014, taking into account management's considerations of how such information would have been viewed by a reasonable investor and management's determination that such information would not have significantly altered the total mix of information made available to such reasonable investor in either period.

Such sensitivity analysis is, however, not indicative of management's assessment of the strike price fair value of its warrants. The Company's management continues to note the Staff's commentary in relation to its identification of fair value to the warrants issued in October and December 2013, and January 2014. It is the Company's continued position that management made its best estimate, based on the information available to it from its Peer Group I analysis and the related Assessments carried out by the Company's statutory auditor, and that the value ascribed at the time was appropriate. Such estimate of fair value is inherently subjective, and management believes that identifying fair value based off of the additive manufacturing, software and medical sectors was a reasonable indicator of fair value at the time of issuance.

Should the Staff have additional questions or comments regarding any of the foregoing, please do not hesitate to contact the undersigned at (212) 878-3079 or Alejandro E. Camacho at (212) 878-8434.

Sincerely,

/s/ Per B. Chilstrom

Per B. Chilstrom

cc: Securities and Exchange Commission Tracey Smith Alfred Pavot Kamyar Daneshvar

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> Materialise NV Wilfried Vancraen Peter Leys

Clifford Chance US LLP Alejandro E. Camacho

Paul Hastings LLP William F. Schwitter

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