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June 4, 2014

VIA EDGAR AND FEDERAL EXPRESS

FOIA CONFIDENTIAL TREATMENT REQUESTED BY MATERIALISE NV

Pamela Long, Esq. Kamyar Daneshvar, Esq. United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-0404 Mail Stop 4631

Re: Materialise NV

Registration Statement on Form F-1

Filed May 23, 2014 File No. 333-194982

Dear Ms. Long and Mr. Daneshvar:

On behalf of our client, Materialise NV, a Belgian limited liability company (*naamloze vennootschap*) (the "**Company**"), we are submitting this letter in response to comments received from the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") (i) by letter dated April 16, 2014 (the "**First Comment Letter**"), relating to the Company's draft registration statement on Form F-1 (which the Company confidentially submitted to the Commission on February 24, 2014 and which the Company subsequently revised in response to the Comment Letter and publicly filed on April 2, 2014 and subsequently amended on April 23, 2014 and May 23, 2014 (as so filed and amended, the "**Registration Statement**")) and (ii) by letter dated May 1, 2014 (the "**Third Comment Letter**"), related to Amendment No. 1 to the Registration Statement. In this letter, we are only responding to comment number 26 in the First Comment Letter and supplementing the Company's prior response to comment number 1 in the Third Comment Letter, which have been reproduced in their entirety below.

Confidential Treatment Request

Due to the commercially sensitive nature of information contained herein, the Company hereby requests, pursuant to 17 C.F.R. § 200.83, that certain portions of this letter be maintained in confidence, not be made part of any public record and not be disclosed to any person, as they contain confidential information. The Company has excluded the confidential portions of this letter from the copy of the letter filed on EDGAR.

In accordance with 17 C.F.R. § 200.83(d)(1), if any person (including any governmental employee who is not an employee of the Commission) should request access to or an opportunity to inspect this letter, we request that we be immediately notified of any such request, be furnished with a copy of all written materials pertaining to such request (including, but not limited to, the request itself) and be given at least ten business days advance notice of any intended release so that the Company may, if deemed necessary or appropriate, pursue any remedies available to it. In such an event, we respectfully request that you telephone the undersigned rather than rely upon the U.S. mail for such notice. The address and telephone number for the undersigned is c/o Clifford Chance US LLP, 31 West 52nd Street, New York, NY 10019-6131, Attention: Per B. Chilstrom, Esq., telephone number (212) 878-3079.

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Staff Comments and Company Responses

Critical Accounting Policies and Accounting Estimates, page 73

Share-Based Payment Transactions, page 74

26. Please note that once you have disclosed the estimate of the IPO price/range we may have comments regarding the estimated fair value of your most recent equity grants.

Company Response:

We respectfully advise the Staff that, on June 1, 2014, the Company, based on information provided by its underwriters, determined that the estimated offering price range to be included on the cover of the Company's preliminary prospectus (the "Cover Page") is likely to be \$[***] to \$[***] per American Depositary Share ("ADS") representing one ordinary share of the Company, no nominal value ("Ordinary Share"). The midpoint of the estimated price range is \$[***] per ADS (the "Midpoint Price"). The Company anticipates making a final determination of the estimated offering prices to be included on the Cover Page within the next five to 10 days.

Please note that the foregoing per share amounts, and the other per share amounts set forth in this letter, reflect the impact a stock split (the "Stock Split") to be effected concurrently with the closing of its initial public offering, in which the Company will issue four new Ordinary Shares for every outstanding Ordinary Share (the "Stock Split Ratio"). The terms of all issued and outstanding warrants by the Company will also be adjusted to reflect the Stock Split Ratio.

As is typical in initial public offerings, the final estimated price range included on the Cover Page will not be derived using a formal determination of fair value, but instead will be determined primarily through negotiation between the Company and its underwriters. Among the factors that the Company expects to consider in setting the estimated price range for the offering are the following:

- an analysis of the typical valuation ranges seen in recent initial public offerings by companies in the Company's industry, and by companies conducting initial public offerings generally;
- the recent market prices of, and the demand for, publicly-traded common equity of companies in the Company's industry, and public companies generally;
- the general condition of the securities markets;
- an assumption that there would be a receptive public trading market for additive manufacturing, software and medical device companies such as the Company:

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- an assumption that there would be sufficient demand for the ADSs to support an offering of the size contemplated by the Registration Statement;
 and
- preliminary discussions with the underwriters concerning the potential valuation of the Company.

In comparison, the Company is required to estimate the fair value of the Ordinary Shares when granting warrants to purchase Ordinary Shares. The Company typically uses the Black-Scholes option pricing model to perform these calculations. Using this model, the fair value of the Ordinary Shares is determined on each grant date by the Company's board of directors, with input from management. Warrants to purchase Ordinary Shares are intended to be granted with an exercise price per share no less than the fair value per Ordinary Share underlying each warrant on the date of grant, based on the information known to the Company on the date of grant. In connection with the recent warrant grants described in more detail below, the board of directors considered various objective and subjective factors to determine the fair value of the Ordinary Shares, including: the conclusions of contemporaneous valuation assessments of the Ordinary Shares by the Company's statutory auditor for Belgian company and tax law purposes (who are different from the independent registered public accounting firm named as experts in the Registration Statement), external market conditions affecting the additive manufacturing, software and medical device industries, trends within the additive manufacturing, software and medical device industries, the Company's results of operations and financial position, the Company's business strategy and the lack of an active public market for the Ordinary Shares.

Below is a table summarizing the recent warrant grants by the Company:

Date of Grant	Plan	Number of Warrants	Type of Securities Upon Exercise	Number of Securities Upon Exercise	Per share fair value (euros)(1)	Per share fair value (dollars)(2)	Midpoint Price	
October 2013	2013 Warrant Plan	75,274	Ordinary Shares	301,096	€ 1.97	\$ 2.71	\$ [***]	
December 2013	2013 Warrant Plan	5,500	Ordinary Shares	22,000	€ 2.14	\$ 2.95	\$ [***]	
January 2014	2013 Warrant Plan	36,200	Ordinary Shares	144,800	€ 2.14	\$ 2.95	\$ [***]	

- (1) For grants made in October 2013, the board of directors approved on October 15, 2013 the fair value of the Ordinary Shares, based, in part, on a September 27, 2013 assessment from the Company's statutory auditor regarding the Company's proposed per share valuation. For grants made in December 2013 and January 2014, the board of directors approved on November 26, 2013 the fair value of the Ordinary Shares, based, in part, on a November 26, 2013 updated assessment from the Company's statutory auditor regarding the Company's proposed per share valuation
- (2) 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.

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The Midpoint Price exceeds the fair value of the Ordinary Shares, converted into U.S. dollars, of \$2.95 as of November 26, 2013, which was determined as described above (the "**Prior Share Valuation**"), by \$[***] per share/ADS.

The Company respectfully submits that the difference between the Prior Share Valuation and the Midpoint Price is primarily attributable to important differences in the methodologies for determining the two prices, and other factors:

- (i) The Prior Share Valuation was determined by the Company's board of directors based, in part, on the consideration of an assessment from the Company's statutory auditor regarding the proposed per share valuation that considered the application of a present value discount factor and a discount for lack of marketability.
- (ii) In contrast, the Midpoint Price assumes that the contemplated initial public offering has occurred and a public market for the ADSs has been created, and therefore excludes any discount for lack of marketability of the Ordinary Shares. In addition, the Company's discussions with the underwriters in preparation of the offering considered increased optimism with respect to market conditions and the initial public offering market, which contributed to an increase in the value of the ADSs indicated in the Midpoint Price.
- (iii) Further, the proceeds of a successful initial public offering will strengthen the Company's consolidated statement of financial position by increasing its cash and cash equivalents. Additionally, the completion of the offering will provide the Company with access to the public company debt and equity markets. These projected improvements in the Company's consolidated financial position influenced the Midpoint Price.

The Company also believes that the difference between the Prior Share Valuation and the Midpoint Price is justified by (i) the fact that the determinations by the Company's board of directors and assessments of the Company's statutory auditor utilized a quantitative methodology to determine the fair value of the Ordinary Shares, which may differ from the more qualitative and subjective methodology that may be used by some public market investors to determine the price they are willing to pay in the offering, and (ii) other factors, such as the inherent uncertainty of completing a successful initial public offering and the possibility that the actual offering price could be substantially lower than the estimated offering price range provided by the Company's underwriters.

In conclusion, the Company respectfully submits that the difference between the Prior Share Valuation and the Midpoint Price is reasonable in light of the considerations outlined above.

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The Company expects to add disclosure attached as <u>Appendix A</u> to this letter in its next amendment to the Registration Statement, which the Company expects will include the price range. The Company anticipates filing this amendment in the next five to 10 days.

Summary Financial and Operating Data, page 16

1. We note your disclosures beginning on page 125 that you will issue 300,000 new warrants in accordance with your stock option plan to certain employees and member of the Board of Directors on the closing of this offering. Please expand your disclosures to provide a narrative description of the pro forma effects of this transaction to the extent that the grant would materially impact income from continuing operations and basic and diluted earnings per share in accordance with Articles 11-01(8) and 11-02(b) of Regulation S-X.

Company Response:

As previously noted to the Staff in our letter dated May 23, 2014, upon closing of the offering, the Company plans to issue 300,000 warrants, without taking into account the Stock Split (or 1,200,000 warrants, taking into account the Stock Split). The warrants will be valued based on the Black Scholes model and will vest over a 7-year period on a graded basis. The expense to be recorded in the Company's income statement will be dependent upon the exercise price (which will equal the euro-equivalent of the initial public offering price of the ADSs being offered in the initial public offering), and will take into account the expected volatility (currently estimated to be approximately 59%), the risk-free interest rate (currently 2.29%) and expected life of the warrant (currently 5.5 years).

The pro forma financial information provided below reflects the impact of the 300,000 warrants (without taking into account the Stock Split and assuming the exercise price of the warrants is equal to the Midpoint Price) on the Company's net profit and the basic and diluted earnings per share attributable to the owners of the parent as if the warrants were issued at the beginning of each period (in thousands of €, except per share data):

- The pro forma net profit for the three month period ended March 31, 2014 would be €(175).
- The pro forma net profit for the year ended December 31, 2013 would be €2,383.
- The pro forma basic and diluted earnings per share (pre Stock Split) for the three month period ended March 31, 2014 would be €(0.01).
- The pro forma basic and diluted earnings per share (pre Stock Split) for the year ended December 31, 2013 would be €0.25.

The Company expects to add disclosure to the effect of the foregoing in its next amendment to the Registration Statement.

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FOIA Confidential Treatment Requested By Materialise NV Registration Statement on Form F-1 Filed May 23, 2014 File No. 333-194982

Should the Staff have any questions or comments regarding any of the foregoing, please do not hesitate to contact the undersigned via telephone at (212) 878-3079 or via email at Per.Chilstrom@CliffordChance.com, or in his absence, Alejandro E. Camacho via telephone at (212) 878-8434 or via email at Alejandro.Camacho@CliffordChance.com.

Sincerely,

CLIFFORD CHANCE US LLP

/s/ Per B. Chilstrom

Per B. Chilstrom

cc: *Materialise NV* Wilfried Vancraen

Peter Leys

Clifford Chance US LLP Alejandro E. Camacho

Paul Hastings LLP
William F. Schwitter

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Appendix A

Additional Information Regarding Ordinary Share Value

As described above under "—Critical Accounting Policies and Accounting Estimates—Share-Based Payment Transactions," we are required to estimate the fair value of our ordinary shares when granting warrants to purchase our ordinary shares. We typically use the Black-Scholes option pricing model to perform these calculations. Using this model, the fair value of our ordinary shares is determined on each grant date by our board of directors, with input from management. Warrants to purchase our ordinary shares are intended to be granted with an exercise price per share no less than the fair value per ordinary share underlying each warrant on the date of grant, based on the information known to us on the date of grant. In connection with the recent warrant grants described in more detail below, our board of directors considered various objective and subjective factors to determine the fair value of our ordinary shares, including: the conclusions of contemporaneous valuation assessments of our ordinary shares by our statutory auditor for Belgian company and tax law purposes, external market conditions affecting the additive manufacturing, software and medical device industries, trends within the additive manufacturing, software and medical device industries, our results of operations and financial position, our business strategy and the lack of an active public market for our ordinary shares.

The enterprise valuation approaches and methodologies used by us are further described below.

Valuation Methodologies

- *Discounted Cash Flow Method*, *or DCF*. The discounted cash flow method estimates the value of the business by discounting the estimated future cash flows available for distribution after funding internal needs to present value.
- *Multiples Method*. The multiples method estimates the value of a business by comparing a company to similar publicly-traded companies and evaluating their enterprise multiples (the ratio of enterprise value to EBITDA). When selecting the comparable companies to be used under this method, we focused on companies within the additive manufacturing, software and medical device industries.

The key subjective factors and assumptions used in our valuations primarily consisted of: (i) the selection of the appropriate valuation model, (ii) the selection of the appropriate comparable publicly-traded companies, (iii) the financial forecasts utilized to determine future cash balances and necessary capital requirements, (iv) the estimated weighted average cost of capital and (v) the discount for lack of marketability of our ordinary shares. At each valuation date, we used our then current budget or forecast, as approved by our board of directors, to determine our estimated financing needs and forecasted cash balances.

Recent Equity Awards

The following table summarizes the equity awards we have made in the past 12 months (after taking into account the 4-for-1 stock split of our ordinary shares to be effected concurrently with the closing of this offering):

Date of Grant	Plan	Number of Warrants	Type of Securities Upon Exercise	Number of Securities Upon Exercise	V	Share Fair Value ros)(1)	Fai	r Share r Value llars)(2)	Estimated Offering Price per Share
October 2013	2013 Warrant Plan	75,274	Ordinary Shares	301,096	€	1.97	\$	2.71	\$ [***]
December 2013	2013 Warrant Plan	5,500	Ordinary Shares	22,000	€	2.14	\$	2.95	\$ [***]
January 2014	2013 Warrant Plan	36,200	Ordinary Shares	144,800	€	2.14	\$	2.95	\$ [***]

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- (1) For grants made in October 2013, our board of directors approved on October 15, 2013 the fair value of our ordinary shares, based, in part, on a September 27, 2013 assessment from our statutory auditor regarding our proposed per share valuation. For grants made in December 2013 and January 2014, our board of directors approved on November 26, 2013 the fair value of our ordinary shares, based, in part, on a November 26, 2013 updated assessment from our statutory auditor regarding our proposed per share valuation
- (2) Amounts in this column have been converted from euros to U.S. dollars solely for the convenience of the reader at an exchange rate of \$1.3777 per euro, the exchange rate on March 31, 2014.

Initial Public Offering Estimated Price Range

On June [], 2014, we determined an estimated price range of \$[***] per ADS to \$[***] per ADS for this offering. As is typical in initial public offerings, the price range was not derived using a formal determination of fair value, but instead was determined primarily through negotiation between our underwriters and us. Among the factors that we considered in setting the estimated price range for the offering were the following:

- an analysis of the typical valuation ranges seen in recent initial public offerings by companies in the additive manufacturing, software and medical device industries, and by companies conducting initial public offerings generally;
- the recent market prices of, and the demand for, publicly-traded common equity of companies in our industry, and public companies generally;
- the general condition of the securities markets;
- an assumption that there would be a receptive public trading market for additive manufacturing, software and medical device companies such as ours:
- an assumption that there would be sufficient demand for the ADSs to support an offering of the size contemplated by this prospectus; and
- preliminary discussions with the underwriters concerning the potential valuation of our company.

The midpoint of the estimated price range for this offering of \$[***] per ADS reflected a significant increase over the valuation of our ordinary shares as determined by our board of directors as of November 26, 2013, which, converted into U.S. dollars, was \$2.95 per share. We believe that the price difference is primarily attributable to the fact that the methodology for determining the two prices is different in important ways, including the following:

The fair value of our ordinary shares as of November 26, 2013 was determined by our board of directors based, in part, on the consideration of an
assessment from our statutory auditor regarding the proposed per share valuation that considered the application of a present value discount factor
and a discount for lack of marketability.

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- In contrast, the estimated price range assumes that the contemplated initial public offering has occurred and a public market for the ADSs has
 been created, and therefore excludes any discount for lack of marketability of our ordinary shares. In addition, our discussions with the
 underwriters in preparation of this offering considered increased optimism with respect to market conditions and the initial public offering
 market, which contributed to an increase in the value of the ADSs indicated in the estimated price range.
- Further, the proceeds of a successful initial public offering will strengthen our consolidated statement of financial position by increasing our cash and cash equivalents. Additionally, the completion of this offering will provide us with access to the public company debt and equity markets. These projected improvements in our consolidated financial position influenced the increased ordinary share valuation indicated in the estimated price range.
- Moreover, we believe that there are investors in the public market who may use a more qualitative and subjective methodology to determine the price they are willing to pay in an initial public offering. As a result, the price that investors are willing to pay in this offering may take into account other factors that have not been expressly considered in our prior valuations, are not objectively determinable and that valuation models are not able to quantify. Based on qualitative and subjective factors, investors might conclude that the valuation could justify, in part, a higher valuation than the November 26, 2013 valuation. For example, the inherent uncertainty of completing a successful initial public offering and the possibility that the actual offering price could be substantially lower than the estimated offering price range could impact the price an investor is willing to pay for the ADSs at the different points in time.

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